Romantic and Sexual Experiences in Adolescence and Later Relationship Instability: How Do Family of Origin Factors Inform the Relationship Life Course?

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The current landscape of American intimate relationships looks dramatically different than it did just twenty years ago. People are delaying marriage, divorcing at record rates, and having more children outside marriage than at any other time in recent history (Coontz, 2004). The literature on family formation is rife with discussions of 'sliding versus deciding', relationship churning, the continued idealization of marriage and the accompanying retreat from that ideal. We are in the midst of what Van de Kaa, Lesthaeghe and other population scholars refer to as the Second Demographic Transition (SDT), or a shift away from traditional conceptions of marriage and childbearing and toward increasing participation in alternative living arrangements (e.g. cohabitation) and a disconnection of marriage from having kids (Van de Kaa, 1987; Lesthaeghe & Neidert, 2006). Evidence for the transition in the United States is increasingly clear. By the time they reach their mid-20s, more than half of young people have lived with a romantic partner, and cohabitation is now the modal residential status preceding marriage (Kennedy & Bumpass, 2008). In addition, the majority of adolescents anticipate cohabiting with a romantic partner at some time in their lives. This expectation likely arises from the increasingly common view of cohabitation as a way of gauging a relationship's chance of long-term success (Manning et al., 2007).

The study of adolescent sexuality is also changing. According to Collins et al., the pool of research on adolescent romantic relationships has grown more in the past decade than during all of the 20th century (2009). Less clear is exactly how much the behaviors being studied have changed, since we have very little information about what teenagers did in the past: researchers have only begun to examine and contextualize adolescent romantic and sexual behavior in the last decade or so (Collins, Welsh, & Furman, 2009). Some sources claim that adolescents now initiate sexual activity at younger ages than previously, and that 'early' sex has become increasingly normative (e.g. DHHS, 1995, cited in Meschke et al. 2000). However, some of our shifting perceptions of teenager's sexual habits may also be the result of frequent coverage of the topic in the popular press, which tends to portray teens as sex-crazed and emotionally shallow (Sassler, 2010).

Whatever changes have taken place, they have not occurred in a vacuum. Adolescents' decisions regarding sex and relationships are informed by their parents and upbringings (e.g. Davis &

Friel, 2001). Both family structure and parent-child relationships have repeatedly been shown to be important for a wide range of children's and adolescents' outcomes, ranging from behavior problems and academic achievement to age at first sex and, later, the likelihood of divorce (e.g. Carlson & Corcoran, 2001; Collins, Welsh, & Furman, 2009; Amato, 1996). We must consider that shifts over time reflect changes in these determining factors as well as in the outcome (sexual behavior), and that any one measure only tells part of the story.

Some of the most traditionally central topics in the field of family sociology, however, have often been studied in relative isolation (e.g. Sassler, 2010). Marriage, for instance, is usually treated as a standalone phase of the life course, with researchers tending to study married couples from the beginning of their marriage relationship rather than the beginning of their dating relationship. Given that adolescence is a period of rapid development, however, and that the average American has his first dating and sexual encounters during this period, it may be important to connect individuals' experiences as teenagers with their later relationship experiences in order to shed light on possible reasons for relationship formation timing, relationship dissolution, and the likelihood of transitioning frequently into and out of relationships. Not only might these relationship outcomes reflect something important about the individuals' early family and relationship experiences, but grasping the possible causes of disruptive relationship transition patterning will lead to better interventions and programming to address problems like the psychological distress associated with divorce.

This project uses a longitudinal dataset, the National Longitudinal Study of Adolescent Health (Add Health), to examine sexual initiation and number of romantic relationships in adolescence, as well as two outcomes in early adulthood, number of sex partners and number of cohabitation and marital transitions. It then explores how family structure and parent-child closeness are related to both these sets of outcomes. These measures reflect a range of possible romantic and sexual experiences and represent an effort to capture two dimensions of adolescents' and young adults' interpersonal interactions. One of the main aims is to identify links—continuities or discontinuities—between adolescence and young adulthood in an effort to determine whether a life course framework lends something valuable to the study of romantic and sexual relationships, as opposed to studying romantic relationships and other behaviors in adulthood without reference to earlier experiences of a similar nature. In addition, research has shown, as will be discussed below, that aspects of the individual's interpersonal environment (parent-child relationships in particular) are important for the individuals'

own relationship outcomes; this project aims to determine whether this is the case for each of the outcomes listed above, some of which have been given very little attention in the literature to date. Finally, an additional goal of this research is to compare the impact of family structure and parent-child closeness and to either replicate or contradict the finding that the two act independently of one another to influence relationship outcomes (Pearson, Muller, and Frisco, 2006).

THEORETICAL BACKGROUND

This paper's conceptual framework is grounded in two theoretical perspectives: the life course perspective, and psychological attachment theory.

The project's general approach to examining romantic involvement is derived from a life course perspective and the accompanying assumption that early life decisions and events influence subsequent experiences in important ways. This influence is reflected in the fact that this research uses longitudinal data to span as much of adolescence and as many romantic relationships as possible, as well as in the hypothesized "linked lives" connection between parent's marital relationships and adolescents' dating behaviors.

The life course framework is based on the idea that developmental outcomes are subject to the influence of intervening life events and circumstances, and that even early events may have far-reaching consequences; the ideas of cumulative advantage or disadvantage and linked lives are central to this perspective (Elder, 1998). For example, individuals from unstable childhood homes are significantly more likely than children from stable homes to experience negative cognitive and health outcomes later in life (e.g. Waldfogel, Craigie, & Brooks-Gunn, 2010). From the life course perspective, then, stems the belief that examining romantic relationships in the context of other, earlier relationships is more valuable and fruitful than studying them in isolation. Because the vast majority of marriages in the United States are preceded by dating or cohabiting relationships, it is important to have some knowledge of those relationships in order to best understand observed characteristics of the marriage. The fact that the age at first marriage in the US is currently very high and rising makes studying the relationships that precede marriage increasingly important because they span more of the life course now than ever before (Goodwin et al., 2009).

Intergenerational trends in family structure provide one important illustration of how the life course perspective can guide research on the factors that impact grown children's romantic

relationships. Amato, for example, found that grown children with divorced parents were significantly more likely to experience a divorce themselves (1996), and Cavanagh, Crissey, and Raley demonstrated that increasing family instability, particularly during middle childhood and early adolescence, is positively associated with involvement in multiple romantic relationships in adolescence (2008). Other evidence points to a link between adolescent dating behaviors and family formation trajectories in young adulthood (Raley, Crissey, & Muller, 2007), a finding that underlines the importance of understanding how dating works for adolescents from different family backgrounds.

Attachment theory provides a rationale for looking at parent-child closeness as a possible predictor of adolescent dating/sexual involvement and later relationship formation and dissolution. Bowlby proposed attachment theory as an inherent motivation explanation for the affectional bonds individuals form with their caretakers (Bowlby, 1982; Belsky & Cassidy, 1994). He hypothesized that an individual's attachment style is established early in life as a result of the quality of his attachment bonds and has a lasting impact on his relationships over the life course (Bowlby; Belsky and Cassidy; Hazan & Shaver, 1987). Although previous research has indicated that nurturant, high-quality parenting has positive payoffs for romantic relationship *quality* in adolescence and young adulthood (Conger, Cui, Bryant, & Elder, 2000), this paper looks at whether this indicator has predictive power for specific discrete behaviors, namely participation and level of involvement in romantic and sexual pursuits. Hazan and Shaver's 1987 analysis, which suggests that attachment theory can be useful as a framework for romantic relationships as well as parent-child relationships, suggests a potentially important link between the two.

