

# Characteristics of rumors and rumor victims in early adolescence: Rumor content and social impact

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## Abstract

Despite the prominence of rumor spreading in early adolescence, little research has examined the features of rumors during this developmental period. To address this gap in the literature, we analyzed rumor reports in a longitudinal study from fifth to seventh grades to identify subtypes of rumor content and to investigate gender and grade differences, the social impact of rumors, and victims' social status across rumor content. In seventh grade, a higher proportion of girls were victims of sexual activity rumors whereas a higher proportion of boys were victims of sexual orientation rumors. There were significantly more sexual activity rumors in seventh grade than fifth and sixth grade. In sixth and seventh grade, sexual activity rumors had higher social impact compared to all other rumors. Higher social status was found for victims of romantic rumors in fifth grade, for victims of personal/physical characteristics rumors in sixth grade, and for victims of sexual activity rumors in seventh grade. These findings provide critical insight into rumors across early adolescence and add to growing evidence that victims of aggressive behavior may have high social status. The importance of incorporating multiple methods for assessing victimization and implications for awareness of rumor spreading are discussed.

## KEYWORDS

early adolescence, qualitative reports, rumors, social aggression, social status, victims

## 1 | INTRODUCTION

Although research on the prevalence rates of social aggression is mixed with some results suggesting it peaks in later childhood/preadolescence and other research suggesting it peaks in early adolescence (see Archer & Coyne, 2005 for review; see also Karriker-Jaffe, Foshee, Ennett, & Suchindran, 2008), social aggression remains a common form of aggressive behavior experienced by early adolescents (e.g., Xie, Cairns, & Cairns, 2005; Xie, Farmer, & Cairns, 2003).

This type of aggression utilizes the networks of social relationships to harm the victim's relationships, social status, or self-esteem (Cairns, Cairns, Neckerman, Ferguson, & Gariépy, 1989; Galen & Underwood, 1997; Underwood, 2003). One form of social aggression that may serve several functions is rumor spreading, which requires the participation of the social community and may be used to damage someone's reputation (Xie, Swift, Cairns, & Cairns, 2002; Xie et al., 2005). Spreading rumors allows the perpetrator to conceal their identity, making it easier for them to avoid consequences (Xie et al., 2002, 2005). Despite rumor spreading being a covert form of aggression, victims of rumors often experience negative outcomes (e.g., Underwood, 2003). Although rumors have been noted as a prototypic form of social aggression, little research has studied rumors themselves (Paquette & Underwood, 1999). The current study fills this gap in the literature by examining qualitative reports of specific rumors spread during early adolescence with the hope to improve our understanding of their operation and social functions in peer social networks.

Not all rumors are created equal and it is important to study the content of rumors, especially in light of changes experienced by early adolescents, such as the transition to middle school, puberty, and an increase in sexual interests (Brooks-Gunn & Petersen, 1984; Connolly, Craig, Goldberg, & Pepler, 2004; Petersen, 1988). In this study, we analyzed the qualitative reports of rumors spread in the fifth-, sixth-, and seventh-grade levels in a longitudinal study and examined several meaningful categories of rumor content based on their relevance during this developmental period. Specifically, we created five distinct categories of rumors based on their content: romantic, sexual activity, sexual orientation, personal/physical characteristics, and fights/aggressive confrontations. The first three categories were created based on previous findings on early adolescents' increasing interest in romantic and sexual relationships (i.e., romantic rumors and sexual activity rumors) and the growing concern with conforming to peer expectations for gender and emerging sexual identity (i.e., sexual orientation rumors; Connolly et al., 2004; Costanzo & Shaw, 1966; Mandel & Shakeshaft, 2000; Tolman & McClelland, 2011; Tolman, Striepe, & Harmon, 2003). The other two categories were created based on peer-valued characteristics associated with popularity such as appearance (i.e., personal/physical characteristics) and aggressive behavior (i.e., fights/aggression; Adler & Adler, 1998; Xie, Li, Boucher, Hutchins, & Cairns, 2006). We investigated how rumors of different content vary across grades and gender, differ in their social impact, and may involve victims with different levels of social status. In this study, a victim was considered as the individual targeted by an aggressive act. During rumor spreading, there is, by necessity, a perpetrator who starts the rumor and a victim whom the rumor is about. Therefore, we used victim to refer to the target of a rumor. We should note that this definition of victim is based on an individual's role in an aggressive episode, which differs from a person's reputation for being a victim or being perceived as a victim that are often assessed by peer nomination measures in the literature. Our method of identifying victims from actual rumors spread in school enabled us to examine the variability among victims according to rumor content. Therefore, one important goal of this study was to investigate whether victims of different types of rumors varied in their levels of social status.

### 1.1 | Rumor content and development during early adolescence

We expected the content of rumors to reflect novel developmental issues or topics during early adolescence (i.e., ages 11–14). Early adolescents are in the midst of several developmental changes, the most significant of which is pubertal development (Brooks-Gunn & Petersen, 1984; Petersen, 1988). The intimacy and identity needs provoked by puberty may encourage involvement in romantic relationships (e.g., Connolly et al., 2004; Friedlander, Connolly, Pepler, & Craig, 2007). Numerous studies document the increasing engagement in cross-sex relationships as youth enter early adolescence (e.g., Crockett, Losoff, & Petersen, 1984; Furman & Wehner, 1997; Zimmer-Gembeck, 2002), such as rising romantic interest and relationships during late childhood and early adolescence (Collins, 2003; Connolly et al., 2004; Furman & Wehner, 1997). Given the increased prevalence of cross-sex relationships, it is reasonable to expect the content of rumors to reflect this developmental change (Crockett et al., 1984). Therefore, we expected a relatively high prevalence rate of rumors with romantic content from fifth through seventh grade [Hypothesis 1 or H1].

Pubertal changes may also trigger sexual activity as many youth experience increased sexual urges initiated by their pubertal development (Brooks-Gunn & Furstenberg, 1989). For example, results from the National Health and Nutrition Examination Surveys found that 12.5% of girls and 13.1% of boys had initiated sexual intercourse by age 14

(Liu et al., 2015). In a sample of seventh graders, 22% reported texting sexual pictures or messages (Houck et al., 2014), which was also positively correlated with engagement in sexual behaviors. Furthermore, an investigation of ninth graders found 23% of youth reported engaging in either vaginal, oral, or anal sex (Donatello et al., 2017). Taken together, these findings suggest that as youth progress through the early adolescent developmental period, interest and engagement in sexual activity increases. Therefore, we expected an increasing proportion of rumors to be about sexual activity from fifth to seventh grade [H2].

Another developmental change that occurs during early adolescence is an increase in identity development, including sexual identity which may involve several stages (Marcia, 1980). The initial stage of 'sensitization', feeling dissimilar to one's same-sex peers, occurs by age 13 (Troiden, 1979; Yarhouse, 2001). Furthermore, McDonald (1982) found that youth became aware of homosexual feelings at age 13 on average. Likewise, Floyd and Stein (2002) found that among gay, lesbian, and bisexual individuals, the median age of self-awareness of same-gender attraction was age 11. Early adolescence appears to be a key period when youth explore their sexual identity. Therefore, it is important to examine rumors regarding sexual orientation during this period, and we expect increasing rates of such rumors from fifth through seventh grade [H3].

## 1.2 | Rumor content and gender

The second major aim of this study was to investigate associations between rumor content and victim's gender. As early adolescents explore their romantic interests and sexual identity, they are also pressured to adhere to strict gender norms by the peer group (e.g., Faris & Felmlee, 2014; Landsbaum & Willis, 1971). Rumor spreading may target youth who violate gender norms, as such content may be damaging to the victim and viewed as noteworthy by peers. There appears to be a double standard in regards to female and male sexual behaviors in which girls typically receive more negative evaluations for sexual activity than boys, as it is thought that a girl being 'easy' will hinder her from finding a serious mate (Crawford & Popp, 2003). From an evolutionary perspective, successful reproduction for men means engaging in sexual activity with as many fertile partners as possible whereas successful reproduction for women means conceiving offspring and receiving resources from a quality mate (Buss & Schmitt, 1993). Therefore, promiscuity is often viewed more negatively for women than for men (Crawford & Popp, 2003; Vrangalova, Bukberg, & Rieger, 2014). Engaging in sexual activity may imply sexual promiscuity and be more damaging to a girl's reputation than to a boy's. In general, boys typically experience higher sex-positive contexts compared to girls (Crawford & Popp, 2003; Kreager & Staff, 2009; Lyons, Giordano, Manning, & Longmore, 2011), and adolescent girls are less likely than boys to endorse a favorable attitude toward sex (Cox, Shreffler, Merten, Gallus, & Dowdy, 2015). Although sexual standards for each gender have progressed over time, females who are considered sexually promiscuous are still typically less socially accepted (Kreager & Staff, 2009). Furthermore, research indicates that female adolescents express awareness of sexual double standards on a societal and school level, regardless of whether they experience support from close friends (Lyons et al., 2011). Thus, if rumors serve to help enforce gender norms (i.e., censure sexual promiscuity in girls), it is reasonable to expect that girls would be more likely to be victims of sexual activity rumors compared to boys. As a result, we expected that the rates of sexual activity rumors would be higher among girls than boys [H4].

