

Family Cohesion and Romantic and Sexual Initiation: A Three Wave Longitudinal Study

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Abstract Although the relation between family relationships and the timing of sexual debut has been the focus of many studies, research on mediating factors is scarce. This study examines whether low levels of family cohesion result in an earlier onset of romantic and sexual experiences, and whether the link between family cohesion and an early sexual debut is mediated by early romantic initiation. A longitudinal sample of 314 adolescent girls and 222 boys, aged 12–17 at Wave 1, completed questionnaires at three measurement points with three year intervals. The results showed that sexual debut followed romantic initiation for 77% of the participants. For early adolescent females (aged 12–14), high levels of family cohesion resulted in a later sexual debut and this association was fully mediated by a delay of romantic initiation. Among boys and older girls, timing of romantic initiation did not mediate the link between family cohesion and timing of sexual initiation. Early adolescent girls who have negative relationships with their parents turn to romantic relationships for intimacy and support, which subsequently provide the opportunity for an early sexual debut. Low levels of family cohesion thus primarily precipitate romantic initiation and sexual initiation appears to be secondary to this process among girls in this age group.

Keywords Adolescent sexual behavior · Family relations · Longitudinal · Parent–adolescent relations · Romantic involvement

Sexual experiences are a normative part of development, especially among older adolescents. In the Netherlands, as well as in the United States, about half of young people report experience with sexual intercourse by the age of 17 (De Graaf et al. 2005; Mosher et al. 2005). Sexual experiences entail certain risks, however, such as unintended pregnancy, sexually transmitted infections (STIs), and sexual coercion. There are indications that early sexual experiences (before age 14) are potentially more harmful than sexual experiences at older ages. An early sexual debut is more often the result of persuasion or coercion, and also more often unprotected, than among older adolescents (De Graaf et al. 2005; Hawes et al. 2010). Early adolescents generally lack the social sexual skills that are necessary to have pleasurable, safe and consensual sexual experiences (Dixon-Mueller 2008). Furthermore, having sex at an early age is associated with certain long-term negative sexual health outcomes, including risk behaviors for STIs and (for males) problems in sexual functioning (Sandfort et al. 2008). These immediate and long-term consequences highlight the importance of studying the processes behind an early sexual debut, in order to create circumstances that enable adolescents to delay their sexual debut until an age at which they are more capable of making safe decisions.

Romantic involvement is also a normative part of adolescent development. In the United States, roughly 25% of 12-year-olds and 75% of 18-year-olds report having had a romantic relationship in the past 18 months (Carver et al. 2003). These relationships provide both benefits and risks.

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On the one hand, romantic relationships are an important source of social support, and having a romantic relationship is associated with higher levels of self-esteem and social-competence (Furman et al. 2007). On the other hand, romantic breakups can evoke strong negative emotions (Collins et al. 2009; Joyner and Udry 2000). Furthermore, romantic relationships provide a context for dating violence. In 2005, 1.6% of US adolescents aged 12–17 experienced dating violence (Wolitzky-Taylor et al. 2008). Similar to early sexual initiation, an early onset of dating associates with more negative outcomes, such as delinquency and depression, than does later romantic initiation (Furman et al. 2007; Joyner and Udry 2000; Meeus et al. 2004). Thus, although romantic involvement could be considered normative, it entails more risks during early adolescence, compared to initiation at an older age.

Sexual and romantic development are closely related. Sexual experience is often preceded by dating experience, and romantic relationships constitute the primary context for sexual interactions (Furman and Shaffer 2003). About 75% of 15- to 19-year old girls in the United States report going steady with their first sexual partner (Chandra et al. 2005). Having recently been in a romantic relationship is a strong predictor of having ever engaged in sexual intercourse (Blum et al. 2000; Van Oss Marín et al. 2006). Furthermore, romantic initiation at a younger age correlates with an earlier sexual debut (Manlove et al. 2006). The link between romantic and sexual initiation thus appears to be evident.

