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Family Structure and Adolescent Opposite Sex Relationships

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Abstract

Motivated by the significance of romantic relationships for adolescents plus a dearth in knowledge about these relationships, we investigated the linkage between family structure and sexual intercourse and romantic relationships. We also investigated whether family processes mediated these linkages, separately by gender. Using a sample drawn from two waves of the Add Health (N=13,337), we found that those in single and stepparent families were much more likely to have sex and somewhat more likely to form a romantic relationship between waves. The strongest mediating factors were parental socialization and social control (for boys only). Analyses provide little support for the idea that adolescents form romantic relationships to compensate for emotional loss associated with parental divorce and remarriage.

Family Structure and Adolescent Opposite Sex Relationships

The formation of intimate heterosexual relationships is a key developmental task in adolescence (Erickson, 1963; Thornton, 1990; Tolman, 2003). Nearly all adolescents express an interest in dating, and by late adolescence, most have experienced an exclusive heterosexual romantic relationship (Connelly & Goldberg, 1996; Steinberg & Morris, 2001). These romantic relationships, in turn, help young people define who they are (Feiring, 1999) and serve as a source of social status, with those romantically involved more likely to view themselves and be viewed by others as attractive, popular, and interesting (Dunphy, 1963; Savin-Williams & Berndt, 1990). At the same time, romantic relationships can be problematic, with romantically-involved adolescents, especially girls, more depressed than their unattached peers (Joyner & Udry, 2000). Sexual relationships are another hallmark of adolescence, with nearly three quarters of young people experiencing sexual intercourse by late adolescence (NSFG, 2002). Sexual intercourse in adolescence often occurs within the context of romantic relationships; however, it can also occur independently of them (Miller & Benson, 1999; Ford, Sohn, & Lepkowski, 2001). Like romantic relationships, sexual relationships can also be both beneficial and problematic for young people during adolescence and beyond, providing them a context to explore sexuality and gain social status, especially for boys (Martin, 1996; Thorne & Luria, 1986), and also increasing their likelihood of unintended pregnancies, sexual transmitted infections, psychological distress, and academic risk (Billy, Landale, Grady, & Zimmerle, 1988).

Understanding the factors that influence these forms of opposite sex relationships, then, remains an important task. The family, especially its structure, has long been linked with the sexual lives of adolescents. Specifically, adolescents in single parent and stepparent families engage in sexual intercourse earlier than do those in two-biological married parent families

(Hogan & Kitagawa, 1985; Newcomer & Udry, 1987; Thornton & Camburn, 1987; Albrecht & Teachman, 2003; Miller, Norton, Curtis, Hill, Schvaneveldt, & Young, 1997). More of an unknown is the role of family structure in adolescents' romantic relationships. Given the overlap between adolescent romantic relationships and advanced sexual behaviors (McCabe & Collins, 1984; Miller, McCoy, & Olson, 1986), we expect that family structure will also be linked with young peoples' romantic lives, with those in single parent and stepparent families more likely to engage in romantic relationships than other youth. The first objective of this study, then, is to investigate the links between family structure and adolescent sexual intercourse and romantic relationships. Because the salience and implications of these types of opposite sex relationships are gendered, these linkages will be explored separately for girls and boys (Maccoby, 1998; Thorne & Luria, 1985).

Many of the explanations that link family structure with adolescent sexual behavior point to differences in family processes involving parenting behaviors and the parent-child relationship (Hogan & Kitagawa, 1985; Longmore, Manning, & Giordano, 2001; Miller, McCoy, Olson, & Wallace, 1986; Weinstein & Thornton, 1989). What is less clear is which family processes are most central to this association. Does the association arise because of socialization, the quality of the parent-child relationship, and/or the levels of discipline and control parents have over their adolescent's behavior? Although the mediating role of family processes has not been extended to adolescent romantic relationships, we also expect that some of the same factors that explain the association between family structure and adolescent sexual intercourse may also apply to adolescent romantic relationships. The second goal of this study, then, is to investigate the family process factor or factors—parental social control, emotional compensation, and parental

socialization—that best explain the link between family structure and each dimension of adolescent opposite sex relationships, again, separately for boys and girls.