Attachment is a very theoretically well-specified concept and is best measured via observation by a trained psychologist. Despite the fact that some recent research in psychology demonstrates that self-assessment measures also seem to do a good job of capturing the psychological constructs underlying adult attachment (Shaver & Mikulincer, 2002), the Adult Attachment Interview (AAI) is still the generally acknowledged gold standard for measuring this construct (Bartholomew & Moretti, 2002). Bartholomew and Moretti explain this reliance on interview measures as follows:

> By definition, individuals with particular attachment strategies deny some types of psychological experiences and/or distort their responses to questions tapping these experiences. AAI advocates would therefore tend to conclude that it makes little sense to ask individuals with insecure attachment patterns direct

> questions about processes that are assumed to be defensively distorted and not open to conscious access" (p. 162).

The purpose of this overview is not to resolve this debate, but rather to point out that attachment is difficult to measure and that the measures used in this research only roughly approximate true attachment. For one, attachment arises from an internal working model (Bowlby, 1982; Belsky & Cassidy, 1995) that is unique to the individual. The items in the dataset being used (Add Health, see 'Methods') that are most relevant to the construct of closeness ask the respondent to report on attributes of the parent: that is, they are other-directed. Also, they are too few in number to give a comprehensive picture of attachment style. For these reasons, the measures created from these items are intended to measure 'parent-child closeness,' since this reflects most closely the nature of the questions asked and does not presume to diagnose the individual's attachment style. In addition, we know that closeness is an important aspect of attachment that predicts many outcomes.

Given the tenets of the life course perspective and the importance of interpersonal relationships to individual's lives, this project will look at indicators of romantic and sexual involvement in both adolescence and young adulthood in an attempt to determine which family and interpersonal predictors from childhood and adolescence are the most salient for relationships down the road.

With respect to specific measures in the data, this paper's aims are, first, to investigate whether and how family structure and parent-child closeness at baseline predict concurrently reported dating and sex behaviors among seventh- through tenth-grade students. A second aim is to determine whether these same baseline predictors are associated with number of sex partners and number of relationship transitions seven years later. In addition, two subsets of data will be combined in one model to see how romantic and sexual experiences in adolescence may mediate the relationships between family structure and parent-child closeness and Time 2 outcomes (number of sex partners and number of transitions into and out of marriages and cohabitations). Lastly, two sets of models will be run, one with parent-child closeness and one without, to determine whether these variables mediate the impact of family structure on the outcomes of interest.

REVIEW OF EXISTING RESEARCH

Although most research on marriage and cohabitation tends to ignore or underplay experiences in adolescence, recently researchers have begun to acknowledge the importance of these formative

years for relationships later in life (Collins, Welsh, & Furman, 2009). In general, research examining this topic has so far uncovered a high degree of continuity between experiences in different phases of the life course (e.g. Raley, Crissey, & Muller, 2007).

This research aims to examine the relationship between two family-of-origin predictors we know to be salient for later outcomes—parent-child closeness and family structure—and sexual and romantic relationship activity across two points in time, adolescence and early adulthood. Each of these predictors has been examined in some depth in the family sociology literature. We know from studies that look at the impact of family structure on grown children's own relationships that experiencing a parental divorce or separation[1] can have long-term implications for child well-being, sexual activity, and later relationship quality and outcomes (e.g. Booth, Brinkerhoff, & White, 1984; Thornton & Camburn, 1987). In addition, some research has been done on the intergenerational transmission of relationship instability beyond parental divorce. In some cases, measures of instability do a better job than static measures of family structure of capturing the cumulative stress of household transitions, and are therefore important to consider when assessing the impact of family-of-origin experiences on relationship behavior (e.g. Raley & Wildsmith, 2004). With respect to parent-child relationships, children's and adolescents' closeness to their parents has been shown repeatedly to significantly impact involvement in sexual and romantic relationships and the outcomes of those relationships (e.g. Roisman et al., 2009).

Relatively little overlap exists between studies of the impact of family structure and studies of the impact of parent-child relationships on later romantic experiences. However, because family structure and parent-child relationships likely influence children via different mechanisms, this project includes both as predictors of adolescent and early adult romantic involvement.

Family structure and sexual experiences

Family structure has long been thought to predict sexual behavior in adolescence and later. An early study by Hetherington, for example, found that girls whose parents were divorced were more sexually active than those whose fathers had passed away (1972). Research has since supported Hetherington's

[1] In most studies, parents who separate are grouped with those who divorce.

conclusion that voluntary family disruption increases an individuals' likelihood of having had sex during adolescence (e.g. Santelli et al., 2000; Davis & Friel, 2001; Meschke & Silbereisen, 1997; White & DeBlassie, 1992). However, it may be the case that living with two parents cloaks the effects of underlying factors like parent-child relationships and quality of parenting. In one of few studies that investigate both possibilities, Davis and Friel find that family context (as measured by quality of the mother-child relationship, maternal supervision, and maternal communication about sex) is a better predictor of sexual initiation among adolescent girls than is family structure (2001). Although the authors do find that girls from single-parent families have a sexual debut rate 1.5 times that of girls from intact families, they find no significant differences between girls who live in stepfamilies and those who live with two biological parents. This distinction between types of non-intact families (stepfamilies versus single-parent families) in terms of later influence is upheld by Longmore, Manning, & Giordano (2001), who also find that adolescents living with both biological parents have a lower risk of first sexual activity than adolescents from single-parent families, but that those from stepfamilies are not significantly different from those with two biological parents. Additional studies reporting consistent findings are reviewed elsewhere (e.g. McLanahan & Sandefur, 1994; Moore, Miller, Glei & Morrison, 1995). Although agreement is not unanimous on this point, much of the recent evidence points to the same conclusion. On the other hand, a 1987 study by Thornton and Camburn showed that the impact of marital dissolution on sexual initiation is *stronger* for adolescents who reside with a step-parent, and Upchurch and others found that adolescents who live with *either* a single parent or a stepparent initiate sex earlier than do those living with two biological parents (1999).

The empirical question of whether the effects of family structure and family relationships work independently has gone largely unanswered. One study by Pearson, Muller, and Frisco, however, finds evidence that positive parent-child relationships and high levels of family involvement delay sexual initiation, and that these effects do not mediate the relationship between family structure and sexual debut (2006). That is, the two sets of factors act independently. However, more research addressing this question is needed.

A growing body of research also supports the idea that number of family transitions may be more important than family structure at a given point in time for predicting a number of outcomes, sexual initiation among them. Wu and Thomson use a count measure of cumulative family structure transitions to predict sexual behavior and find that, for white females, the number of family transitions

experienced is positively related to the risk of first sexual intercourse, but that living in a single parent family is not related to the likelihood of having had sex (2001). The authors also find marked race differences in what predicts sex: For black women, the likelihood of having had sex in adolescence increases with amount of time spent in a mother-only, father-only, or mother-stepfather household. These conclusions with respect to the importance of number of transitions as well as the race difference are consistent with other researchers' findings (e.g. Albrecht & Teachman, 2003).

Family structure and relationship transitions

Family structure not only impacts offspring's romantic and sexual experiences in adolescence, but presages marital and other relationship outcomes in adulthood as well (e.g. Bumpass, Martin, and Sweet, 1991: Mueller & Pope, 1977). Early research on the relationship between parental divorce and marriage found that women whose parents divorced before they reached the age of 16 scored lower on predictors of marital stability and were more likely to marry young than were their peers with continuously married parents (Mueller & Pope, 1977). Children of divorce also display increased courtship activity (e.g. Booth, Brinkerhoff, & White, 1984) and cohabit at higher rates than grown children living with two biological parents (e.g. Axinn & Thornton, 1991). The tendency on the part of children of divorced parents to commence sexual relationships and cohabit prior to marriage may result from observation of their parents' sexual activity and cohabitation behaviors (Booth, Brinkerhoff, & White, 1984).