On the other hand, boys are expected to conform to gender norms of masculinity more than girls are to femininity. Boys experience greater pressure to conform to masculine stereotypes and are recipients of 'gender policing' more often than girls (Tolman et al., 2003). Early adolescent boys who present feminine traits are judged harshly and are often targets of homophobic language (Plummer, 2001). In addition, male homosexuality is viewed more negatively and considered a larger violation of gender norms (Pascoe, 2005). Consequently, rumors about sexual orientation are more likely to be targeted at boys as a way to police gender norms for masculinity. As such, we predicted that higher rates of sexual orientation rumors would be found among boys than among girls [H5].

For romantic rumors, we did not expect any gender difference based on previous research. Reports indicate similar levels of romantic interests and participation during early adolescence, with a slight tendency for more girls to engage in romantic relationships at a younger age (Carver, Joyner, & Udry, 2003).

### 1.3 | Rumor content and social impact

Just as rumors differ in their content, they also likely differ in their social impact (i.e., influence within the peer network). Topics deemed more exciting or noteworthy to discuss, possibly due to novelty, are likely to have a greater social impact. For this study, we measured the social impact of a rumor with two indicators: one, the number of people who reported the rumor; and two, the number of people involved in spreading the rumor. For a rumor to be effective, it needs to reach an audience beyond the perpetrator. That is, if no one but the perpetrator of a rumor pays attention to it, it is reasonable to assume that the topic of the rumor is not particularly compelling. Rumors typically serve to evoke emotions, elicit reactions, and gather others' interest in order to be transmitted (DiFonzo & Bordia, 2007). As such, rumors with content that is particularly noteworthy or interesting are likely to be spread further and reported by more individuals; hence, they will have higher social impact.

Topics with high social impact are likely to vary by age; subsequently, the types of rumors being reported most often and spread further are likely to be reflective of prominent developmental issues. As youth begin to date in late childhood and the beginning of early adolescence, topics regarding romantic feelings and dating are likely to be novel, resulting in a higher social impact. On the other hand, as youth progress through early adolescence and experience sexual maturation (i.e., puberty; Brooks-Gunn & Furstenberg, 1989), rumors regarding sexual activity may become more salient. Thus, we expected that romantic rumors would have higher social impact compared to other rumors at the beginning of early adolescence [H6] whereas sexual activity rumors would have more social impact in the later years of early adolescence as those activities are initiated and gain prevalence [H7]. We also predicted sexual orientation rumors would also gain social impact later in adolescence [H8], as youth become increasingly aware of their sexual identity from early to middle adolescence and usually engage in a homosexual experience in late adolescence (McDonald, 1982).

### 1.4 | Rumor content and social status of the victim

The literature suggests that rumor content may vary depending on the social status of the victim. For instance, previous research has shown that early adolescents' involvement in romantic relationships and sexual activity is associated with higher social status (Mayeux, Sandstrom, & Cillessen, 2008; Prinstein, Meade, & Cohen, 2003). High social status is associated with several characteristics, such as attractiveness and elevated social connections (e.g., LaFontana & Cillessen, 2002; Xie et al., 2006), which may allow for greater access to cross-sex peers. Indeed, high-status (e.g., popular) youth begin to form cross-sex friendships and romantic relationships earlier than their low-status counterparts (Adler, Kless, & Adler, 1992; Simon, Aikins, & Prinstein, 2008). Thus, we expected victims of romantic rumors to have higher status compared to victims of other rumors, especially in fifth grade when romantic relationships are more novel [H9]. High-status adolescents are also found to be more likely to engage in sexual activity (de Bruyn, Cillessen, & Weisfeld, 2012; Mayeux et al., 2008). Therefore, we predicted that victims of sexual activity rumors would have higher status than victims of other rumors. This pattern may be especially salient during the later years of early adolescence (i.e., seventh grade) when interests about sexual activity are higher than earlier years [H10].

During the transition to middle school (i.e., sixth grade in this study), there is an influx of new peers that necessitates reshuffling of the peer network and the social status hierarchy (Farmer, Hamm, Leung, Lambert, & Gravelle, 2011; Pellegrini, 2002). Research shows that high-status youth attract attention (e.g., Koski, Xie, & Olson, 2015; Lansu, Cillessen, & Karremans, 2014; Lansu & Troop-Gordon, 2017), and rumors about them may serve to communicate social norms. However, following the transition to middle school when new relationships are being formed, perpetrators of rumors may not be privy to high-status individuals' private information such as romantic interests or sexual activities. Therefore, without knowledge of intimate details, perpetrators may more heavily rely on information that is readily available to them, namely, observable characteristics, such as personal or physical characteristics, that do not necessarily require close ties with high-status youth. Consequently, in the sixth grade, we predicted victims of physical or personal characteristic rumors would have higher status than victims of other rumors [H11].

Sexual orientation rumors may be used to target a peer who is violating gender norms (Horn, 2007). Research shows that individuals who violate gender norms are generally socially marginalized or vulnerable (Kimmel & Mahler, 2003; Plummer, 2001). Therefore, we expected victims of sexual orientation rumors to have lower status than victims of other rumors across all years of early adolescence [H12].

## 1.5 | Current study

In this study, we analyzed qualitative reports of rumors heard in school from a longitudinal sample followed from fifth through seventh grade, with the transition to middle school occurring in the sixth grade. One goal of the study was to identify the content of rumors during early adolescence. Another goal was to determine how rumor content may vary by gender, grade levels, social impact, and victim's social status.

## 2 | METHOD

### 2.1 | Participants

A total of 318 fifth-grade students (51% girls,  $M_{\text{age}} = 11.00$ ,  $SD = 0.44$ ) were recruited from six elementary schools in an urban school district in the Northeastern United States. Only students with signed parental consent were included in this study, yielding a participation rate of 61% (318/522). Approximately 48% of participants were African American, 33% were Caucasian, 18% were Hispanic, and 2% were Asian or other ethnicity (including multi-ethnicity). Of the participants, 61% were eligible for free or reduced-price lunch at school. Participants and nonparticipants did not differ in their ethnic background and free-lunch status,  $\chi^2s < 5.31$ ,  $p > .15$ .

Following the transition to middle school in the sixth grade, 262 participants were tracked as they transitioned into one of the three middle schools in the same school district. An additional 79 participants with signed parental consent were recruited, yielding a total sample of 341 sixth-grade students (54% girls,  $M_{\text{age}} = 12.01$ ,  $SD = .44$ ). The participation rate in sixth grade was 65% (341/524) with 49% African American participants, 33% Caucasian, 17% Hispanic, and 1% Asian or other ethnicity. Approximately 61% of the participants were eligible for free- or reduced-price at school. Participants and nonparticipants did not differ in their free-lunch status or ethnic background,  $\chi^2s < 7.85$ ,  $ps > .097$ .

In seventh grade, 309 participants from sixth grade who remained in these three middle schools were followed. An additional nine participants with signed parental consent were recruited, and three participants from fifth grade returned to the district, yielding a sample of 321 seventh-grade students (55% girls,  $M_{\text{age}} = 13.01$ ,  $SD = 0.45$ ). The participation rate in seventh grade was 59% (321/547). About one half of participants were African American, 31% were Caucasian, 16% were Hispanic, and 2% were Asian or other ethnicity. Similar to levels in the fifth and sixth grade, 59% of participants were eligible for free or reduced-price lunch. Participants and nonparticipants did not differ in their ethnic background and eligibility for free or reduced-price lunch,  $\chi^2s < 6.66$ ,  $ps > .15$ .

### 2.2 | Procedure

Late in each Spring semester, assenting participants completed questionnaire measures in a group administered survey session monitored by a lead administrator and research assistants. Before beginning, students were assured of confidentiality, given a blank paper to cover their answers, and asked not to discuss their answers with other students. Students were told they could stop participating at any time. The lead administrator read aloud all instructions and questions. Throughout the session, research assistants monitored and answered any questions. Participants were also individually interviewed by a research assistant early in each Spring semester. Before each interview, students were assured of confidentiality. Participants were asked questions related to their peer experiences, including rumors they heard at school. Follow-up questions were used when needed to probe for additional information. Interviews were audio-recorded and transcribed verbatim by trained research assistants.