To pursue these goals, this study draws on the National Longitudinal Study of Adolescent Health (Add Health). Using the family process paradigm as a guide, we investigate the interplay of family structure, family processes, and gender on the opposite sex relationships of a representative sample of American adolescents.

Family Structure, Family Processes, and Opposite Sex Relationships

The well-documented association between family structure and adolescent sexual intercourse is the backdrop for this study. The first goal of this study is to extend this line of research by examining whether this association also holds for romantic involvement. The second goal of our study is to investigate why these linkages exist. Guided by the family process paradigm, we expect the link between family structure and adolescent romantic relationships, like the link between family structure and sexual intercourse, may be partly explained by differences in family processes across different family structure statuses. The processes that we expect will explain sexual relationships are not always the same as the ones that explain romantic relationships, but each process is affected by family structure and has implications for adolescent behavior.

Broadly, the family process paradigm posits that alterations in family roles and functioning brought on by changes in family structure, such as a divorce, remarriage, or parental cohabitation explain family structure differences in adolescent well-being. Parental divorce and repartnering often sets in motion inconsistent or compromised parenting behaviors, brought on by parental stress, economic insecurity, changes in a resident parent's work schedule, parental dating, and/or the adjustment to new household members (Amato 2000). These changes, in turn,

introduce stress and uncertainty into young people's lives, affecting the opportunities they have and the decisions they make.

We consider three sets of family processes. The first, *parental social control*, reflects the degree to which parents' monitor and supervise their children's everyday lives to reduce their opportunities to engage in proscribed behavior, including behaviors with opposite sex peers. Consistent with social control theory, this perspective posits that parents in alternative families provide less supervision than do those in two-biological parent families, leaving young people more opportunities to engage in sexual intercourse. Compared to parents in two-biological parent families, single parent families may be less able to set and enforce curfews and other family rules because there are fewer adults present and because they may have less clearly defined authority structures within the home (Hogan & Kitagawa, 1985; Matsueda & Heimer, 1987; McLanahan & Sandefur, 1994; Nock, 1988). Stepparent families may also be less effective in monitoring children's behavior as the stepparent may lack the legitimacy given to biological parents and/or have less incentive to invest time into the children living in their homes (Thornton, 1991; Thompson, McLanahan, & Curtin, 1992).

Overall, social control theory predicts that adolescents in single and stepparent families are more likely to be sexually active than adolescents from two biological parent families. This explanation does not necessarily predict any association between family structure and romantic involvement—social control theory provides explanations only for behaviors that parents disapprove. Parents may be less likely to disapprove of romantic involvement compared to sexual activity, or may actually want their adolescents to date or participate in other romantic activities. Consequently, if social control and supervision are the primary reason for the association between family structure and adolescent sexual activity, then we expect that family

structure is associated with only sexual relationships, not romantic activity. We also expect that the estimated effects of family structure on sexual involvement will be reduced once we take into account parental social control.

Another set of family processes that may link family structure and adolescent's romantic relationships and, to a lesser extent, sexual relationships, is described by what we call the *emotional compensation explanation.* Regardless of family structure, theory suggests that most adolescents, as part of the individuation process in which they develop a clearer sense of self as separate from parents, seek out emotional autonomy and connections with peers, especially opposite sex peers (Blos, 1979; Gray & Steinberg, 1999). In the case of parental divorce or remarriage, the changes in the family and home environment may exacerbate this process, affecting how close adolescents feel to their parents as well as how much social support they receive from their families in general, driving them toward romantic relationships. For instance, adolescents with divorced parents report that they receive less advice from their fathers and are less satisfied with the support that they receive (Barber, 1994). Parental divorce is also associated with higher levels of parent-teen conflict and lower levels of parent-child attachment (Ruschena, Prior, Sanson & Smart, 2005). Moreover, the addition of a parent's new partner and possibly children in the home may leave young people in stepparent families feeling even less attached to their parents and other family members (Goldscheider & Goldscheider, 1998).

Adolescents who lack sufficient support from their families may form closer, more intense relationships with other adolescents to compensate for what their families do not provide. If this explanation is true, then we expect that adolescents from single parent and stepparent families may respond to this by seeking out romantic and, to a lesser extent, sexual relationships (Albrecht & Teachman, 2003; Baurmrind, 1991; Goldschieder & Goldscheider, 1998; Thorton,

1991; Wolfinger, 2003). We also expect that controlling for indicators of emotional compensation will reduce the estimated effects of family structure on adolescent romantic relationships and sexual involvement.