Recent work supports these early findings. Two studies by Wolfinger reveal that having divorced parents raises the likelihood of teenage marriage, but that if children remain single past the age of 20 they are *less* likely to marry than are their peers with continuously married parents (2003, 2005). This is in line with Mueller and Pope's conclusion that parental divorce makes early marriage more likely, even while decreasing one's chances of marital stability (1977). These findings suggest that the pathway from parental divorce to offspring's early marriage may be more complicated than is immediately apparent. We do know that the impact of parental divorce is not uniform across all subgroups. Gender differences provide one example: Du Feng and others demonstrate that parental divorce significantly increases the risk of daughter's, but not son's, divorce (in first marriages) until age at marriage is included in the model (1999).

A very recent study found that parental divorce tended to significantly decrease the age at which respondents first cohabited but to slightly increase age at first marriage (Cui, Wickrama, Lorenz, & Conger, 2011). This may reflect a relatively recent shift in attitudes toward premarital cohabitation, but is also consistent with Wolfinger's findings. Taken together, these studies make clear that substantial differences exist between those with continuously married parents and those with divorced parents with respect to several indicators of romantic involvement, ranging from number of sex partners to the likelihood of marrying early versus on time.

Measuring instability

The study of relationship instability captures transitions into and out of relationships, conceptualizing those who experience a greater number of transitions as less 'stable' than those who experience relatively few transitions. Instability measures, which have traditionally referred primarily to marital instability as measured by divorce, now more frequently capture turnover in all types of serious relationships. Not only has the divorce rate hovered at approximately 50% for the past two decades, but rates of remarriage and premarital cohabitation have increased steadily (e.g. Raley & Bumpass, 2003). The resulting landscape of romantic relationships and family formation is much more aptly characterized by measures of change than by indicators of stability or measures of divorce alone, creating a broad canvas of possible relationship statuses and personal histories. In this context, measures of instability are not only appropriate but necessary to understand how this abundance of transition in one sphere impacts other facets of life.

The amount of work done on the correlates of instability as defined by number of relationship transitions rather than by the experience of a single divorce is still relatively small, but growing. Raley & Wildsmith (2004) show that counting only marital transitions when looking at family instability greatly underestimates the actual amount of family structure change experienced by children up to age 12. Much of the research on instability now takes several types of transition, including cohabitation entrances and exits, into account. That being said, the research that has been done indicates similar trends for transition count measures as for dichotomous measures of marital dissolution.

The family change hypothesis is the idea that parental relationship transitions have a cumulative impact on offspring's chances of experiencing one or more marital disruptions. In other words, the more transitions someone's parents experience, the more transitions that individual is likely to experience

(Wolfinger, 2000). Wolfinger's test of this hypothesis measured family instability as number of parental partnership transitions that occurred while the respondent was growing up. His analyses showed that individuals from families that weather multiple stressful transitions are significantly more likely than their peers to dissolve multiple marriages (2000). His findings support Glenn and Kramer's (1987) and Amato and DeBoer's (2001) conclusion that parental divorce increases the likelihood of offspring divorce via lowered commitment to marriage. It stands to reason that this predisposition would result in a greater number of cohabitation and other serious relationship transitions in adulthood as well.

Relationship instability has also been studied as an outcome. Cavanagh, Crissey, & Raley consider the relationship between family structure and children's later relationship instability, and find that, of those individuals who report currently being in a relationship, those in stepfamilies and father-only families had been involved in more relationships over the past 18 months than had those in two-biological-parent households (2008). In addition, the individuals who experienced more instability in their parents' relationships were more likely to report more relationships themselves, as in the studies reported above. Accounting for parental relationship instability attenuated the previously observed association between living with stepparents and engaging in a greater number of relationships.

Parent-child closeness and sexual/romantic experiences in adolescence

The quality of the parent-child relationship is a remarkably consistent and robust predictor of psychological well-being in adolescence (Resnick et al., 1997). According to some researchers, appropriate engagement in romantic relationships is an important indicator of adjustment in this stage of the life course (Carver, Joyner, & Udry, 2003). In addition, adolescents' experiences with romance and sex reflect the quality of current and past relationships with other important figures in their lives, most notably parents (Roisman et al., 2009). It is therefore worthwhile to examine the ways in which adolescents' relationships with their parents influence their sexual and romantic decision-making. In general, teens who are closer to their parents are less likely to initiate sex during adolescence, and although some engage in relationships with romantic partners, those who are close to their parents tend to report relatively few of these relationships.

In a study of young adolescents (up to age 15), Roisman and others find that, although only a relatively small proportion of their sample reported any type of romantic involvement (22% reported currently being in a relationship and approximately one third reported ever having been deeply in love),

positive early experiences with parents decreased the likelihood of intense engagement in romantic partnerships (2009). Among those who reported being in a current romantic relationship, however, high-quality experiences with parents both prior to and during adolescence were associated with higher reported relationship quality.

Many other studies examine the impact of parenting defined more broadly. These studies tend to confirm findings from the parent-child attachment literature: the higher-quality the parenting and the more involved the parents, the better children's outcomes. Although the current project does not use parenting style as a predictor of adolescent sexual behavior, this construct is likely strongly related to parent-child closeness. For example, being raised by indifferent parents ('indifferent' is one of four recognized parenting styles) increases the likelihood of engagement in deviant behavior, including early sex (e.g. Lamborn et al., 1991; Steinberg, Lamborn, Darling, Mounts & Dornbusch, 1994; Steinberg, 2001). Longmore, Manning, & Giordano examined specific parenting behaviors and found that preadolescent parental monitoring delays first sex but that, surprisingly, supportive parenting appears to be unrelated to the timing of sexual initiation (2001).

Blake et al. present evidence from an intervention study that demonstrates the salience of short-term parental involvement for youths' attitudes and intentions with respect to sex. In their study, students who were assigned to work with their parents on a homework assignment on premarital sex reported lower intentions of having sex while in high school and a greater sense of agency with respect to abstaining from high-risk behaviors (2001).

Davis and Friel argue that the quality of the mother-child relationship is a better predictor of adolescent sex than are measures of family structure. This conclusion is partially supported by Upchurch and others, who find evidence for the importance of both family structure and family interpersonal factors in a study using LAFANS data (1999). This study indicates that receiving socioemotional support from parents increases age at sexual initiation for boys but not for girls, whereas parental 'overcontrol' lowers age at first sex for both boys and girls. In addition, a study by King reveals that although parental divorce is negatively associated with trust, this effect largely disappears once the quality of the past parent-teen relationship is taken into account (2002). The one exception is trust in fathers: here children who have experienced a parental divorce remain at higher risk of mistrust. Trust in parents, intimates, and others is strongly linked to positive parent-teen relationships regardless of parental divorce.

Even given all we know about the influence of family structure and parent-child relationships on individual's romantic involvement, very few studies have set out to answer the question of how early experiences with sex and romance influence later ones. The one study that comes closest to the current research provides support for the idea that experiences in adolescence do predict later behaviors: it finds a positive association between involvement in romantic relationships in high school and the likelihood of either cohabiting or marrying in early adulthood (Raley, Crissey, & Muller, 2007).

Applications to the current project

The family sociology literature indicates that individuals from stable families and those who are close to their parents are more likely to delay sex than are their counterparts with divorced parents or who are less close to their parents. This is as we would expect based on both the life course perspective and attachment theory. According to attachment theory, one's relationships with parents are formed early in life on the basis of the nature and quality of care given to the child by the parent. This early attachment formation process determines the individual's attachment style, which is perpetuated and generalized to other attachment figures by way of mental processes reflecting the early experience. Individuals who are securely attached to their parents, therefore, are more likely than insecurely attached youth to enter into stable romantic formations and are less likely, based on these theories, to have sex early.