## 2.3 | Measures

### 2.3.1 | Social status

A participant's social status was measured by two items: perceived popularity and coolness. A peer nomination procedure was used (see Farmer, Estell, Bishop, O'Neal, & Cairns, 2003; Farmer & Rodkin, 1996; Rodkin, Farmer, Pearl, & Van Acker, 2000). To measure perceived popularity, each participant was asked during the group survey session to nominate from free recall classmates who best fit the descriptor 'popular' ('This person is popular at school, many classmates like to play with them or do things with them') which has been shown to measure perceived popularity (Dawes & Xie, 2017; Shi & Xie, 2012). The participants were also asked to nominate peers who best fit the descriptor 'coolness' ('This person is really cool. Just about everybody in school knows this person'). The total number of nominations for each item a student received was standardized by classroom (fifth grade) or school (sixth and seventh grade). To create the social status measure, we averaged each participant's nomination for popularity and coolness. Participants were allowed to nominate any peer, meaning nominations were not constrained to consented students only, allowing for unbiased reporting on the peers that best fit each descriptor. However, nonparticipants who received nominations were not included in the analyses. In elementary school, three nominations were solicited, and in sixth and seventh grade, an unlimited number of nominations were gathered, consistent with standard peer nomination procedures utilized and recommended in past research (e.g., Cillessen & Marks, 2011; Farmer et al., 2003). Three nominations have typically been used in elementary school classrooms as children are exposed to a smaller number of peers in their class (Poulin & Dishion, 2008) whereas unlimited nominations are frequently used in middle schools when students are exposed to a greater number of peers due to changing classrooms (Cillessen, 2008; Cillessen & Marks, 2011). In all three grades, there was high reliability of the social status measure (5th  $\alpha = .91$ , 6th  $\alpha = .88$ , 7th  $\alpha = .83$ ). The cross-grade correlations of social status were also high:  $r = .58$  between fifth and sixth grade,  $r = .58$  between fifth and seventh grade, and  $r = .64$  between sixth and seventh grade.

## 2.4 | Coding of rumors

Individual interviews were conducted early each Spring semester. Participants were asked 'How often do you hear rumors or gossip about someone in your school?' Additional questions were used to probe for details about the rumor's victim and content, and people involved in spreading the rumor: 'Who was the rumor or gossip about?', 'What was said about X (the victim)?', 'How did the rumor get spread?', 'How did you hear about it?', and 'How did X (the victim) find out about the rumor?'

Each rumor report was transcribed verbatim and coded by trained research assistants. A total of 199 fifth-grade participants (65% of all interview participants) reported 175 unique rumors. Of those 175 rumors, nine rumors occurred in the fourth grade and were excluded from analyses. Twenty-one rumors had victims that were completely unknown (i.e., no name and no gender information given) and were therefore excluded from analyses. Five additional rumors reported in sixth grade that had occurred in fifth grade were included in the fifth-grade data analyses, yielding a final sample of 150 unique rumors analyzed in fifth grade reported by 174 participants ( $M = 1.16$  reports per rumor, range = 1–6 reports). In sixth grade, participants in one middle school were not asked questions related to rumors due to constraints in time allocated to student interviews by school authorities. This resulted in 238 interviews. A total of 154 sixth-grade participants (65% of all interviewed participants) reported 122 unique rumors. Five of those rumors were removed because they occurred in the fifth grade. Twenty-three rumors were also excluded because they either had completely unknown victims ( $N = 20$ ) or the content of the rumors was completely unknown ( $N = 3$ ). Nine additional rumors were added to the sixth-grade analyses which were reported in the seventh grade, yielding a final sample of 103 unique rumors analyses in sixth grade reported by 135 participants ( $M = 1.31$  reports per rumor, range = 1–6 reports). Lastly, a total of 212 seventh-grade participants (74% of all interviewed participants) reported 194 unique rumors. Forty-nine rumors were excluded from analyses because they either happened in sixth grade ( $N = 9$ ), had completely unknown victims ( $N = 36$ ), or the content of the rumor was completely unknown ( $N = 4$ ). This yielded a

final sample of 145 unique rumors analyzed in the seventh grade reported by 161 participants ( $M = 1.11$  reports per rumor, range = 1–3 reports).

All rumors were coded for the gender of the reporter, the gender of the victim, the rumor content and the number of middle persons involved in spreading the rumor. Initially, the content of rumors were coded into ten categories but given our conceptual focus, we condensed the codes into six categories: (a) romantic activity, (b) sexual activity, (c) sexual orientation, (d) personal/physical characteristics, (e) fights/aggression, and (f) other rumors (e.g., substance use, jealousy). All reports were double coded by independent coders, and discrepancies in codes were resolved by consulting a third coder with extensive coding experience. Inter rater percent agreement was high for all coding categories (85–95%). Further tests revealed high reliability for the content of the rumor with Kappa = 0.860. Additional reliability analyses conducted for victim gender (dummy coded as boy = 0, girl = 1) and number of people involved (total count of middle people) also revealed high reliability,  $r_s > .74$ ,  $p_s < .002$ .

Unique rumors were determined by grouping rumors with the same perpetrator-victim dyads that contained identical content. If there were any discrepancy, the rumors were reread and discussed during lab meetings to determine whether the reports referred to the same rumor.

## 2.5 | Analytic plan

Chi-square analyses were conducted to determine grade and gender differences in rumor content subtypes (a categorical variable). To test our hypotheses regarding differences in the social impact of rumors, we conducted one-way ANOVA on two indicators for each grade level: number of reporters and number of middle persons involved in spreading the rumor. In these ANOVAs, we compared the rumor subtype hypothesized to have a higher social impact with all other rumors.

In the last set of analyses, we performed ANCOVAs, controlling for gender and ethnicity, to test our hypotheses on the social status of victims of different rumor subtypes. We first directly tested our hypotheses with regard to a focal subtype (e.g., sexual activity) by comparing victims of the focal subtype against (a) nonvictims, and (b) all other rumor victims (excluding victims of the focal rumors). A significant overall difference was followed by post hoc comparisons adjusting for Type I error. We then explored the differences across each rumor subtypes by conducting an overall  $F$  tests; if it was significant, we conducted post hoc analyses with adjusted  $p$ -values for multiple comparisons.

## 3 | RESULTS

### 3.1 | Rumor content subtypes: Grade and gender differences

The percentages of each rumor content by grade are presented in Table 1. The prevalence rates of rumors with romantic content were high in each grade with no significant grade differences,  $\chi^2(2, N = 398) = 1.49$ ,  $p = .475$  [H1]. There were also no significant grade differences in the proportions of sexual orientation rumors  $\chi^2(2, N = 398) = 0.60$ ,  $p = .742$  [H3], or the proportions of rumors about fights/aggression,  $\chi^2(2, N = 398) = 3.99$ ,  $p = .136$ . Analyses revealed significant grade differences in the number of sexual activity rumors, with more sexual activity rumors

TABLE 1 Rumor subtypes by grade

	Romantic N / (%)	Sexual activity N / (%)	Sexual orientation N / (%)	Personal/physical characteristics N / (%)	Fight/ aggression N / (%)	Other N / (%)
Fifth grade	49 (32.7%)	14 (9.3%)	9 (6.0%)	55 (36.7%)	15 (10.0%)	8 (5.3%)
Sixth grade	30 (29.1%)	16 (15.5%)	7 (6.8%)	24 (23.3%)	19 (18.4%)	7 (6.8%)
Seventh grade	38 (26.2%)	34 (23.4%)	12 (8.3%)	27 (18.6%)	23 (15.9%)	11 (7.6%)

Note. Unique Rumors compiled from all rumor heard reports. Fifth grade = 174 students reported 150 unique rumors. Sixth grade = 135 students reported 103 unique rumors. Seventh grade = 161 students reported 145 unique rumors.

reported in the seventh grade compared to fifth and sixth grades,  $\chi^2(2, N = 398) = 10.92, p = .004$  [H2]. Analyses also revealed significant grade differences in the number of rumors about personal/physical characteristics with a higher proportion in the fifth grade compared to sixth and seventh grade,  $\chi^2(2, N = 398) = 13.08, p = .001$ . We should note that there was little overlap in the rumors reported across years. Across any two-grade levels, only one rumor was reported in both years. Excluding the overlap did not change the results on grade differences.

Gender comparisons by rumor subtypes within each grade are presented in Table 2. Comparing across all rumor subtypes in the fifth grade, there were no significant gender differences in the distribution of rumor subtypes,  $\chi^2(5, N = 150) = 8.75, p = .119$ . However, a significantly higher proportion of rumors targeting a girl was about personal/physical characteristics (44.2%) compared to those rumors targeting a boy (23.6%),  $\chi^2(1, N = 150) = 6.35, p = .012$ . We also found a trend for a higher proportion of rumors targeting boys to be about their sexual orientations (10.9%) than those rumors targeting girls (3.2%),  $\chi^2(1, N = 150) = 3.71, p = .054$ . There were no overall gender differences in rumor subtypes in sixth grade,  $\chi^2(5, N = 103) = 7.58, p = .181$ . However, gender differences were found for sexual orientation rumors: of all the rumors targeting boys, 14.3% were sexual orientation rumors, which was significantly higher than the proportion of such rumors involving girl victims (2.9%),  $\chi^2(1, N = 103) = 4.70, p = .03$  [H5]. In seventh grade, there were significant overall gender differences in rumor subtypes,  $\chi^2(5, N = 145) = 13.22, p = .02$ . A significantly higher proportion of rumors about girls were about sexual activity (30.3%) compared to the proportion of rumors targeting boys (8.7%),  $\chi^2(1, N = 145) = 8.17, p = .004$  [H4]. Additionally, a significantly higher proportion of rumors involving a boy as the victim were about sexual orientation rumors (15.2%) compared to that of girls (5.1%),  $\chi^2(1, N = 145) = 4.28, p = .039$  [H5].