There are large individual differences in the timing of sexual initiation. In the Netherlands, about 10% of 14-year-olds has already engaged in sexual intercourse, whereas 10% of 19-year-olds has not yet kissed (De Graaf et al. 2005). Parents seem to play a major role in these differential developmental patterns. Empirical research shows that a positive parent–child relationship is generally associated with a delay of first sexual intercourse (see De Graaf et al. (2011) for a review). Although the relation between family relationships and the timing of sexual debut has been the focus of many studies, research on mediating factors is scarce. More research on the processes behind this link is necessary.

Goals and Hypotheses of the Present Study

In the present research, we propose that romantic initiation may be one of the factors mediating the link between a negative parent–child relationship and an early sexual debut. Negative family relationships appear to be linked to early romantic initiation (Furman and Shaffer 2003). There could be biological underpinnings to this link, since negative family relationships have also been found to predict

earlier pubertal development (Ellis 2004). According to evolutionary theory, family stressors have an accelerating effect on reproductive maturation, in order to enhance reproductive fitness (Belsky 2011). Psychosocial explanations are also conceivable. Olson (2000) introduced family cohesion as a close indicator of the overall quality of family relationships. It is defined as “...the emotional bonding that family members have between one another” (Olson 2000, p. 145). When levels of family cohesion are very low (disengaged families), family members go their own way and are unable to turn to one another for support. Their energy is mainly focused outside the family. Adolescents originating from these kinds of homes possibly seek out romantic relationships earlier, because they are looking for support and closeness that is missing from the parent–child relationship (Davila et al. 2009; Steinberg et al. 2006). Ergo, both biological and psychosocial theories lead us to expect an association between negative family relations and early romantic involvement. Subsequently, these romantic relationships provide the opportunity for an earlier sexual debut. If our assumptions are correct, a negative parent–child relationship primarily precipitates romantic initiation, and secondary sexual initiation.

The purpose of the present study is twofold. First, we investigate whether family cohesion results in a later onset of romantic and sexual experiences, as is expected given the evidence presented above. Although the association between the quality of parent–child relationships and romantic partners has been studied frequently (Collins et al. 2009; Conger et al. 2000; Seiffge-Krenke et al. 2010), this does not apply to the link between family relationships and the timing of romantic initiation. Furthermore, longitudinal research on this subject has produced contradictory results. Some studies have found an association between positive parent–child relationships and later romantic initiation (Roisman et al. 2009; Seiffge-Krenke 2003), whereas other research has found no such link (Longmore et al. 2001). The dearth of longitudinal studies on this subject and their mixed results emphasize the relevance of this study.

The second purpose is to investigate whether the link between family cohesion and an early sexual debut is mediated by early romantic initiation. There are, to our knowledge, no other studies that investigated these processes using a longitudinal design. In a study of intraindividual and peer influences on sexual experience, all associations were mediated by romantic initiation (Zimmer-Gembeck et al. 2004). We expect to find the same for the link between parent–child relations and sexual behavior, because parents appear to play a major role in romantic and sexual initiation as well (Davila et al. 2009; De Graaf et al. 2011; Steinberg et al. 2006). Because positive family relations have been found to relate to both romantic and sexual initiation and because romantic

and sexual initiation have been found to be closely interrelated, we expect early romantic initiation to mediate the association between family cohesion and an early sexual debut.

We will address potential gender and age differences in our study. Males and females differ on a number of sex-related attitudes. The difference in attitudes toward casual sex is especially large (Petersen and Hyde 2010). In addition, early sexual initiation is still considered to be less permissible for females than for males (Crawford and Popp 2003). The association between romantic and sexual development could, therefore, be stronger for females than for males (Van Oss Marín et al. 2006). In addition, females generally appear to be more affected by relationships than boys (Rose and Rudolph 2006). Previous research already showed that parental influences on sexual behavior tend to be stronger for girls, compared to boys (Davis and Friel 2001; De Graaf et al. 2011; McNeely et al. 2002; Rose et al. 2005). We therefore expect to find stronger links between family cohesion on the one hand and romantic and sexual initiation on the other hand for females than for males.