The final set of parenting behaviors we explore focuses on *parental socialization*. This mechanism posits that parents' romantic lives serve as a model for young people. Parents in alternative families have less restrictive attitudes about sexuality and dating (Thornton & Camburn, 1987). Moreover, young people in alternative families may be more aware of their resident parents' sexuality and dating behaviors because of their parents' own dating relationships (Thornton & Camburn, 1987; Whitbeck, Simons, & Kao, 1994).

Young people in stepparent families and, to a lesser extent, single parent families, then, have had the opportunity to observe their resident parents' dating behaviors and (often) their initiation of new sexual relationships. Therefore, they have been socialized to view non-marital sexual relationships as acceptable (Albrecht & Teachman, 2003; Thornton & Camburn, 1987). Given this, we expect that young people in alternative families will be more likely to have sexual relationships and that this association will be reduced once parents' attitudes are controlled.

Observing parents' dating relationships might also increase the likelihood that adolescents form romantic relationships, although there is little research to draw on to support this hypothesis. On the one hand, those in stepparent families (especially those formed after early childhood) had an opportunity to observe their parents form a new romantic relationship. Just as parents who remarry likely were sexually involved prior to marriage and thus may (inadvertently) convey that nonmarital sexual relationships are acceptable, they may also be communicating the value of romantic involvement. Having observed this may increase the tendency of adolescents to form romantic relationships. If this is the case, then we might expect

that adolescents in stepparent families are especially likely to form romantic relationships themselves. On the other hand, parents who stay married throughout the child's early life may also be communicating the value of romantic relationships. If so, then we might expect that those from two parent families to be more likely to form romantic relationships, especially compared to those from single-parent families. Unlike the other mediating factors, we have no direct measure of parent's values regarding romantic relationships.

The Timing of Family Structure Change

Thus far, our discussion of family structure has implied that these statuses are static, fixed-in-time, family arrangements. Yet, both retrospective and prospective reports of family structure histories suggest that family structure is often dynamic, evolving, and, in some cases, unstable (Bumpass & Lu, 2000; Teachman, 2003; Wu & Martinson, 1993; Hao & Xie, 2002). This complexity in family structure can be operationalized in a number of ways. For this study, we focused on the life stage during which an adolescent's current family structure was established. We expect that this will affect the family processes described above, which in turn, will affect adolescent opposite sex relationships.

The life stage during which a particular family type was established taps the extent to which household members are able to set and negotiate practices, rules, and relationships within the family; in other words, family processes (Wu & Martinson, 1993). Consider, for instance, a 16 year old adolescent born to a single mother whose mother remarries when the child is 3 and stays married. This adolescent shares the same *current* family structure status as another 16 year old who resided in two-biological married parent family through age 12, then experienced a parental divorce, and then the remarriage of her resident parent at age 14. The family processes

that define each of these families are likely different, thereby differentiating the implications of this particular status for adolescents (Hao & Xie, 2002).

Overall, we expect that the younger the adolescent was when his or her current family structure was established the less compromised the family relationships and parenting practices are, and the less likely young people will engage in sexual or romantic relationships. For example, the social control argument is based on the notion that alternative families are less capable of establishing and enforcing rule, in part because they are perceived as less legitimate by young people. Yet, single parent and stepparent families that were initiated in the adolescent's early childhood may have a better established authority structure in the home compared to more newly established families and therefore this family process dimension may be less salient to adolescent behavior. For these reasons, we also expect that this mechanism will be less important to young people in families initiated during early childhood.

In terms of the compensation argument, we expect that this factor will also be less strong for young people who have resided in the current family structure since early childhood. The emotional compensation argument stems, in part, from the stress association with family change, the declines in parent-adolescent closeness, the distance between siblings and other family members following the exit or introduction of household members. These stressors diminish over time (Amato, 2000) and therefore, may be less salient for young people in longer established alternative families.

Finally, in regard to the parental socialization argument, we expect that young people in single parent and, especially, stepparent families that were established in early childhood will have less exposure to their parents' dating behaviors. Moreover, we expect that their parents will have more restrictive views about dating than single parents or stepparents who are newer to this

status. For these reasons, we expect that this mechanism will be less important to young people in families initiated during early childhood.