### 3.2 | Rumor subtypes: Difference in social impact

First, we conducted tests between the specific rumor subtype hypothesized to have higher social impact versus all other rumor subtypes condensed into one category (Table 3). For instance, in fifth grade, we compared (a) romantic rumors versus (b) all other rumors [H6]. We expected romantic rumors in fifth grade to have more reporters and middle persons involved compared to all other rumors, but counter to our expectations, there were no significant overall differences in the number of reporters or the number of middle persons between romantic rumors and all other types,  $F_s(1, 148) < 0.697, p_s > .41$ . We also explored whether the social impact of rumors varied across all subtypes of rumors but there was no significant overall differences among rumor subtypes in the number of reporters or middle persons,  $F_s(5, 144) < 1.313, p_s > .26$ .

In sixth grade, we compared (a) sexual activity rumors versus (b) all other rumors [H7]. There were significant differences in the number of reporters between (a) sexual activity rumors and (b) all other subtypes,  $F(1, 101) = 11.284, p = .001, \eta_p^2 = .10, 95\% \text{ CI} [-1.180, -0.304]$ , with sexual activity rumors having a higher number of reporters. We found significant differences in the number of middle persons involved in spreading sexual activity rumors compared to all other rumors in sixth grade,  $F(1, 101) = 4.231, p = .042, \eta_p^2 = .04, 95\% \text{ CI} [-2.161, -0.039]$ , with a greater number of middle persons involved in sexual activity rumors. We also explored whether there were differences in social impact among all rumor subtypes and found significant differences in the number of reporters by rumor subtype,  $F(5, 97) = 3.355, p = .008, \eta_p^2 = .15$ . Results of Tukey's HSD post hoc comparisons revealed there were significantly more reporters of sexual activity rumors compared to romantic rumors,  $95\% \text{ CI} [0.11, 1.56], p = .014$ , and personal/physical characteristic rumors,  $95\% \text{ CI} [0.10, 1.61], p = .018$ . Our exploratory analyses comparing the number of middle persons for each rumor subtype did not find any significant differences by subtype,  $F(5, 97) = 1.837, p = .113$ .

In seventh grade, we also compared (a) sexual activity rumors versus (b) all other rumors [H7], and found a significantly higher number of reporters for sexual activity rumors,  $F(1, 143) = 11.449, p = .001, \eta_p^2 = .07, 95\% \text{ CI} [-0.380, -0.100]$ . Additionally, sexual activity rumors had significantly more middle persons involved compared to all other rumors combined,  $F(1, 143) = 7.258, p = .008, \eta_p^2 = .05, 95\% \text{ CI} [-1.379, -0.212]$ . We also explored whether there were social impact differences among all rumor subtypes in seventh grade and found significant differences in the number of reporters,  $F(5, 139) = 2.546, p = .031, \eta_p^2 = .08$ . Specifically, Tukey's HSD revealed significantly more reporters of sexual activity rumors compared to fights/aggression rumors,  $p = .039, 95\% \text{ CI} [0.01, 0.58]$ . No significant differences in the number of middle persons involved were found when comparing across all rumor subtypes,  $F(5, 139) = 1.856, p = .106$ . In sixth



TABLE 2 Rumor subtypes by grade and victim gender: Number of reports and proportions (within victim gender and grade)

	Romantic N / (%)		Sexual activity N / (%)		Sexual orientation N / (%)		Personal/physical characteristics N / (%)		Fights/aggression N / (%)		Other N / (%)	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
Fifth grade	29 (30.5%)	20 (36.4%)	8 (8.4%)	6 (10.9%)	3 (3.2%)	6 (10.9%)	42 (44.2%)	13 (23.6%)	8 (8.4%)	7 (12.7%)	5 (5.3%)	3 (5.5%)
Sixth grade	18 (26.5%)	12 (34.3%)	12 (17.6%)	4 (11.4%)	2 (2.9%)	5 (14.3%)	19 (27.9%)	5 (14.3%)	13 (19.1%)	6 (17.1%)	4 (5.9%)	3 (8.6%)
Seventh grade	23 (23.2%)	15 (32.6%)	30 (30.3%)	4 (8.7%)	5 (5.1%)	7 (15.2%)	20 (20.2%)	7 (15.2%)	13 (13.1%)	10 (21.7%)	8 (8.1%)	3 (6.5%)

and seventh grade, we compared (a) sexual orientation rumors and (b) all other rumors on social impact [H8] but found no significant differences in the number of reporters or the number of middle persons,  $ps > .40$ .

### 3.3 | Grade and gender differences in rumor victims

In fifth grade, 19.2% of participants (61/318) were identified as victims through the rumor reports. A total of 19.6% of participants (48/245) were identified as victims in the sixth grade. Lastly, 18.1% of participants (58/321) were identified as victims in the seventh grade. There were no grade differences in the proportions of victims, as longitudinal binomial tests showed no significant differences between (a) the number of victims changing to nonvictims and (b) the number of nonvictims changing to victims from one-grade level to another,  $Zs < 0.754$ ,  $ps > .22$ . Those tests excluded students whose victim status did not change: those who remained nonvictims and those who were victims in multiple years (8 students who were victims in fifth and sixth grade; 14 students who were victims in sixth and seventh grade; 11 students who were victims in fifth and seventh grade; and 3 students who were victims in all three grades). We should note that no ethnicity differences were found in any grade level ( $\chi^2s < 4.53$ ,  $ps > .21$ ).

As for gender differences, results show that significantly more girls were victims of rumors compared to boys in all three grades  $\chi^2$  (1,  $Ns$  ranged 245 to 341)  $> 7.44$ ,  $p < .006$ . Approximately 69% victims were girls in fifth grade (42/61), 75% of victims were girls in sixth grade (36/48), and 75.9% of victims were girls in seventh grade (44/58).

### 3.4 | Rumor subtypes: Differences in victim's social status

To test our hypotheses about differences in victims' social status by rumor subtype, we compared three groups: (a) nonvictims, (b) victims of rumors hypothesized to have higher (or lower) status, and (c) victims of all other rumors grouped together [H9]. Victims of multiple rumor content categories were excluded from analyses (fifth grade:  $n = 16$ , sixth grade:  $n = 9$ , seventh grade:  $n = 7$ ). When the overall test was significant, post hoc comparisons among the three groups were conducted with Tukey's HSD test to account for the risk of Type 1 error.

In fifth grade, we compared nonvictims, victims of romantic rumors, and victims of all other rumors (e.g., sexual activity, other) to test our hypothesis that romantic rumor victims would have higher social status [H9]. Results indicated significant overall difference in social status,  $F(2, 294) = 3.195$ ,  $p = .042$ ,  $\eta_p^2 = .02$  (see Table 4). Specifically, victims of romantic rumors had significantly higher social status than nonvictims according to the Tukey's HSD post hoc tests,  $p = .02$ , 95% CI  $[-0.995, -0.067]$ . However, contrary to our expectations, there was no significant difference between the social status of romantic rumor victims and other rumor victims combined,  $p = .23$ .

Next, in sixth grade we compared nonvictims, victims of personal/physical characteristic rumors, and victims of all other rumors to test our assumption that victims of personal/physical characteristics would have higher social status in

**TABLE 3** Social impact of rumor subtypes by grade: Means (SD)

	Romantic	Sexual activity	Sexual orientation	Personal/physical characteristics	Fights/aggression	Other
Fifth grade						
Reporters $N$	1.10 (0.37)	1.00 (0.00)	1.44 (1.01)	1.16 (0.46)	1.33 (1.29)	1.13 (0.35)
Middle persons $N$	1.37 (1.60)	1.29 (1.27)	1.78 (1.56)	1.45 (1.56)	0.93 (1.16)	0.25 (0.46)
Sixth grade						
Reporters $N$	1.10 (0.31)	1.94 (1.44)	1.57 (0.79)	1.08 (0.28)	1.16 (0.38)	1.71 (1.89)
Middle persons $N$	1.80 (1.16)	2.81 (2.07)	1.43 (0.79)	1.21 (0.98)	1.84 (1.50)	3.00 (5.80)
Seventh grade						
Reporters $N$	1.05 (0.32)	1.29 (0.58)	1.08 (0.29)	1.11 (0.32)	1.00 (0.00)	1.00 (0.00)
Middle persons $N$	1.84 (1.99)	2.59 (1.42)	1.92 (0.79)	2.00 (1.44)	1.65 (1.27)	1.27 (1.01)

*Note.* Social impact of rumors measured as the number of reporters for each rumor and the number of middle persons involved in spreading each rumor. Number of reporters was calculated by adding up all reports for a unique rumor. Number of middle persons was calculated by adding up all individuals who helped spread the rumor.

