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Published in:
Scandinavian Journal of Child and Adolescent Psychiatry and Psychology

DOI:
10.21307/sjcapp-2018-004

Publication date:
2018

Document version
Publisher's PDF, also known as Version of record

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Citation for published version (APA):
Prevalence and characteristics of three subtypes of dating violence among Danish seventh-grade students

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Abstract

Background: A high prevalence of adolescent dating violence (ADV) has been documented in recent years. However, the majority of ADV studies have been conducted in North America and moreover, ADV studies have primarily focused on high school or college populations.

Objective: To investigate victimization and perpetration of ADV and related gender differences in a sample of Danish seventh-grade students.

Method: In total, 2934 seventh-grade students (M = 3.5, SD = 0.5) filled out questionnaires at school.

Results: The prevalence of victimization of emotional, physical and sexual ADV was 32.2%, 11.2% and 10.6%, and the prevalence of perpetration of emotional, physical and sexual ADV was 20.6%, 6% and 2.1%. One out of five students reported both victimization and perpetration of one of the three ADV types and 14.3% and 6% reported multiple forms of ADV victimization and perpetration respectively. Moreover, gender differences in the prevalence of ADV and the co-occurrence of ADV victimization and perpetration were identified.

Conclusion: The present study highlights that a large proportion of Danish seventh-grade students are experiencing ADV, and that ADV preventive programs are relevant already in early adolescence. Based on the high proportion of students reporting co-occurrence of victimization and perpetration experiences, comprehensive preventive programs that focus on both victimization and perpetration experiences and the transmission of violence are recommended.

Keywords: dating violence; adolescence; intimate partner violence; prevalence

Introduction

Negative physical, sexual, and emotional experiences in early romantic relationships, often referred to as adolescent dating violence (ADV), are a present issue of concern. Early adolescence is an important time of development when many young people explore roles, develop their identity, and begin to form intimate relationships with their peers. Although positive romantic relationships have the potential to promote emotional development and provide foundational experiences for future relationships, romantic relationships in which violence occurs have numerous negative health effects. Various studies have shown that ADV is associated with negative mental and physical health outcomes (1, 2); moreover, longitudinal studies have identified the link between ADV and violence victimization and perpetration during adulthood (3). Although ADV has been paid great attention in the United States, it has received very limited attention outside of North America, with a particular lack of information in the early adolescence period (4-6). In light of scarcity of research on ADV both in the early adolescence period and from outside North America, more knowledge on ADV in these subgroups is warranted. In Scandinavian countries specifically, there have been no research studies examining violence in romantic relations among children below the age of 15 years, and thus, there is a lack of knowledge to guide preventive ADV interventions for this age group. Therefore, to strengthen the international as well as the Danish literature on ADV, the present study presents prevalence data on victimization and perpetration of three categories of ADV in a large sample of Danish students entering adolescence.
Adolescent dating violence in early adolescence

Research evidence suggests that adolescents usually start dating when they are between 12 and 14 years old (7). A large American study has shown that one-fourth of all 12-year-olds report having had a romantic relationship in the previous 18 months (8), and the Center for Disease Control and Prevention estimates that 72% of adolescents aged between 13 and 16 years are dating or have experiences with dating (9). However, only a minority of ADV research studies included subjects below the age of 15 years (10, 11). Moreover, a large proportion of the studies that do include subjects below the age of 15 years do not report the specific prevalence for each specific age, but rather report the prevalence of a whole age span, for instance, 12 to 17 years (10, 12, 13). In addition, to our knowledge, there is only one European population-based study of ADV that includes students below eighth grade (14). Thus, on a global scale, very little is known about the prevalence of ADV in early adolescence. Existing ADV studies vary significantly in methodology (including study design), which is why the reported incidents of ADV are difficult to compare. This is also the case in studies that investigate ADV in early adolescence. In a large national US study that examined severe ADV, the 12-year-olds reported no victimization, and 0.5% and 1.7% of the 13 and 14-year-old adolescents, respectively, reported victimization (15). In other US studies, the reported victimization prevalence of ADV among 12 to 13-year-olds (seventh grade) have ranged from 1% to 77% (16-19). Some of the studies that examine ADV in early adolescence only include adolescents who have dated or who currently have a boyfriend (16, 18, 19), and the prevalence rates in these studies are therefore difficult to compare with the prevalence rates found in population-based studies. Moreover, some of these studies investigate a range of ADV forms such as emotional, physical, and sexual ADV, whereas others examine only one form of ADV (17, 19), or only one perspective – for instance, victimization or perpetration (15, 19). Thus, non-US studies that investigate the prevalence of ADV specifically in early adolescence, which furthermore investigate multiple forms of ADV and include both the victimization and the perpetrator perspective, are indeed warranted.