RESEACH DESIGN AND METHODS

Source of Data and Sample

The data for this research come from Add Health, a nationally representative study of adolescents in grades 7 through 12 in the U.S. in 1995. Add Health was designed to explain the causes of adolescent health and health behavior with special emphasis on the multiple contexts in which adolescents live. This study used a multistage, stratified, school-based, cluster sampling design. For each study school, Add Health collected an in-school survey from every student (about 90,000) who attended on the day of administration. About one year later, Add Health selected a nationally representative sample from this pool of students to participate in an in-home interview. These interviews were conducted between April and December 1995 and yielded the Wave I data. The Wave II in-home interview was nearly identical in content and form to Wave I and was conducted between April and September 1996 (see Bearman, Jones and Udry, 1997). Overall, about 14,700 adolescents completed both waves of the in-home interview.

Because analyses required data from both in-home interviews, the sample was limited to adolescents who participated in Waves I and II and who also had valid sampling weights that adjust for the differential likelihood that certain social groups were included (Chantala & Tabor, 1999). The analytic sample used in these analyses includes 13,337 adolescents—6,826 girls and 6,511 boys.

Measures

Table 1 presents descriptive statistics for all study variables by gender.

[Table 1 about Here]

Sexual intercourse between the Waves I and II was the first outcome considered. At both waves, adolescents were asked, via audio-CASI, "Have you had sexual intercourse? When we say sexual intercourse, we mean when a male inserts his penis into a female's vagina." If adolescents responded yes to this question, they were also asked in what month and year they had intercourse most recently. For adolescents who reported they were virgins at Wave I, this measure equaled 1 if they reported having had sexual intercourse in the Wave II interview. For adolescents who were not virgins at Wave I, those who reported a date of most recent sex that followed the Wave I interview, we consider them to have had sexual intercourse between waves. All others were coded as 0. About 38 percent of girls and 35 percent of boys reported having a sexual relationship.

The second outcome was a dichotomous indicator of heterosexual *romantic relationship* formation between Waves I and II. Romantic relationships included those that the respondent identified as being romantic as well as other relationships that included hand holding, kissing, and telling the other that you like or love them, even if they were not considered "romantic" by the adolescent. Respondents who provided a relationship start date that was later than the date of Wave I interview were coded as 1. Also, if a respondent was not in a romantic relationship at Wave I but reported being in a relationship at Wave II and did not know the relationship start date, they were consider to be in a relationship formed between waves. Just over 40 percent of boys and girls report having a romantic relationship.

Family structure was indexed with a set of measures that reflected the life stage during which the Wave I family structure was established. Respondents completed a household roster in which, among other things, they listed current household members (e.g., mother, father, father's wife, mother's partner, brother, grandmother) and the duration of their life spent living

with them. From these reports, we classified young people into four family structure types: two-biological parent families (n = 7,376), stepparent families (n = 2,201), single parent families (n = 3,314), and other families (n = 679), which includes surrogate parents (foster, relative, other parent type) as well as families with no parent or no person acting in a parenting role.

Next, we divided these family structure types into those established before age 6 and those established after age 6. For each family structure type, those who were less than age 6 when the Wave I family structure was established were coded as established early, all others were coded as established late. Adolescents in two-biological parent families, the most common family structure, serve as the reference group[1].

All indicators of family processes were based on youth reports collected at Wave I. Two measures tap aspects of the parental social control mechanism. *Parental control* was based on seven items that asked adolescents if they made all of their own decisions about 1) curfew on weekends, 2) friends, 3) clothes, 4) how much television to watch, 5) which TV shows to watch, 6) time to go to bed on week nights, and 7) what to eat. Each item was reverse coded so that higher values indicated greater parental control. The index averaged these items across adolescent reports (α = .63). *Parental presence*, ranging from 0 to 4, indicated whether a parent was present in the home most or all of the time the adolescent went to school in the morning, came home from school in the afternoon, ate evening meals (5 - 7 dinners a week), and went to bed at night.