TABLE 4 Victims' social status by rumor subtypes: Means (SD)

	Romantic	Sexual activity	Sexual orientation	Personal/physical characteristics	Fights/aggression	Other	Nonvictims
Fifth grade	0.34 (1.09)	0.41 (1.29)	-0.29 (0.84)	-0.17 (0.76)	0.51 (1.21)	0.23 <sup>a</sup>	-0.05 (0.87)
Sixth grade	0.26 (0.85)	0.67 (2.08)	-0.33 (0.16)	0.93 (2.38)	-0.10 (0.38)	-0.41 (0.10)	-0.08 (0.82)
Seventh grade	0.26 (1.50)	1.20 (1.90)	0.31 (1.24)	0.28 (1.36)	0.44 (1.01)	0.11 (0.52)	-0.08 (0.80)

Note. Victims' social status calculated from the average of two peer nominations: 'popular' and 'cool'.

<sup>a</sup>Of the eight 'other' rumors reported in fifth grade, only one of those rumors was about a consented participant with available social status information.

sixth grade [H11]. Our analyses revealed a significant difference in social status,  $F(2, 231) = 5.140, p = .007, \eta_p^2 = .04$ . Victims of personal/physical characteristic rumors in had higher social status than both nonvictims,  $p = .002, 95\% \text{ CI } [0.322, 1.685]$ , and all other rumor victims combined,  $p = .007, 95\% \text{ CI } [0.234, 1.763]$ .

In seventh grade, we compared nonvictims, victims of sexual activity rumors, and victims of all other rumors to examine whether victims of sexual activity rumors had higher social status [H10]. We found significant overall differences in social status,  $F(2, 307) = 8.959, p < .001, \eta_p^2 = .06$ . Specifically, victims of sexual activity rumors had significantly higher social status than nonvictims,  $p < .001, 95\% \text{ CI } [0.507, 1.993]$  and victims of all other rumors combined,  $p = .034, 95\% \text{ CI } [0.051, 1.661]$ .

Lastly, in all grades, we compared nonvictims, victims of sexual orientation rumors, and victims of all other rumors to test whether victims of sexual orientation rumors had lower social status [H12]. Contrary to our expectations, victims of sexual orientation rumors did not have significantly lower status compared to all other victims and nonvictims in any grade,  $ps > .08$ . In all grades, we also explored whether there were social status differences between victims of each rumor subtype (excluding nonvictims) but found no significant differences between subtypes with an adjusted  $p$ -value to account for multiple comparisons.

## 4 | DISCUSSION

Our examination of rumor content and rumor victims revealed several important findings. First, the most prominent rumors at each age tend to reflect novel developmental issues faced by early adolescents at the time: romantic rumors were prominent throughout fifth to seventh grade and sexual activity rumors showed increasing prominence and reached similar levels as romantic rumors in seventh grade. Second, there were significant differences in victims' gender based on rumor content: in seventh grade, girls were more likely to be victims of sexual activity rumors whereas boys were more likely to be victims of sexual orientation rumors. Third, the social impact of rumors differed based on the content: sexual activity rumors had more social impact than all other rumor subtypes in the sixth and seventh grade. Lastly, we found that in each grade, victims of a certain rumor subtype (i.e., 5th: romantic rumors, 6th: personal/physical characteristics, 7th: sexual activity) had higher social status than nonvictims. Furthermore, victims of rumors about personal/physical characteristics in sixth grade and of sexual activity rumors in seventh grade tended to have higher social status than all other victims combined in their respective grades. This finding is consistent with a recent report on increased risk of victimization among youth high in the social hierarchy (Faris & Felmlee, 2014), and adds to growing evidence that some victimized youth may not necessarily be marginalized or socially rejected but may be those with high social prestige in the peer network (e.g., Andrews, Hanish, Updegraff, Martin, & Santos, 2016).

### 4.1 | Rumor content by grade and gender

During early adolescence, there are developmental changes that may influence both youths' behavior and interests, which may be represented in the subtypes of rumors that are prominent in each grade. For example, there is an increase in both platonic and romantic cross-gender relationships in early adolescence (Collins, 2003; Connolly et al.,

2004). Adolescents begin to engage in sexual behaviors as a result of several factors, such as sexual maturing and peer influence (Brooks-Gunn & Furstenberg, 1989; Kinsman, Romer, Furstenberg, & Schwarz, 1998). Consistent with such prominent developmental issues during early adolescent, we found the most common content of rumors was about romantic relationships [H1]. However, the proportion of romantic rumors did not significantly change from fifth through seventh grade. This suggests that cross-gender relationships, especially romantic relationships, remain a noteworthy topic throughout early adolescence. In contrast, we did find significant increases in the proportions of sexual activity rumors in the seventh grade from fifth and sixth grade [H2]. Such increases may reflect major developmental changes during this time period; namely, increased interest in sexual activity possibly spurred by pubertal maturation. Experimentation with sexual activity by older early adolescents may then become new and noteworthy topics for rumors, yielding higher incidents of sexual activity rumors. With the rising novelty of sexual activities and continuing interests in romantic relationships among early adolescents, other topics may become less appealing. Therefore, it was not surprising that rumors about personal or physical characteristics decreased in frequency from fifth grade to sixth and seventh grade. Taken together, these findings give insight into how the content of rumors may reflect changing behaviors and shifting interests during early adolescence.

Rumor spreading in peer social networks can also be used to enforce social norms (Faris & Feinlee, 2014; Landsbaum & Willis, 1971). Previous research has noted several gender differences in social norms during adolescence; females are judged more harshly for sexual behavior whereas males are subjected to higher levels of 'gender policing' (Crawford & Popp, 2003; Tolman et al., 2003). Contrary to expectations, the proportion of sexual orientation rumors did not increase from fifth to seventh grade [H3]. However, our results are consistent with gender-differentiated social norms: in the seventh grade, a higher proportion of rumors targeting girls compared to boys were about sexual activity [H4] and a higher proportion of rumors targeting boys were about sexual orientation compared to that for girls [H5]. These results suggest that although both girls and boys may be victims of rumor spreading, their risks may be manifested in gender-specific content depending on the social norm each gender violates.

#### 4.2 | Social impact by rumor subtype

As discussed, what youth find noteworthy may change between fifth and seventh grade based on salient developmental issues. As such, some rumors may be more interesting to the peer group than others, resulting in varying levels of social impact. In this study, we measured the social impact of rumors with two indicators: the number of reporters and the number of middle persons involved in spreading the rumor. Rumors with higher social impact were expected to have more peers involved in reporting and spreading the rumor. We predicted greater social impact of romantic rumors in fifth grade [H6]; however, contrary to our expectation, there were no significant differences in the social impact of different rumors in fifth grade. One explanation may be that romantic activities may not be strikingly novel at this age, possibly because interest in cross-sex interactions and notions of romantic relationships emerge in prior developmental years (Buhrmester & Furman, 1987; Thorne, 1986). However, in sixth and seventh grade, significant differences emerged in the social impact of rumors based on content. In line with our expectations, both the average number of participants reporting the rumor and the number of middle persons involved in spreading the rumor were higher for sexual activity rumors compared to all other rumors in both sixth grade and seventh grades [H7]. Furthermore, direct comparisons between all rumor subtypes revealed a higher number of reporters for sexual activity rumors than romantic and personal/physical characteristic rumors in sixth grade, and fights/aggression rumors in seventh grade. Collectively, this provides evidence for the higher social impact of sexual activity rumors in the sixth and seventh grade. As discussed earlier, there were more sexual activity rumors in the seventh grade, which may reflect the fact that youth at that age are increasingly interested in sexual activities. The results for the social impact of rumors compliment this earlier finding, suggesting that sexual activity rumors in the later years of early adolescence are considered more noteworthy than other rumors. On the other hand, and contrary to our predictions, sexual orientation rumors did not increase in social impact later in adolescence [H8]. Thus, even though research suggests that youth increasingly explore their sexual identity, including awareness of same-gender attraction, across early adolescence (Floyd & Stein, 2002; McDonald, 1982), rumors about sexual orientation do not appear to be spread more or involve more middle persons in

later grades. Perhaps these rumors are equally salient throughout early adolescence as they reflect perceived deviation from heterosexual norms in the peer group.