We further expect decreasing links with age between family cohesion on the one hand and romantic and sexual initiation on the other hand. Parental influence appears to be stronger during early adolescence, compared to middle and late adolescence (Helsen et al. 2000). Additionally, the initiation of romantic and sexual relationships becomes more typical and less problematic as adolescents grow older (De Graaf et al. 2005; Furman et al. 2007; Hawes et al. 2010). Both the decrease of parental influences and the fact that romantic involvement and sexual experiences are increasingly common with age lead us to expect stronger links for early adolescents (age 12–14), compared to middle adolescents (age 15–17).

Method

Participants

Data for this study were collected as part of the “Utrecht Study of Adolescent Development”, a longitudinal study with 3 waves at 3-year intervals (Meeus and ‘t Hart 1993). This study was approved by the review board of the Dutch Organization for Scientific Research (NWO). In 1991, a representative Dutch sample of 3,392 adolescents aged 12–24 was drawn from an existing panel of 10,000 households. Although these 3,392 respondents gave informed consent to remain participants in the longitudinal study, 822 of them (24%) ultimately refused to take part in the second or third wave. For financial reasons, 1,302 participants were randomly selected from the 2,570 participants eligible for

the longitudinal study. Attrition analyses revealed that more females and adolescents (aged 12–20) stayed in the study than did males and emerging adults (aged 21–23) (Meeus et al. 2004). Because our purpose was to explain early romantic and sexual initiation, we selected adolescents aged 12 to 18 at Wave 1 ($n = 662$) from the 1,302 participants aged 12–24 that took part in the longitudinal study. More than one-third of these adolescents had a sibling partaking in the study, however. To avoid violation of the assumption of independent observations, we randomly selected one adolescent per family with two or more participants. This resulted in a final sample of 314 girls (58.6%) and 222 boys (41.4%). The mean age was 14.5 years at Wave 1 ($SD = 1.65$). Attrition analyses revealed that this final sample of 536 participants encompassed more females ($\chi^2(1, N = 1501) = 14.48, p < .001$) and was younger ($F(1, 1499) = 15.87, p < .001$) than the remainder of the original sample on Wave 1. Participants and non-participants did not differ in terms of family cohesion ($F(1, 1415) = 1.34, p = .25$).

Measurements

Trained assistants interviewed the adolescents in their homes, as well as one of the parents. Afterwards, respondents completed another questionnaire on their own. Our data are derived from the adolescents’ self-report questionnaires.

Family Cohesion

We used the cohesion scale from the Family Dimensions Scale to assess participants’ perceptions of family cohesion at Wave 1 (Buurmeijer and Hermans 1988). Three items were excluded from this scale on account of low item-total correlations. This measurement contains three statements about family interaction (viz., “In our family, everybody decides for themselves what’s best”, “In our family, everybody minds their own business” and “In our family, everybody goes one’s own way”). Participants indicated how much these statements applied to their family on a four-point scale (1 = *totally not true*, 4 = *totally true*). All scores were reversed, so that higher scores indicated higher levels of family cohesion. A mean scale score was calculated. Cronbach’s alpha was .72.

Timing of Romantic Initiation

At all measurements, participants reported whether they had ever had a romantic relationship (“*verkering*”, in Dutch). If they answered yes for the first time, they were asked at what age they had their first romantic relationship. For example, if a participant initiated romantic involvement between

Wave 1 and Wave 2, the age of romantic initiation reported at Wave 2 was included in the analyses. This age was reported in years. The participants' age at first measurement was subtracted from this age, to calculate how quickly after Wave 1 the participant initiated romantic relationships. For participants who initiated romantic involvement before Wave 1, it is not possible to examine whether family cohesion predicts timing of initiation or whether it is the other way around. Data for these participants were therefore left censored by giving them a score of 0 on this measure (Singer and Willett 2003). This technique enabled us to determine the direction of the link between family cohesion and timing of romantic initiation, without missing the valuable information that the romantically experienced participants at Wave 1 initiated romantic involvement earlier than inexperienced youth. For participants who had not initiated romantic relations before Wave 3, timing of initiation was unknown, but certainly after Wave 3. Data for these participants were, therefore, right censored (Singer and Willett 2003). These participants received a score of 7 on this measure.