Victimization

Adolescents are particularly important in the relationship violence context, because of a higher exposure to violence in such relationships than those in the older age groups (20). Moreover, adolescents have been found to have an increased vulnerability in terms of developing negative symptoms after traumatic experiences such as exposure to violence (21). Victimization of ADV has been correlated with a wide array of negative sequelae such as physical injury, substance use, post-traumatic stress disorder, lowered self-esteem and self-worth, psychosomatic reactions, depression, anxiety, and school performance disruption (1, 2, 22). Overall, the prevalence rates of ADV vary extensively, mainly as a result of different research methodology (14, 23-25). Differences in the framing of questions and core concepts such as “dating” make it difficult to compare results across studies. A new meta-analytic review that included adolescents in the age group from 13 to 18 years suggests that one-fifth (21%) of all girls and boys have been victims of physical violence, and that 14% of all girls and 8% of all boys have been victims of sexual violence in a dating relationship (24). In another systematic review of ADV that included adolescents from 12 to 18 years, the prevalence of emotional/psychological ADV victimization ranged from 17% to 88% (11). A UK study, which examined ADV among students aged 13 to 16 years, found that 72% of the girls and 51% of the boys had been exposed to emotional violence, 25% of the girls and 18% of the boys had been victims of physical ADV, and 31% of the girls and 16% of the boys reported sexual ADV victimization (14). In a Danish study that included participants aged 16 to 24 years, the prevalence of emotional ADV victimization was 13.3% for the girls and 27.6% for the boys, the prevalence of physical ADV victimization was 11% for the girls and 25% for the boys, and the prevalence of sexual ADV victimization was 7.6% for the girls and 3.2% for the boys (26). The aforementioned studies use very different definitions of dating violence and scales to measure ADV. Moreover, the prevalence in many studies is based on a wide age range. Throughout the literature, it has been concluded that the prevalence of ADV increases continuously during adolescence (27-29). Considering this, the applicability of an overall prevalence of ADV is limited. This issue is discussed in Leen et al. (10) who state that “accurate and specific age reporting would be particularly welcome” (p. 169). Thus, despite a considerable amount of data on ADV victimization, the results are difficult to compare, and our knowledge is still limited. To make solid conclusions regarding the prevalence of ADV victimization, studies that focus on classes or years (as opposed to a wide age range) and use the same type of scales and similar definitions of dating violence are indeed warranted.

Perpetration

Our understanding of dating violence perpetration in adolescence is even more limited. Only a minority of ADV studies report the prevalence of perpetration. However, recent studies have provided perpetration
rates: in a meta-analytic review of ADV from 2016, the perpetration rate for physical ADV was 25% for the girls and 13% for boys, and the perpetration rate for sexual ADV was 10% for the boys and 3% for the girls (24). Unfortunately, the meta-analysis did not include emotional ADV in the analyses. The reported prevalence on physical and sexual ADV is, however, very similar to the prevalence found in the study by Barter et al. (14), where 25% of the girls and 8% of the boys reported using physical ADV, and 3% of the girls and 12% of the boys reported perpetration of sexual ADV. This study furthermore included rates for emotional ADV, and the reported prevalence was as high as 59% for the girls and 50% for the boys. In a recent nationally representative study from the United States, the reported prevalence of perpetration was much lower in all three ADV subcategories: 18% of the adolescents (girls = 21% and boys = 16%) reported perpetration of psychological ADV, 9% (girls = 11% and boys = 7%) reported perpetration of physical ADV, and 3% (girls = 2% and boys = 4%) reported perpetration of sexual ADV (25). Similar to the ADV victimization research, the methods behind the ADV perpetration results vary considerably. Overall, to apply the acquired knowledge on the prevalence of both perpetration and victimization of ADV, for example, in prevention programs, more comparative research would be preferable.