### 4.3 | Rumor victims' social status

It has been a widely held assumption that victims of aggression, regardless of the type of aggression, are low-status, socially marginalized youth (Crick & Bigbee, 1998; Owens, Slee, & Shute, 2000). However, as Prinstein and Cillessen (2003) point out, reputational aggression is often used to damage someone else's reputation or to protect one's own spot in the social hierarchy. Therefore, it is reasonable to expect targets of reputational aggression to have relatively high status. However, this pattern may be related to specific characteristics of the aggressive behavior (i.e., rumor content). Our results support this view; we found that in each grade, victims of certain rumor content (5th: romantic, 6th: personal/physical characteristics, 7th: sexual activity) had higher social status than nonvictims. Our findings are consistent with recent studies which found that students with relatively high social status (Faris & Felmlee, 2014) and social network prestige (Andrews et al., 2016) experienced victimization. There are several explanations for this finding. One possible explanation is that there are potential social benefits to the perpetrator of targeting a high-status peer; this may allow them to knock off a social competitor and secure their location in the hierarchy. Second, the covert features of rumor spreading (e.g., the potential anonymity of perpetrator or the chain of middle persons spreading the rumor) make this form of aggression especially effective against high-status peers. Finally, rumors about high-status individuals may be more prominent due to their high name recognition and thus are more likely to be reported by our participants in this study. In any case, our findings suggest that high-status youth are not immune to victimization and illustrates that they may have higher risk for being victims of rumors than their low-status counterparts.

Having high status is associated with a tendency to form romantic relationships earlier than low-status peers (e.g., Adler et al., 1992). Given this, we expected the victims of romantic rumors in fifth grade to have higher social status than their peers [H9]. Our results show that there were no significant differences between the social status of victims of romantic rumors and all other subtypes; however, romantic rumor victims had higher social status than nonvictims. We hypothesized that in sixth grade, after the transition to middle school, victims of rumors about personal/physical characteristics would have higher status than other victims and nonvictims [H11]. Perpetrators of rumors in sixth grade may be more likely to spread rumors about high-status' youth's observable characteristics in the absence of more intimate information (e.g., romantic interests or sexual activity). Perpetrators may not be privy to such information as the transition to middle school disrupts the peer network and requires reshuffling and resorting of the peer network and peer relationships (Farmer et al., 2011). Thus, until perpetrators can gain closer ties with high-status youth to learn intimate details, they likely use the personal/physical characteristics of high-status peers in their rumor spreading. Hence, rumors about personal/physical characteristics in sixth grade had higher social status than other rumor victims. By seventh grade, when youth are more familiar with their peers, sexual activity rumor victims had higher social status than nonvictims and all other subtypes [H10]. Not only do high-status youth engage in romantic relationships earlier, they were also found to be more likely to engage in risky behaviors, such as sexual activity (de Bruyn et al., 2012). Our results add support to the association between high status and sexual activity, particularly by seventh grade, as we found that sexual activity rumor victims had higher social status than all other rumor victims. Given that sexual activity rumor victims tended to have higher social status, we tested the possibility that their high status contributed to the greater social impact (i.e., more people knowing or being involved in the rumor) of sexual activity rumors. As it turned out, victims' social status was not associated with social impact ( $r_s < .174$ ,  $p_s > .122$ ). Therefore, we surmise that the greater social impact of sexual activity rumors is likely due to the novelty of the content rather than the victim's high social status. Although we expected victims of sexual orientation rumors to have lower status than their peers, this was not supported by the data [H12]. However, taken together, our findings suggest there is an intricate connection between rumor content and rumor victims' social status which is consistent with previous reports of individuals' high status and their behaviors (e.g., sexual activity, romantic activity; Adler et al., 1992; de Bruyn et al., 2012).

#### 4.4 | Strengths, limitations, and future directions

A unique strength of our study was the use of specific episodes of rumors spread in school to identify rumor victims. This represents a different angle to examine victimization from the method of directly soliciting nominations of victims from peers. Direct nominations may capture an individual's peer reputations of being a victim, thus identifying those youth who are frequently or chronically victimized. However, our method may be apt at identifying those individuals who experience victimization but do not have a reputation of being a victim, thus those who would not otherwise be identified by direct nominations. In our view, our method has the capacity to provide complementary information on victims of different profiles.

Despite this strength, a few study limitations warrant attention. First, though this study provided important information on the association between rumor content and victim's social status, the directionality of this relation was not clarified. Future research should attempt to address this issue. More specifically, does having high social status lead to being a victim of rumors or specific rumor subtypes, or does being a victim of rumors or specific rumor subtypes result in higher social status? Longitudinal analyses could examine whether victim's high social status causes a rumor to be spread widely or whether being a victim of certain types of rumors helps promote the victim's social status among peers.

A second limitation is the lack of attention paid to perpetrators of rumors. It is likely that perpetrator status, in addition to victim status, will influence the social impact of the rumor. Furthermore, the relative social positions of perpetrators and their rumor victims (e.g., in-group or out-group, popularity differences) may be related to rumor content. Research suggests that youth may perpetrate rumors as a means to attain or maintain popularity status (e.g., Dawes & Xie, 2014), but thus far, and to our knowledge, no work has examined whether youth with higher status tend to spread a specific type of rumor (e.g., sexual activity) more so than lower status youth. Future research should examine links between the status of rumor perpetrators and their victims. A related line of inquiry could investigate the middle persons' characteristics and their relationships with the perpetrators and rumor victims. Such analyses will have the potential to map out the social pathways of rumors and to identify the critical social elements for rumor spreading in early adolescents' peer networks.

A third limitation was the change in available data on victim status based on the qualitative reports in sixth grade. Due to time constraints imposed by one school in our sample, we were unable to ask questions about conflicts, including rumors heard at school, during the student interview. Thus, all participants in this school were assigned missing values for being a rumor victim in sixth grade. Our analyses indicated that those participants had higher proportions of White ethnicity and lower proportions of free or reduced-price lunch ( $\chi^2_s > 57.767$ ,  $ps < .001$ ). Despite these differences, we are confident that the reported results are not biased in any significant way for two reasons. First, demographic differences in whether or not youth were interviewed about rumors in school does not necessarily imply differences in the content of rumors reported. Looking at the pattern of rumor content across all three-grade levels, the numbers and subtypes of rumors reported in sixth grade follow the pattern one would expect from fifth to seventh grade (see Table 1). Second, we tested to see if results on rumor victims' status changed in fifth and seventh grade after excluding those participants for whom rumor questions were not asked in sixth grade (i.e., missing data in sixth grade). We found that the results were largely unchanged when we excluded the missing sixth grade participants in fifth and seventh grade: victims of romantic rumors in fifth grade still tended to have higher status than nonvictims ( $p = .090$ ). Additionally, in seventh grade, victims of sexual activity rumors still had higher status than nonvictims ( $p = .025$ ). Despite the fact that the results do not seem biased by the unavailability of rumor data in sixth grade for participants in one middle school, we still wanted to note that the finding in sixth grade should be interpreted with care and future studies need to further examine developmental changes during the transition to middle school.

It should be noted that although our participation rates were consistent with recommendations (e.g., Marks, Babcock, Cillessen, & Crick, 2013), our analyses were limited to consenting students. Non-consenting students did not limit the representativeness of the rumor contents or rumor characteristics reported in this study; however, our analyses on individual rumor victims would be more representative with higher participation rates. A final methodological consideration is that our method of peer nominations changed from limited nominations in fifth grade to unlimited

nominations in sixth and seventh grade. Although both methods are standard practice for collecting peer nominations in elementary and middle school settings (e.g., Cillessen & Marks, 2011), the potential impact of such discrepancy on the peer nomination variables should not be ignored. We examined the cross-grade correlations on the social status variables and found reasonable consistency and stability ( $r$ s ranged from .58 to .64), suggesting that the changes in the number of nominations may have minimum impact on the measures.

Future research should expand this study's current focus on the early adolescent developmental period into middle and late adolescence as research suggests that rumor spreading continues into subsequent developmental stages. Expanding to older adolescents will help determine whether (and how) salient rumor subtypes change over time, as well as changing dynamics in the social impact of different types of rumors and their victim's social status. Another direction for future research is using qualitative reports of rumors to examine the characteristics of perpetrators of rumor spreading. Research suggests this form of social aggression can be used by social competitors (e.g., Xie et al., 2002, 2005) and it would be useful to examine associations between perpetrators and victims to inform our understanding of how likely it is that a student will spread a rumor about different peers, depending on both their social status or other characteristics (e.g., social preference, gender). Future research should also examine the links between social impact of rumors and the social and psychological consequences for the victims. Although we found that victims of certain rumors have elevated status, more research is needed to elucidate longitudinal links between rumors and victims' social standing, as well as their emotional well-being.

## 4.5 | Summary and implications

In seeking to illuminate developmental trends in students' use of social aggression, this study used qualitative reports of rumors heard at school to provide in-depth information of prominent topics of rumors, gender differences in victimization rates, and differences in victim's social status. We found that prominent rumors at each grade reflect novel developmental concerns such as romantic relationships and sexual activity, that victim gender varied depending on the rumor content, and that rumors varied in their social impact. Additionally, victims of certain rumor subtypes (e.g., sexual activity) had higher status than nonvictims and victims of other rumors. This compelling evidence adds to the growing recognition in the literature that youth high in the social status hierarchy also experience victimization (e.g., Andrews et al., 2016; Faris & Felmlee, 2014). Yet, many traditional interventions for victims may only focus on socially marginalized youth, excluding high-status youth who may also be at risk for negative emotional and psychological consequences associated with victimization (e.g., McDougall & Vaillancourt, 2015). Consequently, researchers and key personnel working with youth need to be aware of the unique risks high-status youth may face for victimization from socially aggressive behavior.