Timing of Sexual Intercourse

At all measurements, respondents were asked whether they "had ever slept with somebody" (translated into English). In the Netherlands, this phrase is commonly understood to mean sexual intercourse. If they answered yes, they were asked at what age (in years) this happened for the first time. The participants' age at first measurement was subtracted from this age, to calculate how quickly after Wave 1 the participant initiated sexual activity. Similar to the measurement of romantic initiation, participants who had their sexual debut before Wave 1 received a score of 0 on this measure, since the purpose of our study was to examine whether family cohesion results in an earlier sexual debut, not the other way around. Also similar to the measurement of romantic initiation, participants who had not initiated sexual intercourse before Wave 3 received a score of 7 on this measure.

Statistical Analyses

All the analyses described below were conducted separately for males and females at younger and older ages, in order to address potential gender and age differences. We distinguished between early adolescents (age 12–14 at Wave 1) and middle adolescents (age 15–17 at Wave 1), because there are indications that sexual experiences during early adolescence are potentially more harmful than sexual experiences at older ages (De Graaf et al. 2005; Dixon-Mueller 2008; Hawes et al. 2010).

Early romantic initiation can not mediate the link between family cohesion and early sexual initiation, if it does not precede sexual initiation. We therefore performed preliminary analyses and calculated the sequence of romantic and sexual initiation by subtracting the age of first romantic initiation from the age of first sexual intercourse. The results were divided into three groups: (1) sexual initiation before romantic initiation, (2) romantic and sexual initiation within the same year and (3) romantic initiation before sexual initiation. Gender and age related differences were tested using Chi2 analyses.

The effects of family cohesion on romantic and sexual initiation were analyzed using Cox proportional hazards regression analyses (Singer and Willett 2003). This is a form of survival analysis in which the time to an event (i.e., romantic or sexual initiation) can be modeled with covariates or predictors. This statistical technique provides the advantage that censoring has been taken into account. Some of the data were censored. Scores of youth who initiated romantic or sexual activity prior to Wave 1 were left censored, scores of youth who did not initiate romantic or sexual activity during the study were right censored.

To test whether early romantic initiation mediates the link between family cohesion and an early sexual debut, we followed the recommendations of Baron & Kenny (1986) and conducted a series of two-step hierarchical regression analyses. According to Baron & Kenny, for romantic initiation to function as a mediator between family cohesion and sexual initiation, the following associations have to be significant: (1) between family cohesion and romantic initiation (2) between romantic initiation and sexual initiation (3) between family cohesion and sexual initiation. Furthermore, the effect of family cohesion on sexual initiation should be reduced (partial mediation) or eliminated (full mediation) after adding romantic initiation to the model. We used Sobel's test (viz. a standard z test based on the multivariate delta standard error for the estimate of the mediated effect (Sobel 1982)) to test for significance.

We used a zero-inflated Poisson model for the regression analyses. This is a hierarchical structural model that estimates two regressions. The first regression tests whether participants who had or had not initiated romantic or sexual activity at Wave 1 differed on family cohesion. For these t -tests, scores on romantic and sexual initiation prior to Wave 1 were dichotomized (yes = initiated, no = not initiated). The second regression uses family cohesion at Wave 1 to predict the score on timing of romantic and sexual initiation after Wave 1. Hence, at each step of the regression model we controlled for differences on family cohesion between adolescents with and without romantic and sexual experience prior to Wave 1. Standardized coefficients are not available for zero-inflated Poisson models. We therefore report non-standardized coefficients.

Results

Preliminary analyses showed that 30.0% of the participants aged 12–14 had initiated romantic relations before Wave 1, compared to 51.3% of participants aged 15–17 at Wave 1. Respectively 2.3 and 18.7% of early and middle adolescent participants had their sexual debut before Wave 1. Romantic initiation preceded sexual debut for 77% of the participants. About one in six respondents had their first romantic and sexual experiences at the same age. In these cases, the sequence of romantic and sexual initiation is unknown. Only 6.5% of the participants reported first experiences with sexual intercourse before romantic initiation. More males than females reported this atypical sequence of romantic and sexual initiation ($\chi^2(2, N = 464) = 6.08, p = .048$). There were no differences between early and middle adolescents ($\chi^2(2, N = 464) = .57, p = .754$).