The general trend with respect to the impact of family structure and parent-child relationships seems to be that individuals who have had more stable and positive experiences in the family environment also report less instability in later outcomes. Change is by its nature stressful, and healthy trajectories tend to be those that minimize stress. If close parent-child relationships are therefore advantageous for youth, which we know them to be, we would expect them to be correlated with stability.

Given the above, we would expect that individuals from intact families or who have close relationships with their parents to report fewer relationships in adolescence, which leads us to the following:

Hypothesis 1: Both family structure and parent-child closeness at baseline will predict sexual initiation at Time 1. Individuals with divorced or separated parents will be more likely to report having had sex, while those who report being close to one or both parents will be less likely to have had sex.

Hypothesis 2: Family structure and parent-child closeness will be associated with number of sex partners at Time 2 (Wave III) such that adolescents with married parents or who are close to their parents will report fewer sex partners than others.

With respect to number of sex partners in adulthood, the younger someone is when they first have sex, the more sex partners they are likely to report in adulthood. This is strictly logical and is theoretically uninteresting. From a life course and attachment theory perspective, however, we would expect that those young people with a solid foundation for interpersonal relationships thanks to parental closeness will delay sex and also have fewer sex partners at Time 2. These adolescents are unlikely to feel the need to rush into relationships or to have sex before they are ready in an attempt to forge an intimate connection they may lack with other important figures in their lives. In addition, this outcome is potentially important from a public health standpoint. According to Santelli and others, the fact that many adolescents and young adults fail to use condoms correctly and consistently means that the number of sex partners they have is a risk factor for sexually transmitted diseases, not to mention unintended pregnancies (1998). In addition, reporting more sex partners in adulthood may reflect a certain amount of relationship instability; that is, those who have been in more relationships will report more sex partners. This variable is not confounded with number of relationship transitions, however, because many sexual encounters are casual. Unfortunately this analysis does not differentiate between casual and within-relationship sex. Regardless, this outcome provides information above and beyond what we already know about the individual's relationship history.

Hypothesis 3: Ever having had sex at Time 1, parental divorce, and relatively less close relationships with parents will be positively associated with number of sex partners reported at Time 2.

We would expect **number of relationship transitions at Time 2** to be predicted by either one or both of family structure and parent-child closeness. For one, family structure can be contextualized using the life course perspective. Family structure (parental marital status) determines many of one's experiences beginning in early childhood. Children with divorced parents often have very different experiences in the family home than do children with continuously married parents, and these changes may manifest from an early age, depending on when the divorce occurs and what types of transitions succeed it. The life course of these children is therefore very different than that of children with continuously married parents. This can be true for a few reasons. One hypothesis is that children tend to model their parents' behavior. Those with divorced or separated parents might model what they

observe and infer of their parents' dating and sex behavior. Another possible reason for different outcomes between these groups comes from a biosocial perspective. Research on this topic suggests that the absence of a biological father or presence of a non-biological father figure in the home may cause adolescent girls to mature more quickly than those who live with a biological father (e.g. Arim et al., 2007; Bogaert, 2005; Quinlan, 2003). Third, it may be that instability in the home creates stress that then leads to less-than-optimal outcomes by way of poor emotional adjustment. This third pathway in particular may be linked to parent-child closeness, such that even those individuals who experience stressful interpersonal transitions in the household as a result of divorce will be protected from negative outcomes later on if they are close to one or both parents. Alternatively, the connection may be more explicit: For example, we know that relationships with fathers tend to be especially important for daughters. If children become less close to their fathers following a divorce, which is usually the case (Scott et al., 2007), daughters in particular may suffer not only from other impacts of the divorce but also from the loss of parent-child closeness with fathers. This reasoning informs the following three hypotheses:

Hypothesis 4: Both family structure and parent-child closeness at baseline will predict number of cohabitation and marital transitions at Time 2, such that parental divorce/separation will be associated with more transitions and being close to one's parents will be associated with fewer transitions.

Hypothesis 5: Number of relationships reported at Time 1 will be positively associated with the number of relationship transitions reported at Time 2.

Hypothesis 6: Parent-child relationships mediate the relationship between family structure and Wave I and Wave III outcomes.

This sixth hypothesis follows, again, from the life course perspective argument that early experiences shape later ones. Because the analogue to number of relationship transitions in early adulthood is the number of relationships experienced in adolescence (despite the fact that relationships mean very different things at different points in the life course), I predict consistency in these similar measures over time.

Finally, I hypothesize that the three measures of romantic/sexual involvement from Wave I will mediate the relationships between family structure and parent-child closeness and the two Wave III outcomes (number of sex partners, number of relationship transitions).

Hypothesis 7: In the cumulative analyses, sexual initiation and number of relationships at Time 1 will mediate existing relationships between family structure and parent child closeness and Wave III outcomes.

This hypothesis follows from the life course perspective, since this finding would indicate that our experiences interact with parts of what we internalize from early experience, meaning that the influence of our formative years changes over time as other experiences accumulate. One way of saying this might be that some of our early inclinations are subsumed in later events.

METHODS

Data and Sample

This research uses Waves I and III of the National Longitudinal Study of Adolescent Health (Add Health). Add Health is a nationally representative, longitudinal dataset that gathers information on behaviors related to adolescent physical and mental health using data from the adolescents themselves, school administrators, parents, siblings, friends, and romantic partners (Harris et al., Add Health Research Design). The project comprises four waves of data, the first of which was collected in 1994-1995 and the most recent of which was collected in 2007-2008. The Add Health sample follows an initial group of 20,745 seventh (7^{th}) through twelfth (12^{th}) grade students into young adulthood: At the time of Wave I, participants range in age from 11 to 19, and at Wave IV they range in age from 24 to 32 (Harris et al., Add Health Research Design).

Due to the relatively detailed and complete nature of the relationship histories collected in Add Health, this dataset provides an unprecedented opportunity to look at dating and sex behaviors beginning in early to mid-adolescence. For this reason, it is the best currently available dataset with which to study romantic relationships over the life course. Table 1 presents an overview of the Add Health sampling design.

Table 1. Add Health sample characteristics^

Wave	Year(s)	Number of respondents	Ages of respondents	Response rate (%)
I	1994-1995	20,745	11-19	79.0
II	1996	14,738	12-19	*
III	2001-2002	15,197	18-26	77.4
IV	2007-2008	15,701	24-32	80.3

^Information in this table comes from "Design features of Add Health" (Harris, 2011) and the Add Health website (www.cpc.unc.edu/addhealth). *Was unable to find this information.

The Add Health sample is school-based. The 132 middle and high schools in the core sample from which Add Health respondents were selected were initially stratified into 80 clusters based on eight basic criteria: region of the country, size, type, urbanicity, percent white, percent black, grade span, and curriculum (Harris et al., Add Health Research Design). One high school was then selected from each cluster, and one middle school was selected to be paired with each high school. In addition to being representative with respect to each of the above eight indicators, each of the high schools was required to have an 11th grade and enroll at least 30 students, and each middle school was required to have a 7th grade and be a feeder school for one of the high schools in the sample. These requirements mean that students who were homeschooled or attended very small schools (Montessori schools, for instance) are not represented. However, the overall sample is representative of public, private, and parochial schools in the United States. Seventy percent (70%) of the high schools initially selected agreed to participate in the study; schools that declined to participate were replaced by a school from within the same stratum. The final sample includes fewer than 160 schools because some schools combine grades 7 through 12 (Harris et al., Add Health Research Design).