The emotional compensation mechanism was measured with two family process indicators. The first, *family connectedness*, was the mean response to four items (0 = low to 4 = high) that asked adolescents how much people in their family understood them, how much they

[1] All but 47 adolescents in two-biological parent families at Wave I resided in families that were initiated at age 6 or earlier. Given the small proportion in later initiated families, we decided to combine all two-biological parent families at Wave I into a single category.

and their family had fun together, how much they wanted to leave home (reversed), and how much their family paid attention to them (α = .74). The second was based on a series of items that asked adolescents about their level of closeness to their resident mother and father, including biological and stepparents, as well as their closeness to non-resident biological mother or father, their satisfaction in their relationship with their resident mother and father, the extent to which they felt their resident mother and father were warm and loving to them and cared for them, and their satisfaction with their communication with their resident mother and father. Each item was asked about each parent separately. To create a measure that indicates whether the adolescent is close to any parent figure, the maximum value for each item (i.e., the higher score on satisfaction in relationships with resident mother and father) was selected. *Parent-adolescent closeness* was the mean response (0 = low to 4 = high) of these five items (α = .83).

These two indicators, family connectedness and parent-adolescent closeness, have often combined into a single scale (Crosnoe, 2004) but other researchers suggest that more global measures of family relationships obscure the mechanisms by which family processes explain adolescent development (Dorius, Bahr, Hoffman, & Harmon, 2004). Because of the focus on different family forms which include biological and stepparents parents as well as full, step, and half siblings, it was important to uncouple these aspects of family relationships. Although these items were correlated, the *r* is less than .55.

Finally, *parents' attitudes about adolescent sexuality and contraceptive use,* tapped the socialization mechanism. Adolescents were asked three items (0=strongly disapprove to 4 = strongly approve) about how the resident mother and father would feel about them having sex now, how each parent would feel about them having sex with someone who was special to them and they knew well, and finally, how each parent would feel about them using birth control.

Each item was asked about each parent, biological or step, separately. For each item, the value of the resident parent who was more permissive was selected to construct the mean response for these items (α =.80).

Three individual level controls, all measured at Wave I, were also included in our analyses. The first was self-reported *age*. The average age of the sample was about 14. *Race and ethnicity* (dummy variables for Latina/o, non-Latino Black, non-Latino White, and other) was also included. Finally, in models predicting sexual behavior at Wave II, adolescent virginity status at Wave I was included. Those who did not have sexual intercourse by Wave I were considered *virgins at Wave I*.

Parents' educational attainment, a family level control measured at Wave I, was also included in the analyses as it affects both the risk of residing in an alternative family and of engaging in advanced social behaviors, including sexual intercourse and dating (Martin and Bumpass 1989; Miller et al. 1997). This item was based on youth reports of parents' highest level of completed schooling. Responses were coded into three dummy variables: post high school education, a high school graduation or GED (reference category), or less than high school graduation. Those who did not know their parents' level of education were included in the reference category. For two-parent families, this measure was based on the more educated parent's level of education.

Analytic Techniques

The first goal of this study was to investigate the linkages between family structure and adolescent sexual behavior and romantic relationships. For each outcome, we estimated logistic regressions in which each dimension of opposite sex relationships was regressed on family structure duration plus the full set of control variables. These models serve as our baseline for

understanding the presence and strength of the associations between family structure and adolescent opposite sex relationships.

Next, we investigated which family process dimensions explained or mediated these associations, the second goal of this study. Each of the linkages between family structure, parenting processes, and opposite sex relationships was tested (Baron & Kenny, 1986) and indicated a significant association between the linkages but, for the sake of brevity, only findings from full mediating models were presented (full results available upon request). Beginning with sexual intercourse, a total of four additional models were estimated. Building on the baseline model described above (Model 1), Model 2 tested the independent contribution of the parent social control mechanism, Model 3 tested the emotional compensation mechanism, Model 4 tested the socialization mechanism, and the final model tested the joint effect of each dimensions of family processes considered. We also estimated an additional model predicting romantic involvement. This model investigated whether emotional compensation mediated the association between family structure and the formation of a romantic relationship. We also tested whether our measures of social control were <u>not</u> associated with romantic involvement—these finding are discussed but not shown. Because we have no measure of parents' attitudes about romantic involvement, we are unable to test this mechanism with a mediation model.