Table 1 shows the results of Cox proportional hazards regression analyses for predicting the timing of romantic and sexual initiation from family cohesion. We expected high levels of family cohesion at Wave 1 to predict a delay of romantic or sexual initiation (i.e., a risk ratio less than 1). The results only supported this expectation for females aged 12–14. In this group, the hazards of romantic or sexual initiation are multiplied by 0.76 and 0.70, respectively, if the level of family cohesion increases by one scale point. For example, if adolescents who score 1 on the family cohesion scale have a 20% change to initiate romantic involvement at each successive year after Wave 1, adolescents who score 2 on this scale have a $0.76 \times 20\% = 15\%$ change to initiate romantic involvement at each successive year. Family cohesion at Wave 1 was not associated with onset of romantic and sexual experience for males or older females.

To illustrate the effects of family cohesion on early adolescent girls’ timing of romantic and sexual initiation, we plotted the hazard rates of romantic and sexual initiation to years since Wave 1 (Figs. 1 and 2). These plots show that the chance of being romantically or sexually experienced is lower for young girls in highly cohesive families, compared to girls in medium or low cohesive families, at each successive year after Wave 1.

Table 2 shows the results of the two-step regression analyses testing whether early romantic initiation mediates the link between family cohesion and an early sexual debut. Using a zero-inflated Poisson model, we controlled for differences on family cohesion between adolescents with and without romantic and sexual experience at Wave 1. The results of these analyses showed that early adolescent boys and girls (age 12–14) with romantic experience at Wave 1 had lower scores on family cohesion than boys and girls without romantic experience (respectively $t(29) = -.35, p < .05$ and $t(29) = -.63, p < .01$). In addition, sexually experienced early adolescent boys and girls reported lower levels of family cohesion, compared to inexperienced boys and girls (respectively $t(29) = -.67, p < .05$ and $t(29) = -.81, p < .05$).

Step 1 of our model showed that the first condition for mediation, an association between family cohesion and romantic initiation after Wave 1, was only satisfied for early adolescent girls ($B(29) = .28, p < .001$). Family cohesion was also related to sexual initiation after Wave 1 in this group ($B(29) = .13, p < .05$). The full model showed that the direct path from romantic to sexual initiation was also significant ($B(33) = .11, p < .001$). Additionally, the effect of family cohesion on sexual initiation was absent after adding the link between romantic and sexual initiation ($B(33) = .05, p = .197$). Sobel’s test (Sobel, 1982) confirmed that the difference in path weights in the two regression equations was significant ($Z = 3.02, p < .01$). This shows that the association between family cohesion and early sexual initiation was fully mediated by early romantic initiation for early adolescent girls. Among boys and older girls, family cohesion was not related to timing of sexual initiation as well as timing of romantic initiation, which makes testing for mediation redundant.

Discussion

Although numerous studies have shown that a positive parent–child relationship is generally associated with a delay of first sexual intercourse (see De Graaf et al. 2011, for a review), research on mediating factors is scarce. In the present research, we propose that romantic initiation may be

Table 1 Cox proportional hazard analysis of romantic and sexual initiation on family cohesion

	<i>n</i>	Romantic initiation		Sexual initiation	
		Hazard rate	95% CI	Hazard rate	95% CI
Boys (age 12–14)	102	.98	.67–1.43	.84	.56–1.26
Girls (age 12–14)	150	.76*	.59–.99	.70**	.52–.94
Boys (age 15–17)	104	.99	.68–1.44	.88	.59–1.30
Girls (age 15–17)	145	.93	.71–1.22	.85	.63–1.15