Analytic Sample

Because one of the primary aims of this analysis is to capture information about first or early dating experiences, students who were in 11th and 12th grades at the time of Wave I are excluded from the analytic sample. 'Early' relationships are defined experientially. They refer to those that constitute the individual's first dating experiences, regardless of the individual's age. Ideally, the data would capture the onset of dating activity for each respondent. However, because the age of initial involvement in romantic relationships varies so greatly, this is impossible to do even given the longitudinal nature of the dataset. Truncating the sample maximizes the number of people for whom complete dating history information is available without unduly reducing the size of the sample.

Although it is certainly the case that many 7th through 10th graders in the sample began dating before the start of data collection, excluding the oldest respondents from the sample cuts out the students for whom capturing first relationships is the most unlikely. The sample includes both men and women.

Parent questionnaire data is used in some of the analyses even though this data is not available for all respondents. Because logistic and negative binomial regression techniques use listwise deletion to deal with missing data, sample sizes are smaller for these analyses. The sample size for all analyses is approximately 8100 (see Tables).

Analysis

This study uses negative binomial, logistic, and ordinary least squares (OLS) regression. Because the analyses use data from two points in time, three sets of regressions were run. The first set employs family background and parent-child relationship items as predictors and adolescent dating and sexual involvement measures as dependent variables, while the second set uses family background and adolescent dating items as predictors of later relationship stability. The third set uses both Wave I cross-sectional outcomes and family structure and parent-child relationship predictors as independent variables in analyses predicting romantic and sexual involvement and number of relationship transitions at Wave 3. Each model was also run separately by gender, although these analyses were only preliminary: testing for significant gender interactions is an important next step. Lastly, each model was run with and without parent-child closeness measures. This was done to determine whether parent-child closeness mediates the impact of family structure on each outcome.

Negative binomial regression was chosen as the most appropriate type of analysis for certain of the outcomes due to skewness and lack of continuity. That is, number of relationships, number of sex partners at Wave III, and number of relationship transitions at Wave III are all count variables. All of the regression techniques used in the analysis utilize listwise deletion to deal with missing data. In addition, all analyses control for Add Health design effects and include the appropriate Wave I and Wave III weights.

Measures

Wave I The outcomes of interest in the Wave I cross-sectional analysis include (1) a dichotomous variable denoting whether the respondent has ever had sex and (2) a measure for the number of relationships (0 to 3) the respondent reported at Wave I.

The 'Ever had sex?' variable was created using a single item from the Wave I in-home questionnaire that asks the respondent to report whether he or she has ever had vaginal intercourse. Vaginal intercourse is defined to avoid confusion. The variable is coded so that those responding 'yes' to the survey question receive a '1' on the variable and those responding 'no' receive a '0'.

To capture the number of relationships the respondent has been in, a variable was created that summed the number of records in Section 22 ("Romantic Relationship Roster") of the Wave I in-home questionnaire. A couple of constraints were placed on the relationships respondents were allowed to report in this section, the main one being that the relationship had to have occurred in the 18 months preceding the interview (Wave I codebook).

Predictors

Parent-child closeness was assessed using Questions 9, 10, 18, and 19 from Section 16 of the Wave I in-home questionnaire, which are asked as follows:

Q9: How close do you feel to your mother (or mother figure)?
Q10: How much do you think your mother (or mother figure) cares about you?

Q18: How close do you feel to your father (or father figure)?
Q19: How much do you think your father (or father figure) cares about you?

Measures of parent-child closeness were created separately for mothers and fathers. That is, one variable was created to reflect the respondent-mother relationship and a second variable was created to reflect the respondent-father relationship. Both variables were included in each model. In addition, because one parent of each respondent was also interviewed at Wave I[2], it was possible to capture parent-child relationship quality from the parent's perspective. When included in the models, however, this measure acted no differently than did the sex-specific measures of parent-child relationship quality from the respondent's perspective, which have the advantage of imparting more information than the parent-report measure because they are specific to the parent. Therefore the measure of relationship closeness from the parent's perspective was dropped. It should be noted, however, that responses may refer to relationships with maternal and paternal figures who are not the

[2]Not all parents participated (N at Wave I = 20,745, N(parent) at Wave I = 17,670).

respondent's biological mother or father and with whom the respondent did not grow up. They may refer to step-parents, adoptive parents, or other parental figures (Wave I codebook).

Family structure was included in the models as a set of dummy variables, with two-parent household designated as the reference category. The three remaining categories were single parent, widowed parent, and separated or divorced parent. This information is taken from the Wave I parent questionnaire, in which the responding parent reports his or her marital status. Respondents living in step-parent families are therefore designated as having married parents. This definition of intact family structure is a broad one, and may be criticized for combining groups that have important factors not in common. An anticipated next step of this project is to complete these analyses using different definitions of family structure.

Control variables

Control variables for all analyses include age[3], gender, race, Hispanic ethnicity, and parent's average educational attainment as reported at Wave I.

Wave 3 The outcomes of interest in the Wave 3 cross-sectional analysis are slightly different than those in the Wave I cross-sectional analysis. There are two outcomes of interest: reported number of sex partners and number of relationship transitions into and out of cohabitations and marriages.

The 'number of sex partners' measure comes from an item in the Wave III in-home interview that asks participants how many people they have ever had sex with, regardless of whether or not they were in a relationship with the person. The second outcome variable, number of relationship transitions, was created using four pieces of information: the number of times the respondent cohabited, the number of cohabiting partners the respondent later married, the number of times the respondent married, and the number of times the respondent divorced.

In creating the relationship transitions variable at Wave III, a decision had to be made about how to handle transitions from cohabitation to marriage. Some debate exists in the literature about whether entrance into shared living arrangements should be considered distinct from decisions to marry, or whether the two decisions should be thought of sequentially when they occur in concert

[3] For Wave I analyses, the respondent's age was constructed using the date of interview and respondent's date of birth. For Wave III analyses, a constructed age variable was present in the dataset.

(Manning & Smock, 2005). For the purpose of this analysis, where the intention is to capture instability as measured by number of transitions into and out of these two types of relationships, transitions from cohabitation to marriage with the same partner were not counted as transitions if there appeared to be no break in the residential relationship. This was done to underestimate, rather than overestimate, the amount of instability in each respondent's relationship history to avoid inflating the outcome of interest. For example, an individual who cohabited with three partners, married the third partner, and reports still being married was assigned five transitions. An individual who cohabited with one partner, married that partner, and later divorced was assigned two transitions.

The predictors and controls for the Wave III analyses remain the same as for the Wave I analyses.

RESULTS

Wave I

The first set of cross-sectional analyses revealed that close relationships with both mothers and fathers decrease the likelihood of the respondent ever having had sex. In the analysis of the whole sample, the magnitude of this effect is larger for fathers than for mothers. The coefficient for the father-child relationship is -.18 compared to -.12 for the mother-child relationship. However, this result may be driven by an unobserved gender difference.

This analysis also shows that, with respect to sexual experience in adolescence, family structure makes a difference. This is as we would expect. When this model is run without the two parent-child closeness measures included, living with a single parent, widowed parent, or divorced or separated parent all predict sex. With parent-child closeness in the model, however, both living with a widowed parent and having divorced or separated parents still influence the likelihood of sexual debut, but living with a single parent does not. In addition, the coefficient for living with a divorced[4] parent decreases by more than half, from .53 to .23, and the coefficient for living with a widowed parent decreases from .74 to .44. These numbers indicate that parent-child closeness mediates the relationship between family structure and having sex in adolescence.