Changes in coefficients associated with family structure in the baseline model were compared to those in the subsequent models to determine which of these factors, independently and jointly, mediated the association between family structure and adolescent experiences with the opposite sex between waves. Again, all models were estimated separately for girls and boys. We used sampling weights in all analyses to adjust for Add Health's complex sampling design.

A robust cluster estimator was also used to adjust standard errors for the clustered nature of the sampling frame (StataCorp, 2001).

RESULTS

Family Structure and Adolescent Opposite Sex Relationships

The first goal of this study was to describe the association between family structure and adolescent experiences with the opposite sex, with a particular interest in romantic relationships as prior research has not investigated this association. Table 2 shows the results from logistic regression models predicting sexual intercourse and having had a romantic relationship between Wave I and Wave II. Beginning with sexual behavior, we found that boys and girls in single parent and stepparent families, regardless of when initiated, were significantly more likely to have sexual intercourse between the waves compared to those in two-parent families. We also investigated whether the association between family structure and sexual intercourse varied by age at Wave I and found that for boys, the likelihood of engaging in a sexual relationship for those in a single parent family initiated after early childhood or a stepparent family initiated during early childhood was stronger for younger teens (findings not shown).

[Table 2 about Here]

What is new to these analyses is our investigation of the association between family structure and *romantic involvement*. For both adolescent boys and girls, being in a single parent or a stepparent family initiated after early childhood was associated with an increased likelihood of forming a new romantic relationship between Wave I and Wave II. For girls only, we observed increased romantic involvement for those in stepparent families initiated before age 6. The coefficients for the models predicting romantic involvement were generally smaller than those from the models predicting sexual intercourse. We also investigated whether age at Wave

I moderated the association between family structure and the formation of romantic relationships but found no significant effects for either boys or girls.

Taken together, these findings suggest that family structure is related to both aspects of adolescent opposite sex relationships but more strongly with sex than romance. That we find any influence of family structure on romantic involvement indicates that social control is probably not the only family process that connects family structure to adolescent relationships with the opposite sex. Moreover, we find that being in a stepparent family has stronger effects than being in a single parent family, consistent with the emotional compensation argument and one version of the socialization explanation. The following analyses investigate more directly the question of which mechanisms connect these two aspects of adolescent lives.

Family Structure, Family Processes, and Adolescent Sexual Intercourse

Is the association between family structure and adolescent sexual intercourse mediated by the hypothesized family processes? If so, which aspects of family relationships and parenting behaviors best explain this linkage? The second set of analyses investigates these questions, exploring whether the three dimensions of the family context—parental socialization, adolescent compensation, and parental social control—individually and jointly, mediate the association between family structure and adolescent sexual intercourse for girls and boys.

We begin with models predicting sexual intercourse for girls, shown in the top panel of Table 3. Model 1 replicates the findings presented in Table 2, and Model 2 introduces variables describing the first family process we considered, parental social control. Although parental control was negatively associated with the likelihood of adolescent sexual intercourse, adding parental control and parental presence had no meaningful effect on the coefficient describing the association between family structure and girls' sexual behavior.

[Table 3a about Here]

Next, we considered the independent effect of the variables testing the emotional compensation argument (Model 3). Parent-adolescent closeness was not associated with sexual intercourse but family connectedness was, with girls who felt more connected with their families significantly less likely to engage in sexual intercourse than others. Even so, controlling for these factors had only a modest impact on family structure coefficients, with the coefficient associated with single parent families initiated after early childhood reduced by only 5% and the coefficients associated with stepparent families, regardless of when initiation, reduced by no more than 13%.

Parental socialization is the final family process dimension considered (Model 4). This factor was positively associated with girls' likelihood of engaging in sexual intercourse, with more permissive parental attitudes about adolescent sex and contraception associated with an increased likelihood of adolescent sexual intercourse between waves. Taking this factor into account also attenuated family structure effects. For example, the coefficient associated with stepparent families initiated after early childhood was reduced by about half (b = .35 in baseline, b = .21 in Model 4) and was no longer statistically significant. Such an effect suggests that differences in parents' attitudes about sexual behavior, or at least adolescent perceptions of these attitudes, were meaningful in understanding differences in the likelihood of sexual intercourse for girls. The effect of being in a stepparent family initiated before age 6 was also reduced in Model 4, although it remains significant. The effect of being in a single parent family was unaffected by taking parent's attitudes about sex into account (b = .66 in baseline, b = .65 in Model 4).