**Co-occurrence of adolescent dating violence roles and forms**

In recent years, researchers examining violence have begun to focus on the overlap between victimization and perpetration of ADV (25, 30-32). The reported prevalence of the overlap between ADV victimization and perpetration varies across studies. In some studies, bidirectional violence has been found to be almost as common as one-sided violence and has been estimated to occur in one-half to three-quarters of romantic relationships (30, 32). In a recent US study of 1058 adolescents aged 10 to 15 years, 35% reported both victimization and perpetration of ADV (25). Moreover, another US ADV study of 618 adolescent women aged 15 to 24 found that 19% reported both victimization and perpetration experiences (33). Data have demonstrated that the severity and rate of injuries may be greater in bidirectional violent relationships compared with one-sided violence (34, 35). However, owing to the variation in study sampling and methodology in ADV studies, still relatively little is known about bidirectional violence (25). As individuals with bidirectional ADV experiences may have different backgrounds and outcomes than individuals with one-sided violence experiences, overlaps in ADV victimization and perpetration are essential to report (23). Moreover, of importance, though much less reported, is the co-occurrence of emotional, physical, and sexual ADV. In a recent US study that included 1058 adolescents and young adults aged 14 to 21 years, 19% reported victimization and 9% reported perpetration of two or more ADV forms (25). Another US study that included adolescents aged 12 to 18 years found that approximately 20% reported perpetration of two or more forms of ADV (27). However, owing to the limited number of studies reporting the degree of co-occurrence, the extent to which adolescents who report one form of ADV also experience or use other forms of ADV is still unclear. Findings on co-occurrence between different forms of ADV are particularly important in relation to interpretations of ADV outcome studies, as established associations between one form of ADV and a certain outcome may be affected by other ADV experiences.

**Gender differences**

Existing research has offered varying results regarding sex differences in the prevalence of ADV. There is a general trend for slightly higher levels of male victimization of physical ADV (10); however, results from studies on adolescent physical ADV are mixed, and no clear pattern has yet been established (36). Prevalence rates of emotional ADV are similar across genders, with small variations across studies (10). Some findings suggest that boys and girls use similar levels of both physical and emotional violence toward their partners (37-39) resulting in propositions that adolescent ADV demonstrates a greater degree of gender symmetry compared with adult partner violence where women are predominantly the victim. Although studies show that boys and girls use similar levels of physical violence toward their partners, different patterns emerge (36, 38, 39). Some evidence demonstrates that although girls use violence predominantly for self-defense, boys mainly use violence as the primary aggressor to exert control over their partner (38, 40). Furthermore, there is evidence that girls are more often exposed to more severe and injurious violence compared with boys (41). Thus, gender equalities in the prevalence of ADV may not uncover important underlying gender differences in violence experiences. Results from studies on sexual ADV in adolescence are unambiguous, finding that more boys than girls are perpetrators and that more girls than boys are victims of sexual ADV (24, 27, 42). Moreover, gender differences have been found among adolescents, reporting co-occurrence of victimization and perpetration and co-occurrence of violence forms (25, 27). Research findings indicate that female adolescents may be more likely to report both victimization and perpetration of ADV.
compared with male adolescents (25, 27, 37-39) and more likely to report co-occurrence of different ADV forms when compared with male counterparts (27). However, as presented before, research on co-occurrence of ADV roles and forms is very limited, and more knowledge is needed to confirm these trends.

**Current study**

The aim of the present study was to provide data on the prevalence and characteristics of ADV in a Danish early adolescent sample. Based on previous findings of ADV in European countries (26, 40), we expected that emotional, physical, and sexual forms of ADV would also be prevalent among Danish adolescents, that emotional ADV would be more prevalent than physical ADV and that physical DV would be more prevalent than sexual ADV. Based on a very scarce and mixed database regarding ADV in early adolescence (15, 23, 24), we did not form further hypotheses regarding prevalence in the present study. We wanted to investigate gender differences in relation to both victimization and perpetration of all three categories of ADV, and in relation to the co-occurrence of ADV roles and ADV forms. Based on the literature, we expected no significant gender differences in victimization or perpetration of emotional ADV (10). In contrast, we expected a higher prevalence of sexual ADV victimization among the girls and a higher prevalence of sexual ADV perpetration among the boys (12). Because of the incongruent nature of the data on physical ADV, we did not form any hypotheses regarding this form of ADV (41). Based on recent research findings (25, 27, 38), we expected to find a co-occurrence of ADV roles and ADV forms. Moreover, we expected to find some gender variation in these overlaps.

**Method**

The study was approved by the Danish Data Protection Agency (j. no. 2013-41-2505). The data collection was conducted from January to March in 2014. The present study is part of a larger study examining ADV in early adolescence.