[4] 'Divorced' refers to both legal divorce and informal separation, since the two are included in the same category for the purpose of these analyses.

Table 2. Unstandardized regression coefficients for the influence of parent-child closeness and family structure on two aspects of adolescent romantic involvement

	Sexual initiation[1] (n=8155)		Number of relationships[2] (n=8225)	
	Model 1	Model 2	Model 1	Model 2
Single parent	.47***	.20	-.01	-.09
Widowed parent	.74***	.44**	.08	-.01
Divorced/sep. parent	.52***	.23**	.11***	.02
Mother-child closeness		-.12***		-.03**
Father-child closeness		-.18***		-.05***
Parent's education	-.22***	-.22***	.04***	.04***
Hispanic	.02	.04	-.01	-.01
Black	.88***	.89***	-.07	-.07*
Male	.08	.18**	-.08**	-.06*
Age	.64***	.62***	.14***	.13***

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

[1]denotes logit coefficient, [2]denotes negative binomial coefficient

The parent-child closeness measures are also significant predictors of the number of relationships reported at Wave I, though they predict this outcome much more weakly than they predict initiation of sex (father-child relationship -.05, mother-child relationship -.03). Family structure does not predict the number of relationships reported with parent-child closeness included in the model. In the simpler model, however, living with a divorced or separated parent is significantly and positively associated with number of romantic relationships (coef=.11, p=.000). This effect disappears when mother-child and father-child closeness are added as predictors. Here again we see evidence that parent-child closeness mediates the relationship between family structure and number of romantic relationships.

Gender-specific analyses

Re-running the above models with a sample restricted to either all males or all females revealed several differences by gender. However, I have yet to test whether these differences are statistically significant, which is the next step in my analysis. For now, the following should be interpreted as preliminary results.

Males' and females' sexual initiation is predicted by living with a single parent, widowed parent, or divorced parent until parent-child closeness is put into the model. In the male-only analysis, including

these measures reduces the coefficient for having a divorced parent by more than half (.55 to .22) and the coefficient for having a widowed parent from 1.06 to .73. The relationship between living with a single parent and having sex becomes non-significant, while both mother-child closeness and father-child closeness are significantly associated with sex. Again, however, this relationship is in the opposite direction of the relationship between family structure and sex. Each family structure category increases the likelihood of sex relative to the reference category (two-parent family), while parent-child closeness decreases the likelihood of sex.

For women, the only family structure category that remains significant in the full model is 'divorced', although the log coefficient is reduced by approximately half (from .51 to .27). As for males, mother-child and father-child closeness are both significant negative predictors of sex (log coefficients are -.14 and -.17, respectively, p=.000).

The picture is a little bit different when looking at number of romantic relationships by gender, however. Again, these results are preliminary. For males, parental divorce significantly predicts the number of relationships reported (log coefficient=.11) until parent-child closeness measures are added to the model. Adding these variables makes the relationship between having a divorced parent and number of relationships insignificant, and, as with sex, both the mother-child and father-child relationship become significant negative predictors of the number of relationships reported by the respondent. That being said, the magnitude of the effect is very small for both mothers and fathers (approximately -.03).

We see the same result patterns for women, with one exception. In the female-only full model, living with a single parent significantly predicts number of romantic relationships, even though no significant relationship exists in the family-structure-only model. In addition, this association is in the same direction as that between parent-child closeness and number of relationships. This is unexpected in light of the aforementioned results, all of which indicate that non-intact family structure has the opposite effect than does being close to one's parents. However, there are potentially several mechanisms at work in determining how family structure impacts children's outcomes. It may be that the experiences of females from single-parent families are unique in some way that makes these individuals less likely to become involved in romantic relationships than their peers.

Wave III

The Wave III analyses address two outcomes of interest: number of sex partners and number of combined cohabitation and marital transitions. A negative binomial regression revealed that number of sex partners at Wave III (when respondents range in age from 18 to 24) is predicted by both mother-child and father-child closeness but not by family structure. The closer a respondent reports being to either his or her mother or father, the fewer sex partners he or she reports at Wave III. Total number of transitions, however, is predicted by both parent-child closeness and family structure. Having divorced or separated parents is associated with a greater number of relationship transitions than is having continuously married parents. Acting in the opposite direction, mother-child and father-child closeness are both significantly ($p<.001$) associated with fewer relationship transitions.

Mediation

The above results are from the Wave III full models. In the models that were run without parent-child closeness, family structure is a significant predictor of both number of sex partners and number of cohabitation and marital transitions. With respect to the first outcome, number of sex partners, both widowed and divorced family structure are significantly and positively associated with reporting more sex partners. With respect to the second outcome, number of cohabitation and marital transitions, both living with a single parent and living with a divorced parent predict more transitions.

Table 3. Unstandardized negative bionomial regression coefficients for the influence of family structure and parent-child closeness on Wave III outcomes

	Number of sex partners (n=8052)		Number of relationship transitions (n=8189)	
	Model 1	Model 2	Model 1	Model 2
Single parent	.04	-.05	.18*	.04
Widowed parent	.15*	.03	.09	-.06
Divorced/sep. parent	.16***	.05	.25***	.11*
Mother-child closeness		-.08***		-.08***
Father-child closeness		-.06***		-.09***
Parent's education	-.02*	-.03*	-.21***	-.21***
Hispanic	-.16***	-.16***	-.31***	-.31***
Black	.22***	.23***	-.16**	-.15**
Male	.14***	.19***	-.22***	-.16***
Age	.11***	.10***	.23***	.21***

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

Gender-specific analyses

For men, living with a divorced parent is marginally significantly (coefficient=.10, p=.04) and positively associated with number of sex partners. In the full model, however, this relationship disappears and mother-son closeness becomes the only significant predictor of number of partners. For women, a stronger initial relationship exists between living with a divorced parent and the dependent variable (coefficient=.22, p=.000), but this also disappears when parent-child closeness measures are included in the model. In the female-only full model, mother-daughter and father-daughter closeness appear to exert approximately equal protective influences on the daughter's number of sex partners in young adulthood.

For the second Wave III outcome, number of cohabitation and marital transitions, men's predictors perfectly mirror those of the whole sample. The family-structure-only model indicates that living with a single or divorced parent is associated with more transitions, whereas the full model shows significant relationships between mother-son closeness, father-son closeness, and parental divorce and number of transitions. As in previous analyses, the direction of the association between parent-child closeness and the dependent variable is negative, opposite that of family structure.

The predictors of number of relationship transitions for women are a little bit different. In the small model, only parental divorce predicts number of transitions at Wave III. In the full model, however, only closeness to parents (both mother and father) are significant predictors. The closer a woman reports being to her mother and/or her father, the fewer cohabitation and marital transitions she is likely to experience in early adulthood.

Cumulative Analyses

The final set of analyses include Wave I outcomes (ever had sex, number of relationships) as predictors of Wave III outcomes (number of sex partners, number of relationship transitions). The three key predictors from the Wave I cross-sectional analyses (mother-child closeness, father-child closeness, and family structure) remain in place.

The first analysis, predicting number of sex partners, shows that having had sex at Wave I is positively and significantly associated with number of sex partners at Wave III. In other words, respondents who had had sex in high school report more sex partners seven years later. Number of

relationships at Wave I is also significantly related to number of sex partners at Wave III. Each of these predictors is also positively and significantly related to number of relationship transitions at Wave III. This holds for each of the gender-specific and mediation analyses as well.

While in the Wave I analysis parental divorce/separation is significantly associated with the likelihood of having had sex, in the Wave III analysis parental divorce is not a significant predictor of number of sex partners when parent-child closeness is included in the model. Mother-child and father-child closeness are negatively associated with both number of relationships at Wave I and total number of relationship transitions at Wave III, with very little change in the magnitude of this effect between waves.