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## REFERENCES

- Adler, P. A., & Adler, P. (1998). *Peer power: Preadolescent culture and identity*. New Brunswick, NJ: Rutgers University Press.
- Adler, P. A., Kless, S. J., & Adler, P. (1992). Socialization to gender roles: Popularity among elementary school boys and girls. *Sociology of Education*, 65(3), 169–187. <https://doi.org/10.2307/2112807>

- Andrews, N. C. Z., Hanish, L. D., Updegraff, K. A., Martin, C. L., & Santos, C. E. (2016). Targeted victimization: Exploring linear and curvilinear associations between social network prestige and victimization. *Journal of Youth and Adolescence*, 45(9), 1772–1785. <https://doi.org/10.1007/s10964-016-0450-1>
- Archer, J., & Coyne, S. M. (2005). An integrated review of indirect, relational, and social aggression. *Personality and Social Psychology Review*, 9(3), 212–230. [https://doi.org/10.1207/s15327957pspr0903\\_2](https://doi.org/10.1207/s15327957pspr0903_2)
- Brooks-Gunn, J., & Furstenberg, F. F. (1989). Adolescent sexual behavior. *American Psychologist*, 44(2), 249–257. <https://doi.org/10.1037/0003-066X.44.2.249>
- Brooks-Gunn, J., & Petersen, A. C. (1984). Problems in studying and defining pubertal events. *Journal of Youth and Adolescence*, 13(3), 181–196. <https://doi.org/10.1007/BF02089058>
- Buhrmester, D., & Furman, W. (1987). The development of companionship and intimacy. *Child Development*, 58(4), 1101–1113. <https://doi.org/10.2307/1130550>
- Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review*, 100(2), 204–232. <https://doi.org/10.1037/0033-295X.100.2.204>
- Cairns, R. B., Cairns, B. D., Neckerman, H. J., Ferguson, L. L., & Gariépy, J.-L. (1989). Growth and aggression: I. Childhood to early adolescence. *Developmental Psychology*, 25, 320–330.
- Carver, K., Joyner, K., & Udry, J. R. (2003). National estimates of adolescent romantic relationships. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior: Theory, research, and practical implications* (pp. 23–56). Mahwah, NJ: Lawrence Erlbaum Associates.
- Cillessen, A. H. N. (2008). Sociometric methods. In K. H. Rubin, W. M. Bukowski, & B. Laursen (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 82–99). New York, NY: Guilford.
- Cillessen, A. H. N., & Marks, P. E. L. (2011). Conceptualizing and measuring popularity. In Cillessen, A., Schwartz, D., & Mayeux, L. (Eds.), *Popularity in the peer system* (pp. 25–56). New York, NY: Guilford Press.
- Collins, W. A. (2003). More than a myth: The developmental significance of romantic relationships during adolescence. *Journal of Research on Adolescence*, 13(1), 1–24. <https://doi.org/10.1111/1532-7795.1301001>
- Connolly, J. A., Craig, W., Goldberg, A., & Pepler, D. (2004). Mixed-gender groups, dating, and romantic relationships in early adolescence. *Journal of Research on Adolescence*, 14(2), 185–207. <https://doi.org/10.1111/j.1532-7795.2004.01402003.x>
- Costanzo, P. R., & Shaw, M. E. (1966). Conformity as a function of age level. *Child Development*, 37(4), 967–975. <https://doi.org/10.2307/1126618>
- Cox, R. B., Shreffler, K. M., Merten, M. J., Gallus, K. L. S., & Dowdy, J. L. (2015). Parenting, peers, and perceived norms: What predicts attitudes toward sex among early adolescents? *Journal of Early Adolescence*, 35, 30–53.
- Crawford, M., & Popp, D. (2003). Sexual double standards: A review and methodological critique of two decades of research. *The Journal of Sex Research*, 40(1), 13–26. <https://doi.org/10.1080/00224490309552163>
- Crick, N., & Bigbee, M. (1998). Relational and overt forms of peer victimization: A multi-informant approach. *Journal of Consulting and Clinical Psychology*, 66(2), 337–347. <https://doi.org/10.1037/0022-006X.66.2.337>
- Crockett, L., Losoff, M., & Petersen, A. C. (1984). Perceptions of the peer group and friendship in early adolescence. *Journal of Early Adolescence*, 4(2), 155–181. <https://doi.org/10.1177/0272431684042004>
- Dawes, M., & Xie, H. (2014). The role of popularity goal in early adolescents' behaviors and popularity status. *Developmental Psychology*, 50(2), 489–497. <https://doi.org/10.1037/a0032999>
- Dawes, M., & Xie, H. (2017). The trajectory of popularity goal during the transition to middle school. *Journal of Early Adolescence*, 37(6), 852–883. <https://doi.org/10.1177/0272431615626301>
- de Bruyn, E. H., Cillessen, A. H. N., & Weisfeld, G. E. (2012). Dominance-popularity status, behavior, and the emergence of sexual activity in young adolescents. *Evolutionary Psychology*, 10(2), 296–319. <https://doi.org/10.1177/209>
- DiFonzo, N., & Bordia, P. (2007). Rumor, gossip and urban legends. *Diogenes*, 54, 19–35.
- Donatello, R. A., De Rosa, C. J., Moulton, B. D., Chung, E. Q., Viola, R., Rohrbach, L. A., & Affi, A. A. (2017). Patterns of sexual experience among urban Latino and African American ninth grade students. *The Journal of Sex Research*, 54, 619–630.
- Faris, R., & Felmlee, D. (2014). Casualties of social combat: School networks of peer victimization and their consequences. *American Sociological Review*, 79(2), 228–257. <https://doi.org/10.1177/0003122414524573>
- Farmer, T. W., Estell, D. B., Bishop, J. L., O'Neal, K. K., & Cairns, B. D. (2003). Rejected bullies or popular leaders? The social relations of aggressive subtypes of rural African American early adolescents. *Developmental Psychology*, 39(6), 992–1004. <https://doi.org/10.1037/0012-1649.39.6.992>
- Farmer, T. W., Hamm, J. V., Leung, M. C., Lambert, K., & Gravelle, M. (2011). Early adolescent peer ecologies in rural communities: Bullying in schools that do and do not have a transition during the middle grades. *Journal of Youth and Adolescence*, 40, 1106–1117.