**Procedure**

To recruit participants, all Danish public and private primary schools with seventh-grade students (1116 public schools and 380 private schools) were contacted via mail, outlining the aim and procedure of the study. The schools were given a one-week notice to reply. If we did not receive a reply, each school was contacted up to four times, by both e-mail and phone. A total of 86 schools (5.7%) decided to participate in the present study. Primary reason given for non-participation was the lack of resources owing to the implementation of an extensive school reform at the current time. Overall, it was our general impression that the schools with more resources (time wise and administratively) were more likely to participate and thus there may be a tendency toward more well-functioning schools and students in the present study. However, we have no data to confirm this impression.

| TABLE 1. Regional distribution of seventh-grade students. Study sample vs. national distribution |
|-----------------------------------------------|-----------------------------------------------|
| Study sample distribution                  | National distribution |
| Region Hovedstaden (Capital)                | 586 (20.1%)                      | 18.925 (29%)   |
| Region Sjælland (Zealand)                  | 315 (10.8%)                      | 10.069 (15%)   |
| Region Syddanmark (Southern Denmark)       | 655 (22.5%)                      | 14.887 (22%)   |
| Region Midtjylland (Central Denmark)       | 917 (31.5%)                      | 15.783 (24%)   |
| Region Nordjylland (North Denmark)         | 437 (15 %)                       | 6826 (10%)     |
| Total                                        | 2910                           | 66.490         |

Of the students who were included in the present study (N = 2910), 78% (n = 2272) went to public schools and 22% (n = 638) went to private schools. This is compatible with the actual national distribution of students in public and private schools, which is 82% and 18%, respectively (43). The regional distribution of the study sample differs slightly from the actual national distribution of seventh-grade students. Table 1 illustrates the differences between the study sample and the actual national distribution.

In the participating schools, an e-mail was sent to all parents, informing them about the study aim, content, and procedure for data collection. School officials consented to allow students to participate, and in addition, agreement was gained to use opt-out parental consent for young people. Thus, parents were required to send back participation forms within 14 days only if they did not want their child to participate.

The primary teacher in each class conducted the survey. Before the study, the teacher received written instructions on how to conduct the survey. On the survey day, the purpose of the study was explained to the students, and they were asked to sit by themselves so that others could not see their answers. In
addition, the students were informed that they had the right not to participate if they did not wish to. After the students had filled out the questionnaires, the teacher placed them in a box and sealed it in front of the class. Moreover, the teacher handed out information on helplines and other relevant contacts to the students, in case they felt uncomfortable or needed someone to talk to after filling out the questionnaire.

**Measures**
To capture ADV as it has been conceptualized in previous studies, the students were asked to indicate how often they had been the victim or perpetrator (respectively) of a range of specific acts in the company of a peer described as follows: “a girlfriend or boyfriend/ex-girlfriend or ex-boyfriend/a person they were dating or had been together with in a romantic way that could be characterized as more than friends,” along with “someone who were no more than 3 years older or younger than themselves.”

Most of the United States and wider international literature has adopted the term “dating violence” to describe this area of research. However, this terminology does not transfer well to the Danish context. In the Danish language, it is very difficult to distinguish the definition of dating from the definition of a steady relationship, and there is no Danish word for the dating phenomenon. Cultural issues related to the definition of dating do not only apply to the Danish cultural context. Indeed, the issue has also been discussed in other studies of dating violence (14, 19). For example, Barter (14) argued that the overall term “partner exploitation and violence” seemed more appropriate and cultural sensitive in a British context. Thus, cultural discrepancies related to the dating term indeed warrant caution against potential bias and misconceptions when investigating DV in cultural contexts outside the United States. Moreover, the wording and context of many existing scales were not suitable for the age group in the present study, and therefore needed a revision to fit the Danish seventh-grade population. In Denmark, it is not legal to drive before the age of 18 years; very few people have access to weapons, and the prevalence of, for instance, gang-related violence is relatively low (42). Hence, questions in the existing recognized scales involving driving/cars, weapons, or gangs, such as the Juvenile Victimization questionnaire (44) or the Safe Dates survey (45), are not appropriate for Danish adolescents. Consequently, we chose to revise the existing scales. In November 2013, a pilot study was conducted in three school classes. The students filled out the questionnaire and were asked which specific items they found difficult, odd, or in other ways questionable. The questionnaire was adjusted based on these comments.