* $p < .05$; ** $p < .01$

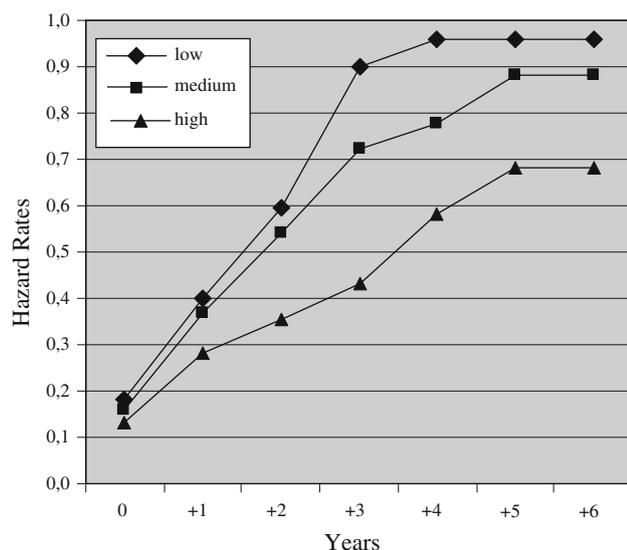


Fig. 1 Hazard rates for early adolescent girls' time to romantic initiation by parental cohesion

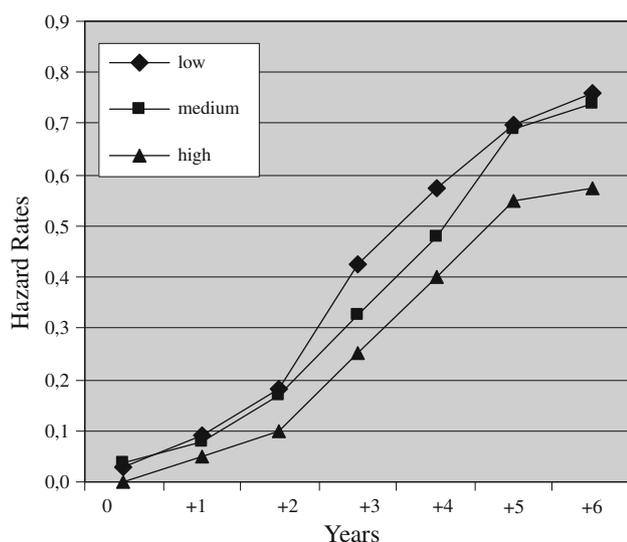


Fig. 2 Hazard rates for early adolescent girls' time to sexual initiation by parental cohesion

one of these mediating factors. Issues of sexual and romantic development are closely related, and negative family relationships appear to be linked to early romantic initiation (Furman and Shaffer 2003). This study is the first to examine this developmental pattern using a longitudinal design.

The Developmental Order of Romantic and Sexual Initiation

This study shows that, as expected, the onset of romantic involvement preceded sexual debut for most adolescents.

At least three quarters of adolescents followed this pathway and possibly even more, because 17% of the participants had their first romantic and sexual experiences at the same age, in which case the exact sequence is unknown. Although we did not examine whether first sexual intercourse actually occurred within a romantic relationship, our results appear to be in accordance with prior findings that most adolescent girls report going steady with their first sexual partner (Chandra et al. 2005), and that being in a relationship is a strong predictor of sexual intercourse (Blum et al. 2000; Van Oss Marín et al. 2006). The lifetime sequence of romantic and sexual initiation also resembles the sequence of romantic and sexual experiences within relationships. A prior study on the progression of romantic and sexual events found that, within adolescent relationships, almost no sexual interaction takes place before couples identified themselves as a couple (O'Sullivan et al. 2007). We follow the conclusions of these researchers that adolescents need to feel confident about their relationship before moving on to the intimacy of sexual interactions.

As males and females differ on their attitudes about sexual intercourse without emotional commitment (Petersen and Hyde 2010), it may be that romantic initiation is less often a prerequisite for sexual initiation for males than for females. The results of our study supported this expectation, as more males than females reported sexual initiation without any romantic experience. Also for the majority of males, however, sexual debut follows romantic initiation. Apparently, being in a relationship is also important for males, as was found in a recent survey among a representative sample of American boys. Two-thirds of these boys stated that they would rather have a girlfriend but no sex, compared to only one-third who preferred the opposite (National Campaign to Prevent Teen and Unplanned Pregnancy, 2010). Furthermore, also if males would like to have sex outside a committed relationship, they would not always be able to realize this desire.