The final model considered the joint effect of these family process measures (Model 5). Parental attitudes about sexual behavior and family connectedness remained significantly associated with girls' likelihood of sexual intercourse between waves in the full model; parental control was no longer associated with this outcome. The joint effect of these mediators, however, explained little beyond what the more parsimonious Model 4 explained. That is, parental attitudes, by itself, provided the most leverage in explaining the linkage between family structure and the likelihood that girls' engage in sexual intercourse between waves. Differences in family connectedness, especially for girls in stepparent families, also explained a modest portion of the linkage between family structure and girls' sexual behavior.

The same set of models was estimated to explain the linkage between family structure and the likelihood of sexual intercourse for boys. We present these results in the bottom panel of Table 3. Unlike for girls, boys whose parents' exerted more control over their behaviors and were more present in the home during the course of the day were less likely to engage in sexual intercourse between waves (Model 2). Once taken into account, these factors attenuated the family structure coefficients, reducing the coefficients associated with boys in single parent and stepparent families, each initiated after early childhood, by 24% (b = .68 in baseline, b = .52 in Model 3) and 18% (b = .39 in baseline, b = .32 in Model 3), respectively. These associations, however, remained statistically significant with controls for social control in the model.

[Table 3b about Here]

Turning to the emotional compensation mechanism, parent–adolescent closeness was not associated with boys' likelihood of sexual intercourse but family connectedness was, with boys who felt more connected with their families less likely to engage in sexual intercourse between waves than all others (Model 3). These factors, however, explained very little of the family

structure effect. In fact, the family structure coefficients are similar in Model 3 to what they were in Model 1.

Parents' attitudes about sexual behavior were also significantly associated with sexual intercourse for boys (Model 3). Controlling for this factor also attenuated the association between family structure and boys' sexual behavior, with the coefficients associated with single parent and stepparent families initiated after early childhood reduced. In the case of stepparent families, the coefficient decreased by nearly a quarter (b = .39 in baseline, b = .29 in Model 4).

The final model considered the joint effect of the family process indicators on the likelihood of sexual intercourse between waves for boys (Model 5). Parental attitudes about sexual behavior and parental control and presence remained significantly associated with boys' likelihood of sexual intercourse between waves in the full model. Family connectedness, however, was no longer significant. The joint effect of these mediators explained much of the significant family structure effects identified in the baseline model. For instance, the coefficient associated with single parent families initiated after early childhood, although still significant, was reduced by more than a quarter (b = .68 in baseline, b = .47 in Model 4) and the coefficient associated with stepparent families initiated after early childhood was no longer significant and reduced by 40% (b = .39 in baseline, b = .23 in Model 4). Both social control and boy's perceptions of their parents' attitudes about adolescent sex and contraception played about equal roles in explaining family structure differences in boys' sexual behavior.

Family Structure, Family Processes, and Adolescent Romantic Involvement

Finally, we investigated which family processes mediated the association between family structure and adolescent romantic relationships. In the background section, we explained that we did not expect parental social control to influence adolescent romantic involvement, and indeed it

does not (analyses not shown). Next, we considered whether measures that tap the emotional compensation mechanism mediated this linkage (see Table 4). As expected, boys and girls who were more connected to their families were less likely to form a romantic relationship. Parent-child closeness, however, was not associated with this outcome. Controlling for these factors, however, did little to explain the association between family structure and romantic involvement for either girls or boys. This suggests that emotional compensation, as operationalized in this study, is not a good explanation for why girls from single parent and stepparent families are more likely to be romantically involved.

[Table 4 about Here]

The final parenting process relates to parental socialization. We suggested that single parents may have a better opportunity than stably married parents to demonstrate that they value romantic relationships through their dating and, even more so, remarriage. We cannot directly test this possibility without a measure of the adolescents' perception of the value parents' place on romantic commitments, but, earlier in this paper, we suggested if the socialization explanation were true, we should see a stronger association between family structure and romantic involvement for those in stepparent families than from those in single parent families (see Table 2). For boys, we observe this pattern. The coefficient associated with stepparent families initiated after early childhood is over 70% larger than the coefficient associated with single parent families initiated after early childhood.