Finally, the second analysis predicts number of serious relationship (cohabitation and marriage) transitions experienced by the respondent at the time of the Wave III interview. This analysis reveals that having had sex at Wave I and number of relationships at Wave I both predict total number of relationship transitions in early adulthood. Mother-child and father-child closeness are also significantly and negatively associated with number of cohabitation and marital transitions. This relationship can be seen as analogous to that between parent-child closeness and number of relationships in the Wave I analysis.

Table 4. Unstandardized negative binomial regression coefficients for the influence of family structure, parent-child closeness, and Wave I outcomes on number of sex partners and number of romantic relationships in early adulthood

	Number of sex partners (n=7863)		Number of relationship transitions (n=7988)	
	Model 1	Model 2	Model 1	Model 2
Single parent	.04	-.01	.15*	.05
Widowed parent	.08	.01	.02	-.08
Divorced/sep. parent	.10**	.04	.19***	.09*
Mother-child closeness		-.06***		-.06***
Father-child closeness		-.03**		-.06***
Parent's education	-.02	-.02	-.20***	-.20***
Hispanic	-.17***	-.16***	-.30***	-.30***
Black	.15***	.16***	-.25***	-.23***
Male	.16***	.19***	-.21***	-.17***
Age	.01	.00	.14***	.13***
Sexual initiation	.60***	.58***	.49***	.45***
Number of relationships	.24***	.23***	.20***	.20***

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

Running each model without the mother-child and father-child closeness variables reveals that, in every case but one, even those family structure predictors that are initially significant become non-significant when analyzed along with parent-child closeness. The exception is that, for the overall sample, having divorced parents continues to predict number of transitions in the full model.

One interesting finding is that, for the male-only sample, closeness to mothers but not closeness to fathers significantly predicts number of relationship transitions. Taken together with the above-reported finding that mother-child closeness (but not father-child closeness) predicts number of males' sex partners in Wave III, this result provides some support for the idea that while girls' relationships with their fathers are particularly salient, boys' relationships with their mothers might be similarly important.

DISCUSSION

Broadly, this research finds that both family structure and parent-child closeness are associated with individuals' romantic and sexual involvement, but that closeness to parents is more consistently and strongly linked to the outcomes of interest. In addition, the findings indicate that behaviors (sexual initiation and number of romantic relationships) in adolescence predict both number of sex partners and number of relationship transitions in early adulthood. It seems that consistency exists between these two stages of the life course, lending additional evidence in support of the life course perspective that early experiences matter not only in the short term but also in the longer term.

Many of the outcomes looked at reveal differences by gender. I will first evaluate each of the six hypotheses introduced earlier in the paper, and then discuss gender differences and other trends.

Hypothesis 1, that individuals with divorced or separated parents will be more likely to report having had sex, while those who report being close to one or both parents will be less likely to initiate sex, is supported by these findings. As is discussed above, this result is in line with both what we know from previous research and what the life course perspective and attachment theory would lead us to believe. Namely, it indicates that disruptive family structures is disadvantageous, leading to potentially risky or precocious behaviors, and that close relationships with parents are protective in that they allay teens' desire to engage in these same behaviors. *Hypothesis 2*, which posits that adolescents with married parents or who are close to their parents will report fewer sex partners than others at Wave III, is also supported. Number of sex partners is potentially important to look at from a public health standpoint,

especially as relationships become increasingly unstable over time (more forms of serious relationships other than marriage becoming common).

Hypothesis 3, which states that sexual initiation at Time 1 will be positively associated with number of sex partners seven years later, also finds support. Here again, this result is in line with the life course perspective argument that early events play a role in determining later ones. This finding is also backed up by simple logic predicated on the argument that individuals tend to be more resistant to sexual initiation than to subsequent sexual encounters; once an individual has had sex, therefore, he/she is more likely to have sex again. One's number of sex partners can only increase or stay constant over time, and given that most people experience multiple relationships in a lifetime, it is highly likely that the earlier one initiates, the more sex partners he/she will report later. In addition, this and other research suggests that like begets like; rarely if ever do we find that early experiences of a certain type are correlated with later experiences indicating opposite trends. Therefore, even in light of Giordano et al.'s caution that relationships mean different things in adolescence than in adulthood (2005), the finding that relatively early sexual initiation is significantly associated with a greater number of sex partners later in life is unsurprising.

It is worth noting that both sexual initiation and number of relationships at Wave I are significant positive predictors of number of sex partners at Wave III. This makes sense because high scores on both measures indicate higher levels of romantic involvement.

The fourth hypothesis, that parental divorce/separation will be associated with more relationship transitions at Wave III and being close to one's parents will be associated with fewer transitions, is supported as well. Both of these relationships are in the direction theory predicts.

Hypothesis 5 is similar to Hypothesis 3 in that it posits a Wave I measure will predict a somewhat analogous Wave III measure, specifically that number of relationships reported at Time 1 will be positively associated with the number of relationship transitions reported at Time 2. This was found to be the case. As for number of sex partners, the analyses revealed that *both* sex initiation and number of relationships reported at Wave I predicted *both* number of cohabitation and marital transitions at Wave III. The fact that relatively early sex predicts total number of relationship transitions in early adulthood makes sense from both a life course perspective and from the point of view of attachment theory. In line with a life course conceptualization, early experiences (e.g. sexual activity in middle or high school)

are connected to later ones (e.g. post-high school relationship transitions) for one or both of the following reasons. First, experiences that precede either sex or adult relationship transitions may impact both outcomes by the same mechanism. One of the most obvious examples of this is the influence of the parent-child relationship. If at least one strong, protective relationship is in place, almost any outcome later in life ought to reflect secure versus insecure decision-making. Another possibility is that any given decision or experience impacts later ones of a similar nature, and that having sex in adolescence has a bearing on relationship transitions in early adulthood because it reflects a nascent stage of involvement in romantic relationships, as well as a less-conservative approach to this part of life. Again, although this relationship between Wave I and Wave III outcomes was not explicitly hypothesized, it is not unexpected in light of the life course perspective.

Hypothesis 6 predicted that parent-child relationships would mediate the relationship between family structure and Wave I and Wave III outcomes. This was, in fact, one of the most consistent findings across these analyses. For 18 out of 21 comparisons, adding measures of parent-child closeness to the model either substantially decreased the magnitude of the coefficients for one or more of the three family structure categories, or rendered them non-significant. Divorced/separated status was the most resilient of the family structure categories (single, never-married parent, widowed parent, divorced/separated parent) to the inclusion of parent-child closeness. Overall, these results suggests that parent-child relationships reflect something more fundamental for the formation of later relationships and romantic decision-making than does family structure, which may be less intrinsic. This is consistent with the idea from attachment theory that closeness to one's parents underlies all of one's later relationships, and that an individual's internal working model, which determines one's ability to maintain and nourish interpersonal relationships, is decided by these early contacts rather than by observations of the parent's behavior.

Hypothesis 7, the final hypothesis predicting that Wave I outcomes would mediate the relationships between family and interpersonal predictors and Wave III outcomes, was partially supported. The results showed that, for number of sex partners, including Wave I variables decreased the magnitude of the significant coefficients for mother-child closeness and father-child closeness by approximately about one quarter for mothers and one half for fathers. However, these coefficients were quite small to begin with (-.08 and -.06, respectively). For number of relationship transitions, including

sex initiation and number of relationships decreases the coefficients for divorced/separated parental marital status, mother-child closeness, and father-child closeness, but only slightly.