Family Cohesion and the Timing of Romantic and Sexual Initiation

The first purpose of this study was to examine the relation between family cohesion and the timing of romantic and sexual initiation. We used family cohesion (“...the emotional bonding that family members have between one another” (Olson 2000, pp. 145)) as an indicator of the overall quality of family relationships. When levels of family cohesion are very low (disengaged families), family members mind their own business and decide for themselves what is best. We expected low levels of family cohesion to result in earlier romantic and sexual experiences. This expectation was only supported for early adolescent females. Early adolescent girls coming from

Table 2 Multivariate regressions of romantic and sexual initiation on family cohesion (B)

	Age 12–14				Age 15–17			
	Model 1		Model 2		Model 1		Model 2	
	B	SE	B	SE	B	SE	B	SE
Boys								
Family cohesion → Romantic initiation before Wave 1 ^a	-.35*	.19	-.35*	.19	.07	.18	.07	.18
Family cohesion → Sexual initiation before Wave 1 ^a	-.67*	.39	-.59	.50	.35	.27	.45	.35
Family cohesion → Romantic initiation after Wave 1	-.04	.10	-.04	.10	.11	.15	.11	.15
Family cohesion → Sexual initiation after Wave 1	.09	.08	.09	.08	.29**	.10	.20*	.11
Romantic initiation → Sexual initiation			.05**	.02			.15***	.02
Sobel's test			-.43				.73	
Girls								
Family cohesion → Romantic initiation before Wave 1 ^a	-.63**	.20	-.63**	.20	.11	.18	.11	.18
Family cohesion → Sexual initiation before Wave 1 ^a	-.81*	.41	-1.58	1.95	.11	.26	.20	.33
Family cohesion → Romantic initiation after Wave 1	.28***	.08	.28***	.08	-.05	.14	-.05	.14
Family cohesion → Sexual initiation after Wave 1	.13*	.06	.05	.06	.12	.09	.10	.09
Romantic initiation → Sexual initiation			.11***	.02			.13***	.02
Sobel's test			3.02**				-.35	
Change in AIC Model 1 versus Model 2				121.39				

^a Using a zero-inflated Poisson model, we controlled for differences on family cohesion between adolescents with and without romantic and sexual experience at Wave 1. These are *t* tests

Model 1 refers to a direct model in which romantic and sexual experience were regressed on family cohesion. Model 2 refers to a full mediation model that allowed for an additional direct path from romantic to sexual initiation

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

disengaged family homes had their first romantic and sexual experiences earlier than girls from highly cohesive families. For older adolescent males and females (age 15–17), family cohesion held no associations with the timing of romantic and sexual debut. Parental influence is probably weaker at this age, compared to early adolescence (Helsen et al. 2000). Furthermore, romantic and sexual initiation is more typical and less problematic at age 15 or older than at earlier ages (De Graaf et al. 2005; Furman et al. 2007; Hawes et al. 2010). Both the weakening of parental influences and the fact that romantic involvement and sexual experiences are normative parts of middle and late adolescent development could explain the decreasing links with age.

The stronger link between parent–child relations and age of first sexual intercourse in females, as compared to males, was also found in earlier studies (Davis and Friel, 2001; De Graaf et al. 2011; McNeely et al. 2002; Rose et al. 2005). This finding can be explained by the theory of female erotic plasticity (Baumeister 2000), which states that female sexuality is more susceptible to social influences than male sexuality, whereas male sexuality is more directly tied to biological factors. The stronger links with family cohesion for females, however, appear to extend beyond sexual behavior. The present study shows that the association between family cohesion and romantic development is also

gender-specific. Furthermore, previous research on parental support and emotional well-being, for example, has found similar gender differences (Helsen et al. 2000). Possibly, females are generally more affected by relationships than boys (Rose and Rudolph 2006).