Admittedly, this is weak evidence and depends on the assumption that stably married parents do not communicate that they value romantic commitments as effectively as parents who remarry. Moreover, contrary to the predictions of the socialization explanation, girls from both single and stepparent families are equally more likely to be involved in romantic relationships

than those from two-parent families. Thus, while the emotional compensation argument does not receive any support, the socialization argument receives only weak support for explaining differences in adolescent romantic involvement. It seems likely that there are other mediating family processes we have not yet identified.

DISCUSSION AND CONCLUSION

Family structure has long been implicated in the sexual lives of adolescents. In this paper, we sought to extend this research by considering its role in their romantic lives and also by investigating three family processes—social control, emotional compensation, and socialization—that may explain the connection between family structure and adolescent sexual and romantic relationships for boys and girls. Three themes emerged.

First, we found that family structure is associated with both adolescent sexual and romantic relationships but that the association between family structure and sexual activity is much stronger than the association between family structure and romantic involvement for both boys and girls. Second, these findings suggest that the timing of alternative family structure formation also matters to the romantic and sexual lives of adolescents. In the case of adolescents residing in single parent families, boys and girls in more stable family environments, ones initiated during early childhood, are less likely to engage in either romantic or sexual relationship relationships. For boys in stepparent families, a similar pattern emerges, but for girls, residing in stepparent families, especially those that are longer lasting, is more problematic.

Third, the family processes we considered do play a role in explaining these linkages. Beginning with social control, the results provide some support for this hypothesis. This perspective predicts no relationship between family structure and romantic involvement because many parents expect and even want their adolescent children to be romantically involved but

does predict a relationship between family structure and sexual activity. In fact, the main effects of family structure on each dimension of opposite sex relationships conform, to some degree, to these predictions—measures of social control do not predict romantic involvement, but they do predict sexual intercourse. Moreover, at least for boys, including measures of social control reduces the association between family structure and sexual intercourse.

While social control clearly plays a role, it does not provide a complete explanation. Family structure is associated with romantic involvement. We investigated two other explanations to fill in the picture, emotional compensation and parental socialization. The emotional compensation argument suggests that adolescents from single parent and stepparent families form romantic and sexual relationships to compensate for their poorer relationships with their parents and other family members. We do find that family connectedness is negatively associated with sexual and romantic relationships, and, for girls, controlling for this factor does slightly reduce the association between being from a single parent family and sexual involvement. Nonetheless, controlling for this factor does little to reduce the association between family structure and sexual behavior for boys or for girls from stepparent families. Moreover, it does not explain the association between family structure and romantic involvement, the outcome we expected would be more influenced by emotional compensation. In contrast, controlling for measures of parent's attitudes about sex substantially reduces the association between family structure and sexual behavior.

These analyses not only tell us something about why family structure influences adolescents' lives, they also inform us about a key developmental task in adolescence, the initiation of romantic activity. First, our analyses suggest that emotional compensation is not a major factor encouraging adolescents to become romantically involved. It also appears that

parental control does not influence romantic involvement, which is consistent with our expectation that parents are not opposed to their adolescent's romantic activity. Importantly, there may be race-ethnic variation in this association, with some groups more opposed than others to adolescent dating. Future research should investigate this possibility.

Given the recency with which investigators have begun to examine adolescent romance, there are many questions researchers have yet to answer about the factors that influence this important developmental task. Motivated by a large body of literature showing that family structure influences sexual activity and teenage childbearing (e.g. Wu 1996) and is associated with adult union formation and dissolution (Amato & DeBoer 2001; Goldscheider & Goldscheider 1998), our study investigates the influence of family structure. That family structure influences romantic activity suggests that this may be a key factor in the intergenerational transmission of family formation and stability. Yet we do not examine the broader factors that might influence adolescent opposite sex relationships such as high-school social environment or individual personality characteristics. Moreover, because of data limitations, we are unable to identify a complete explanation for the association between family structure and adolescent opposite sex relationships. Even with all our mediators included in the model, the association remained. Future research should investigate additional potential explanations using alternative data sources. Despite these weaknesses, this paper makes a useful contribution to the literature by providing support for two explanations (social control and socialization) while providing evidence contrary to a common sense explanation for why adolescents from single and stepparent families might be especially likely to become involved with the opposite sex (emotional compensation).

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