Finally, the analyses looking at number of relationships in adolescence and number of sex partners in early adulthood were largely exploratory. With respect to these outcomes, the analyses show, firstly, that we can predict number of romantic relationships in adolescence, which is something that has been given relatively little attention in the literature. This supports both the life course perspective and attachment theory, since both these theories lead to the expectation that early formative experiences (specifically the formation of the parent-child bond and disruptive family transitions like divorce) shape subsequent experiences in often-systematic ways. That is, certain characteristics of these antecedents, for example the amount of warmth shown to a child by a parent, impact the later experiences of enough people in similar ways for generalizations to be drawn about the nature of their influence.

A significant relationship was found between mother-child closeness and number of sex partners for males in Wave III. This result provides an interesting contrast to the Wave I finding discussed in the previous paragraph. It seems that cross-gender relationships in the family home may be particularly important for later relationship (or sexual) behavior. This is not accounted for by the theories used to frame this paper, but a closer look at the biosocial and developmental psychology literatures may help us to understand these findings.

To summarize up to this point, these analyses suggest, consistent with existing research, that both family structure and parent-child closeness are important predictors of romantic and sexual involvement not only in adolescence but also in early adulthood. In line with a more limited body of research, it appears that parent-child closeness is more consistently associated with the outcomes of interest—having had sex as a teenager, number of relationships reported, and number of sex partners and relationship transitions in early adulthood—than is family structure. This finding is in direct contrast to the finding by Pearson, Muller, and Frisco that parent-child closeness and family structure operate independently (2006): In these analyses, parent-child relationships clearly mediate the impact of family type. This may be due in part to a different definition of family structure. However, if we take these findings at face value and try to understand what , it may be the case because one's own interpersonal relationships (of which relationships with parents can be argued to be the most important, at least early in life) occupy a more primary role in one's life than do the relationships of others. In other words, even

one's parents' marriage or other relationships don't have the same kind of impact on shaping our decisions and inclinations as do our own relationships with key figures. On the other hand, this finding is somewhat surprising given that one of these outcomes in particular, number of cohabitation and marital transitions, is a measure of instability, which has been found repeatedly to be associated with parental divorce and separation, and is less intuitively connected with parent-child closeness. One possible explanation lies in the data itself. Parent-child closeness is more likely to remain stable over time than is family structure. While it is entirely possible that a divorce may have occurred between Waves I and III, it is less likely that an individual would have become significantly less close to either parent, even as a result of divorce.

These findings are increasingly difficult to interpret without any information about the pre-divorce quality of the dissolved marriage. Amato and DeBoer tested two hypotheses about the intergenerational transmission of divorce. The first was that the children of divorced parents do not learn the same constructive interpersonal skills that the children of continuously married couples do, and that this deficit puts them at greater risk of divorce. The second hypothesis was that the end of marriage itself is what puts the children of divorced parents at a disadvantage in marriage (2001). The authors found support for the second hypothesis. If we take their conclusion as a starting point, it may be that parent-child relationships are simply more salient for certain relationship outcomes than is parental marital status, perhaps in part for the reasons mentioned at the bottom of page 31.

Although in the Wave I analysis parental divorce/separation is significantly associated with the likelihood of having had sex, in the Wave III analysis parental divorce is not a significant predictor of number of sex partners. This may be because the Wave I predictors get at a timing effect that is moot by the time respondents reach early adulthood. It is also true that, because we do not know what kinds of sexual encounters respondents are reporting on, reporting a high number of sex partners in adulthood may have little to do with whether the respondent initiated sex at a relatively young age, which could be seen as risky. It is somewhat more difficult to argue that reporting many sex partners as an adult is risky (health risks aside).

In the Wave III analyses, mother-child and father-child closeness were significantly associated with fewer transitions into and out of cohabitations and marriages. Especially because the analytic sample is still quite young at Wave III, we would expect the respondents to have undergone relatively few serious relationship transitions. Therefore, we would expect those who have experienced several

transitions by this point in their lives to be disadvantaged in terms of family background relative to their peers who have experienced fewer transitions. This appears to be the case; those individuals who report greater numbers of cohabitation and marital transitions are less likely to report being close to either parent and are more likely to report having divorced parents.

Lurking in discussions of romantic involvement and (in particular) sexual behavior among teenagers in the United States is the question of whether certain patterns of engagement in these realms of experience reflect deviance and/or disadvantage. It may be that a certain amount of bias toward negative value judgments arises from our admittedly Puritan American heritage, or that the movement toward overprotective parenting creates alarmist scenarios around any potentially risky behavior children and adolescents might engage in. However, as Sassler points out, the normative pattern is still for teenagers to date before initiating sex, and to have sex for the first time with someone they are in a relationship with (Longmore, Eng, Giordano, & Manning, 2009; Abma, Martinez, Mosher, & Dawson, 2004). For example, with respect to sexual initiation, because we do not know the respondent's age at time of first sex it is difficult to say to what extent the reported sexual behavior at Wave I might be considered deviant as opposed to normative. In addition, older adolescents report more sex partners on average than do younger adolescents. That being said, all models control for age. It is a possible drawback that we do not know whether the respondent's sexual experiences were romantic or non-romantic.

That being said, it seems clear that certain behaviors do presage later problematic outcomes. In addition, childhood factors that we know to be harmful in some way, for example acrimonious divorce and parental abuse, are unambiguously associated with early sex (e.g. Black et al., 2009; Wyatt, 1988). Therefore, while it is tempting to sidestep questions of conferred advantage versus disadvantage, doing so may cause us to ignore important implications of our findings.

Race differences, though not the focus of this paper, constitute some interesting results of the analyses. The results show largely what we would expect based on extant research. Black adolescents are significantly more likely to report having had sex at Wave I than are either white or Hispanic adolescents. Although some debate exists in the literature about whether real differences exist between white and black adolescents in terms of romantic involvement, these analyses support the finding that race does matter for these outcomes.

Similar patterns hold for race differences in adulthood. While black respondents report significantly more sex partners than white respondents, Hispanic respondents report significantly fewer. With respect to number of transitions, however, individuals of either minority status report significantly fewer transitions than do white individuals.

Broad limitations

As in all survey research, a certain amount of difficulty inheres in asking individuals to report on personal experiences. Romantic and sexual experiences in particular present some unique difficulties. For one, many non-romantic sexual experiences take place when either one or both of the involved parties is under the influence of alcohol or other substances, creating a situation that is not conducive to accurate reporting for obvious reasons. For another, romantic relationships bring with them a whole slew of emotions for the individuals involved, of which heartache and heartbreak are often the most potent. Given that the vast majority of relationships have an expiration date, these most powerful and negative of emotions are often the ones that determine an individuals' memory of the relationship (which is in some cases no memory at all). Repressing unpleasant memories is one of our most well-honed defense mechanisms.

Aside from these very general limitations, the Add Health data present a couple of additional drawbacks. Number of relationships at Wave I, which is significantly associated with number of relationship transitions experienced at Wave III, is likely skewed downward. The relationships reported on had to have occurred in the 18 months preceding the Wave I interview; this measure therefore precludes those relationships that predate this time frame, creating an age bias such that the variable is more likely to capture all relationships for the youngest people in the sample. If the dataset included complete relationship histories for each respondent, this issue could be avoided.

Lastly, because retrospective reporting is never as accurate as concurrent reporting, we would have a better idea of how family structure, parent-child closeness, and romantic and sexual experiences in adolescence unfold if data collection began when participants were younger or if family structure information were updated at Wave III. As it is, the retrospective reporting of family structure and some relationships, plus the large gap of time between Waves I and III, make it difficult to do more than draw broad conclusions. Updating family structure information would allow researchers to capture additional

instability in the natal family and therefore to better understand how the timing of instability impacts romantic and sexual behaviors in adolescence and later.

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