**TABLE 2. Emotional dating violence: prevalence (one event or more)**

<table>
<thead>
<tr>
<th>Victimization*</th>
<th>Total n (%)</th>
<th>Boys n (% of boys)</th>
<th>Girls n (% of girls)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tried to control where you went and who you spent time with?</td>
<td>319 (11.3)</td>
<td>140 (10.4)</td>
<td>174 (12.0)</td>
</tr>
<tr>
<td>Damaged something that was valuable to you on purpose?</td>
<td>231 (8.2)</td>
<td>104 (7.7)</td>
<td>123 (8.6)</td>
</tr>
<tr>
<td>Yelled at you or said something to hurt your feelings?</td>
<td>527 (18.7)</td>
<td>231 (17.3)</td>
<td>296 (19.8)</td>
</tr>
<tr>
<td>Said things to insult or humiliate you in front of others?</td>
<td>542 (19.2)</td>
<td>238 (17.8)</td>
<td>298 (20.6)</td>
</tr>
<tr>
<td>Criticized how you look?</td>
<td>488 (17.3)</td>
<td>198 (14.8)</td>
<td>282 (19.4)</td>
</tr>
<tr>
<td>Threatened to hit, kick, or throw something at you?</td>
<td>267 (9.5)</td>
<td>147 (11.0)</td>
<td>116 (8.0)</td>
</tr>
</tbody>
</table>

**Perpetration**

<table>
<thead>
<tr>
<th>Total n (%)</th>
<th>Boys n (% of boys)</th>
<th>Girls n (% of girls)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tried to control where he/she went and who they spent time with?</td>
<td>154 (5.4)</td>
<td>63 (4.7)</td>
</tr>
<tr>
<td>Damaged something that was valuable to him/her on purpose?</td>
<td>67 (2.4)</td>
<td>40 (3.0)</td>
</tr>
<tr>
<td>Yelled at you or said something to hurt his/her feelings?</td>
<td>361 (12.8)</td>
<td>160 (11.9)</td>
</tr>
<tr>
<td>Said things to insult or humiliate him/her in front of others?</td>
<td>280 (9.9)</td>
<td>138 (10.3)</td>
</tr>
<tr>
<td>Criticized how he/she looked?</td>
<td>264 (9.4)</td>
<td>114 (8.6)</td>
</tr>
<tr>
<td>Threatened to hit, kick or throw something at him/her?</td>
<td>150 (5.3)</td>
<td>95 (7.1)</td>
</tr>
</tbody>
</table>

*37 students did not state their gender

**TABLE 3. Physical dating violence: prevalence (one event or more)**

<table>
<thead>
<tr>
<th>Victimization*</th>
<th>Total n (%)</th>
<th>Boys n (% of boys)</th>
<th>Girls n (% of girls)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hit, kicked, or threw something at you on purpose?</td>
<td>254 (9.1)</td>
<td>147 (11.1)</td>
<td>104 (7.2)</td>
</tr>
<tr>
<td>Physically hurt you in other ways?</td>
<td>204 (7.3)</td>
<td>108 (8.2)</td>
<td>92 (6.4)</td>
</tr>
</tbody>
</table>

**Perpetration**

<table>
<thead>
<tr>
<th>Total n (%)</th>
<th>Boys n (% of boys)</th>
<th>Girls n (% of girls)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hit, kicked, or threw something at him/her on purpose?</td>
<td>148 (5.3)</td>
<td>97 (7.3)</td>
</tr>
<tr>
<td>Physically hurt him/her in other ways?</td>
<td>80 (2.8)</td>
<td>60 (4.7)</td>
</tr>
</tbody>
</table>

*37 students did not state their gender
Perpetration and victimization of emotional ADV and physical ADV (see Tables 2 and 3) were assessed with six items and two items, respectively. These items were constructed with inspiration from the Safe Date Psychological Abuse Victimization survey (45) and the National Intimate Partner and Sexual Violence Survey (46). The emotional and physical ADV experiences were measured on a five-point scale (1: never, 2: 1 time, 3: 2 to 3 times, 4: 4 to 10 times, and 5: >10 times). Sexual ADV (see Table 4) was measured by three items, drawing content from the Sexual Experiences Survey (47). The items examined unwanted sexual touching (grabbing, kissing, or similar) and unwanted attempted and completed sexual intercourse. The three sexual DV items were measured on a four-point scale (1: never, 2: 1 time, 3: 2 times, and 4: ≥3 times). Participants who responded to at least one item within an ADV scale (e.g., one of the six emotional ADV items) were included in the analyses. To fit the purpose of the present study, emotional, physical, and sexual ADV were dichotomized (yes/no), meaning that the prevalence of emotional, physical, and sexual ADV experiences included students who reported at least one experience of either.