- Farmer, T. W., & Rodkin, P. C. (1996). Antisocial and prosocial correlates of classroom social positions: The social network centrality perspective. *Social Development, 5*(2), 174–188. <https://doi.org/10.1111/j.1467-9507.1996.tb00079.x>
- Floyd, F. J., & Stein, T. S. (2002). Sexual orientation identify formation among gay, lesbian, and bisexual youths: Multiple patterns of milestone experiences. *Journal of Research on Adolescence, 12*, 167–191.
- Friedlander, L. J., Connolly, J. A., Pepler, D. J., & Craig, W. M. (2007). Biological, familial, and peer influences on dating in early adolescence. *Archives of Sexual Behaviors, 36*(6), 821–830. <https://doi.org/10.1007/s10508-006-9130-7>
- Furman, W., & Wehner, E. A. (1997). Adolescent romantic relationships: A developmental perspective. In S. Shulman, & W. A. Collins (Eds.), *New directions for child development: Adolescent romantic relationships* (pp. 21–36). San Francisco, CA: Jossey-Bass.
- Galen, B. R., & Underwood, M. K. (1997). A developmental investigation of social aggression among children. *Developmental Psychology, 33*, 589–600.
- Horn, S. S. (2007). Adolescents' acceptance of same-sex peers based on sexual orientation and gender expression. *Journal of Youth and Adolescence, 36*(3), 363–371. <https://doi.org/10.1007/s10964-006-9111-0>
- Houck, C. D., Barker, D., Rizzo, C., Hancock, E., Norton, A., & Brown, L. K. (2014). Sexting and sexual behavior in at-risk adolescents. *Pediatrics, 133*(2), e276–e282.
- Karriker-Jaffe, K. J., Foshee, V. A., Ennett, S. T., & Suchindran, C. (2008). The development of aggression during adolescence: Sex differences in trajectories of physical and social aggression among youth in rural areas. *Journal of Abnormal Child Psychology, 36*(8), 1227–1236. <https://doi.org/10.1007/s10802-008-9245-5>
- Kimmel, M. S., & Mahler, M. (2003). Adolescent masculinity, homophobia, and violence. *American Behavioral Scientist, 46*, 1439–1458.
- Kinsman, S. B., Romer, D., Furstenberg, F. F., & Schwarz, D. F. (1998). Early sexual initiation: The role of peer norms. *Pediatrics, 102*, 1185–1192.
- Koski, J. E., Xie, H., & Olson, I. R. (2015). Understanding social hierarchies: The neural and psychological foundations of status perception. *Social Neuroscience, 10*, 527–550.
- Kreager, D. A., & Staff, J. (2009). The sexual double standard and adolescent peer acceptance. *Social Psychology Quarterly, 72*, 143–164.
- LaFontana, K. M., & Cillessen, A. H. N. (2002). Children's perceptions of popular and unpopular peers: A multi-method assessment. *Developmental Psychology, 38*, 635–647. <https://doi.org/10.1037//0012-1649.38.5.635>
- Landsbaum, J., & Willis, R. (1971). Conformity in early and late adolescence. *Developmental Psychology, 4*(3), 334–337. <https://doi.org/10.1037/h0030987>
- Lansu, T. A., Cillessen, A. H., & Karremans, J. C. (2014). Adolescents' selective visual attention for high-status peers: The role of perceiver status and gender. *Child Development, 85*, 421–428.
- Lansu, T. A., & Troop-Gordon, W. (2017). Affective associations with negativity: Why popular peers attract youths' visual attention. *Journal of Experimental Child Psychology, 162*, 282–291.
- Liu, G., Hariri, S., Bradley, H., Gottlieb, S. L., Leichliter, J. S., & Markowitz, L. E. (2015). Trends and patterns of sexual behaviors among adolescents and adults aged 14 to 59 years, United States. *Sexually Transmitted Diseases, 42*, 20–26.
- Lyons, H., Giordano, P. C., Manning, W. D., & Longmore, M. A. (2011). Identity, peer relationships, and adolescent girls' sexual behavior: An exploration of the contemporary double standard. *Journal of Sex Research, 48*, 437–449.
- Mandel, L., & Shakeshaft, C. (2000). Heterosexism in middle schools. In N. Lesko (Ed.), *Masculinities at school* (pp. 75–103). Thousand Oaks, CA: Sage.
- Marcia, J. E. (1980). Identity in adolescence. In J. Adelson (Ed.), *Handbook of Adolescent Psychology* (pp. 159–187). New York, NY: Wiley.
- Marks, P., Babcock, B., Cillessen, A. H. N., & Crick, N. (2013). The effects of participation rate on the internal reliability of peer nomination measures. *Social Development, 22*, 609–622. <https://doi.org/10.1111/j.1467-9507.2012.00661.x>
- Mayeux, L., Sandstrom, M. J., & Cillessen, A. H. N. (2008). Is being popular a risky proposition? *Journal of Research on Adolescence, 18*(1), 49–74. <https://doi.org/10.1111/j.1532-7795.2008.00550.x>
- McDonald, G. J. (1982). Individual differences in the coming out process for gay men: Implications for theoretical models. *Journal of Homosexuality, 8*(1), 47–60. [https://doi.org/10.1300/J082v08n01\\_05](https://doi.org/10.1300/J082v08n01_05)
- McDougall, P., & Vaillancourt, T. (2015). Long-term adult outcomes of peer victimization in childhood and adolescence: Pathways to adjustment and maladjustment. *American Psychologist, 70*, 300–315. <https://doi.org/10.1037/a0039174>
- Owens, L., Slee, P., Shute, R. (2000). 'It hurts a hell of a lot...' the effects of indirect aggression on teenage girls. *School Psychology International, 21*(4), 359–376. <https://doi.org/10.1177/0143034300214002>
- Paquette, J., & Underwood, M. (1999). Gender differences in young adolescents' experiences of peer victimization: Social and physical aggression. *Merrill-Palmer Quarterly, 45*, 242–266.

- Pascoe, C. J. (2005). 'Dude, you're a fag': Adolescent masculinity and the fag discourse. *Sexualities*, 8(3), 329–346. <https://doi.org/10.1177/1363460705053337>
- Pellegrini, A. D. (2002). Bullying, victimization, and sexual harassment during the transition to middle school. *Educational Psychologist*, 37, 151–163.
- Petersen, A. C. (1988). Adolescent development. *Annual Review of Psychology*, 39, 583–607. <https://doi.org/10.1146/annurev.ps.39.020188.003055>
- Plummer, D. C. (2001). The quest for modern manhood: Masculine stereotypes, peer culture and the social significance of homophobia. *Journal of Adolescence*, 24(1), 15–23. <https://doi.org/10.1006/jado.2000.0370>
- Poulin, F., & Dishion, T. J. (2008). Methodological issues in the use of peer sociometric nominations with middle school youth. *Social Development*, 17, 908–921. <https://doi.org/10.1111/j.1467-9507.2008.00473.x>
- Prinstein, M. J., & Cillessen, A. H. N. (2003). Forms and functions of adolescent peer aggression associated with high levels of peer status. *Merrill-Palmer Quarterly*, 49, 310–342.
- Prinstein, M. J., Meade, C. S., & Cohen, G. L. (2003). Adolescent oral sex, peer popularity, and perceptions of best friends' sexual behavior. *Journal of Pediatric Psychology*, 28(4), 243–249. <https://doi.org/10.1093/jpepsy/jsg012>
- Rodkin, P., Farmer, T., Pearl, R., & Van Acker, R. (2000). Heterogeneity of popular boys: Antisocial and prosocial configurations. *Developmental Psychology*, 36(1), 14–24. <https://doi.org/10.1037/0012-1649.36.1.14>
- Shi, B., & Xie, H. (2012). Socialization of physical and social aggression in early adolescents' peer groups: High-status peers, individual status and gender. *Social Development*, 21(1), 170–193. <https://doi.org/10.1111/j.1467-9507.2011.00621.x>
- Simon, V. A., Aikins, J. W., & Prinstein, M. J. (2008). Romantic partner selection and socialization during early adolescence. *Child Development*, 79(6), 1676–1692. <https://doi.org/10.1111/j.1467-8624.2008.01218.x>
- Thorne, B. (1986). Girls and boys together ... but mostly apart: Gender arrangements in elementary schools. In W. W. Hartup & Z. Rubin (Eds.), *Relationships and development* (pp. 167–184). Hillsdale, NJ: Erlbaum.
- Tolman, D. L., & McClelland, S. I. (2011). Normative sexuality development in adolescence: A decade in review, 2000–2009. *Journal of Research on Adolescence*, 21(1), 242–255. <https://doi.org/10.1111/j.1532-7795.2010.00726.x>
- Tolman, D. L., Striemp, M. I., & Harmon, T. (2003). Gender matters: Constructing a model of adolescent sexual health. *Journal of Sex Research*, 40(1), 4–12. <https://doi.org/10.1080/00224490309552162>
- Troiden, R. R. (1979). Becoming homosexual: A model of gay identity acquisition. *Psychiatry*, 42(4), 362–373. <https://doi.org/10.1521/00332747.1979.11024039>
- Underwood, M. K. (2003). *Social aggression among girls*. New York, NY: Guilford Press.
- Vrangaalova, Z., Bukberg, R. E., & Rieger, G. (2014). Birds of a feather? Not when it comes to sexual permissiveness. *Journal of Social and Personal Relationships*, 31(1), 93–113. <https://doi.org/10.1177/0265407513487638>
- Xie, H., Cairns, B. D., & Cairns, R. B. (2005). The development of aggressive behaviors among girls: Measurement issues, social functions, and differential trajectories. In D. Pepler, K. Madsen, C. Webster, & K. Levene (Eds.), *Development and treatment of girlhood aggression* (pp. 103–134). Mahwah, NJ: Lawrence Erlbaum Associates.
- Xie, H., Farmer, T. W., & Cairns, B. D. (2003). Different forms of aggression in peer conflicts among inner-city African-American children: Gender differences, profiles of strategies, and school social networks. *Journal of School Psychology*, 41, 355–375. [https://doi.org/10.1016/S0022-4405\(03\)00086-4](https://doi.org/10.1016/S0022-4405(03)00086-4)
- Xie, H., Li, Y., Boucher, S. M., Hutchins, B. C., & Cairns, B. D. (2006). What makes a girl (or a boy) popular (or unpopular)? African American children's perceptions and developmental differences. *Developmental Psychology*, 42(4), 599–612. <https://doi.org/10.1037/0012-1649.42.4.599>
- Xie, H., Swift, D. J., Cairns, B. D., & Cairns, R. B. (2002). Aggressive behaviors in social interaction and developmental adaptation: A narrative analysis of interpersonal conflicts during early adolescence. *Social Development*, 11(2), 205–224. <https://doi.org/10.1111/1467-9507.00195>
- Yarhouse, M. A. (2001). Sexual identity development: The influence of valiative frameworks on identity synthesis. *Psychotherapy*, 38(3), 331–341. <https://doi.org/10.1037/0033-3204.38.3.331>
- Zimmer-Gembeck, M. J. (2002). The development of romantic relationships and adaptations in the system of peer relationships. *Journal of Adolescent Health*, 31(6 Suppl), 216–225. [https://doi.org/10.1016/S1054-139X\(02\)00504-9](https://doi.org/10.1016/S1054-139X(02)00504-9)

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