Mediation by Romantic Initiation

The second purpose of this study was to investigate whether early romantic initiation mediates the link between a negative parent–child relationship and an early sexual debut. Because the first condition for mediation—an association between family cohesion and timing of romantic initiation—was only satisfied for early adolescent girls (age 12–14), mediation by romantic initiation was tested for this group. As expected, the association between family cohesion and early sexual initiation was fully mediated by early romantic initiation. Low levels of family cohesion resulted in earlier initiation in romantic relationships for early adolescent girls, which in turn correlated with an earlier sexual debut.

Possibly, early adolescent girls coming from poorly cohesive families turn to romantic relationships at a younger age for intimacy and support. When levels of family cohesion are very low (disengaged families), family members are unable to turn to one another for support.

Romantic relationships may compensate for the lack of closeness in these kinds of homes, by providing support and closeness that is missing from the parent–child relationship. Low levels of family cohesion possibly do not have the same effect on boys, because they are generally less affected by relationships than girls (Rose and Rudolph 2006). Other explanations for the link between positive family relations and an earlier onset of romantic involvement, however, are also conceivable. This link could also be mediated by biological processes, for example, because higher levels of family cohesion have also been found to predict later pubertal development (Belsky 2011; Ellis 2004). Regardless of the processes behind the association between family cohesion and romantic initiation in early adolescent girls, these romantic relationships provide the opportunity for an early sexual debut. Low levels of family cohesion thus primarily precipitate romantic initiation and sexual initiation appears to be secondary to this process.

Limitations and Suggestions for Future Research

For the present study, we used an existing dataset, not primarily designed to investigate romantic and sexual development. This three-wave dataset enabled us to gain more insight into the role of parenting in the timing of romantic and sexual initiation. However, the use of an existing dataset also raised a number of limitations. The data were collected from 1991 till 1997. It is possible that family cohesion and adolescent romantic and sexual relationships have changed since then. In addition, the ages of first romantic and sexual experiences were measured in years, making it impossible to determine the exact sequence of two experiences if these happened at the same age.

The measures of sexual and romantic initiation in this dataset were restricted to the timing of these events, and do not give insight in the quality of these romantic or sexual interactions. It is more than likely that the meaning of romantic relationships changes as adolescents grow older, because their romantic relationships increase in duration, quality, and levels of support (Seiffge-Krenke 2003). Although we did not measure these qualities, the longitudinal design of our study did enable us to follow the adolescents' age-specific labeling of romantic relationships. Our dataset was also restricted with regard to measures of parenting. It did not contain measures of parental control (i.e. parenting behavior that is intended to regulate the child's behavior), for example. Particularly monitoring (i.e. parental knowledge of the child's whereabouts) seems to be important for sexual development (De Graaf et al. 2010; Longmore et al. 2001).

Investigating the multifaceted nature of both parenting and romantic and sexual development provides a challenge

for future longitudinal studies. These studies should use more sensitive measurements of romantic or sexual trajectories, for example by asking respondents to put their experiences in the order in which they first occurred. These studies should also examine whether youths' first romantic and sexual relationships are mutually rewarding, and thus should include measures of duration, content and qualities of romantic relationships and should investigate skills that are necessary for guiding sexual interactions in this direction. After all, while the timing of romantic and sexual debut is important, it is also important that youths have safe, pleasurable and consensual romantic and sexual experiences when they eventually occur. Furthermore, additional studies could expand the parenting measures, for example by including parental communication about sexual and relational issues.

Despite these limitations, this research is the first to investigate whether early romantic initiation mediates the link between low levels of family cohesion and an early sexual debut in a longitudinal sample. Although the relation between parenting and sexual debut has been the focus of many studies, research on mediating factors and processes is scarce. By studying early romantic initiation as a mediator, our study provides insight in one of the potential mechanisms that underlies the well-established correlation between a negative parent–child relationship and an early sexual debut. This effect seems to be especially salient in early adolescent girls. The effects of family cohesion on these girls thus appear to be primarily associated with romantic development. Growing up in highly cohesive families prevents girls from having to look for intimacy and closeness in romantic relationships at an early age, and consequently results in a later sexual debut.

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