In addition, relevant descriptive information was retrieved through self-constructed items: 1) “Have you ever had a boyfriend/girlfriend” (yes/no); 2) “If yes, do you have a girlfriend/boyfriend right now?” (yes/no), and sexual experience: “have you ever had consensual sex?” (yes/no).

**Results**

**Participants**

In total, 86 schools (57 public schools and 29 private schools) were included in the study. A total of 3732 students were signed up for the study through their schools. Of these, 666 (17.8%) students did not show up on the day of data collection, had changed school, did not wish to participate, or were deemed unfit to participate because of, for instance, dyslexia. Furthermore, 32 students (0.9%) did not participate owing to parental withdrawal. Thus, the total number of filled-out questionnaires was 3034. In the process of entering data, 124 questionnaires were excluded because of unrealistic answers (e.g., 10,000 sexual partners), duplicates, or missing data.

Descriptive information is shown in Table 5. Of the total sample, more than half (62.6%) reported ever having had a boyfriend/girlfriend, 8.2%
reported having a girlfriend/boyfriend at present, and 3.9% reported having had consensual sex.

**Victimization**

In Table 6, the prevalence rates of the three forms of ADV are presented. The prevalence of emotional ADV victimization (32.2%) was significantly higher than physical ADV (11.2%) and sexual ADV (10.6%). In Table 2, the reported prevalence of emotional ADV single-items is presented. Victimization of the six indicators of emotional ADV was reported by 8.2% to 19.2% of the students.

“Yelled or said hurtful things” (18.7%) and “said things to insult or humiliate in front of others” (19.2%) were the most prevalent. As presented in Table 3, the reported victimization prevalence of the two physical ADV items was 7.3% and 9.1%, with “physical violence by hitting, kicking or throwing,” being the most prevalent. In Table 4, the reported prevalence of the sexual ADV single items is presented. Victimization of the three sexual ADV items was reported by 2% to 9.8% of the students, with “Unwanted sexual touching (kissing, grabbing, or similar)” being the most prevalent.

| TABLE 6. Adolescent dating violence — prevalence and gender differences (one event or more) |
|-----------------------------------------------|------------------|------------------|------------------|
|                                             | Total n (%) | Boys n (% of boys) | Girls n (% of girls) |
| Victimization                               |             |                  |                   |
| Emotional ADV                              | 920 (32.2)  | 424 (31.3)        | 475 (32.4)         |
| Physical ADV                                | 316 (11.2)  | 174 (13.1)        | 135 (9.3)          |
| Sexual ADV                                  | 306 (10.6)  | 93 (6.8)          | 196 (13.3)         |
| 1 type                                      | 597 (20.6)  | 286 (20.7)        | 302 (20.4)         |
| 2-3 types                                   | 425 (14.7)  | 193 (14.0)        | 232 (15.4)         |
| Perpetration                                |             |                  |                   |
| Emotional ADV                              | 586 (20.6)  | 269 (19.9)        | 317 (21.0)         |
| Physical ADV                                | 166 (6.0)   | 42 (3.0)          | 124 (8.4)          |
| Sexual ADV                                  | 61 (2.1)    | 41 (3.0)          | 20 (1.4)           |
| 1 type                                      | 455 (15.7)  | 186 (13.5)        | 269 (17.6)         |
| 2-3 types                                   | 175 (6.1)   | 114 (8.3)         | 61 (4.0)           |
| Both Victimization and perpetration         |             |                  |                   |
| Emotional ADV                              | 503 (17.5)  | 216 (16.1)        | 287 (18.6)         |
| Physical ADV                                | 124 (4.3)   | 85 (6.5)          | 39 (2.5)           |
| Sexual ADV                                  | 39 (1.4)    | 26 (1.9)          | 13 (0.7)           |
| Both victimization and perpetration total   | 548 (18.9)  | 236 (17.2)        | 275 (18.6)         |

*Significant gender differences measured by χ² test (p < 0.01)

Perpetration

Regarding the prevalence of the three forms of ADV perpetration (Table 6), the same pattern or hierarchy as in the ADV victimization prevalence emerged: the prevalence of perpetration of emotional ADV (20.6%) was significantly higher than perpetration of physical ADV (6%), and sexual ADV (2.1%). As presented in Table 2, the reported perpetration prevalence of the emotional ADV items was 2.4% to 12.8%, with “said things to insult or humiliate in front of others” (9.9%), and “yelled or said hurtful things” (12.8%) being the most prevalent. Perpetration of the physical ADV items was reported by 2.8% and 5.3% of the students, with physical violence by “hitting, kicking or throwing” being the most prevalent (see Table 3). Perpetration of the three sexual ADV items were reported by 0.8% to 1.6% of the students, and unwanted sexual touching (kissing, grabbing, or similar) was the most prevalent (see Table 4).

Co-occurrence of adolescent dating violence roles and forms

A considerable number of students reported both victimization and perpetration of ADV (see Table 6). Of all respondents, 548 students (18.9%) reported both victimization and perpetration of one of the three ADV forms (not necessarily victim or perpetrator of the same form of ADV). Within the specific ADV forms, an overlap was most evident among students who reported emotional ADV victimization of whom more than two-thirds (86%) reported being both a perpetrator and a victim of emotional ADV. Most students who reported being a perpetrator of physical ADV (72.8%) and almost half of the students who reported being a perpetrator of sexual ADV (40%) also reported victimization of physical ADV. Moreover, approximately half (53%)
of the students who reported victimization of physical ADV reported perpetration of physical ADV as well, and 20% of the students who reported victimization of sexual ADV reported perpetration as well. The results furthermore suggest that a considerable number of students were victims or perpetrators of more than one form of ADV; across the sample, 14.7% reported being victims of two or three of the three ADV forms (emotional, physical, and sexual), and 6.1% reported perpetrating two or three of the ADV forms.

Gender differences
A chi-square test for independence indicated significant gender differences across ADV forms. As shown in Table 6, there were significant gender differences in victimization and perpetration of the overall ADV categories (emotional, physical, and sexual ADV). Of the victimization categories, the boys reported a higher prevalence of physical ADV $\chi^2(1, n = 2792) = 10.41, p = 0.00, \phi = -0.06$], and the girls reported a significantly higher prevalence of sexual ADV $\chi^2(1, n = 2847) = 28.36, p = 0.00, \phi = 0.10$. There were no gender differences in victimization of emotional DV $\chi^2(1, n = 2820) = 0.37, p = 0.55, \phi = 0.01]$. Of the perpetration categories, the boys reported a higher prevalence of physical ADV $\chi^2(1, n = 2792) = 26.90, p = 0.00, \phi = -0.10\text{ and sexual ADV}$ $\chi^2(1, n = 2836) = 15.77, p = 0.00, \phi = -0.08\text{. There were no gender differences in perpetration of emotional ADV}$ $\chi^2(1, n = 2814) = 0.46, p = 0.50, \phi = 0.01]$. The proportion of students who reported both victimization and perpetration of any form of ADV did not differ significantly across genders $\chi^2(1, n = 2849) = 0.94, p = 0.33, \phi = 0.02]$]. Significantly more boys than girls reported both victimization and perpetration of physical ADV $\chi^2(1, n = 2823) = 23.69, p = 0.00, \phi = -0.09\text{ and sexual ADV}$ $\chi^2(1, n = 2852) = 8.20, p = 0.00, \phi = -0.06\text{, whereas no gender differences were found in both victimization and perpetration of emotional violence}$ $\chi^2(1, n = 2797) = 2.88, p = 0.09, \phi = 0.03]$. No gender differences were found in victimization of two or three ADV forms $\chi^2(1, n = 2858) = 1.13, p = 0.29, \phi = 0.02$. However, significantly more boys than girls reported perpetration of two or three forms of ADV $\chi^2(1, n = 2853) = 22.36, p = 0.00, \phi = -0.09]$.

Discussion
Adolescent dating violence in early adolescence
Our data suggest that more than half of the seventh-grade students have had a girlfriend or boyfriend, and that many students are exposed to adverse events in relation to dating. Thus, although there are great differences in maturity and dating experiences among the students in seventh grade, the results of the present study suggest that it is both relevant and important to address the subject of sexual experiences and potential negative dating experiences already in early adolescence.

An overall reluctance to address ADV experiences in early adolescent populations may explain the existing limited knowledge about ADV in this age group. Moreover, most interventions aimed at reducing the prevalence of ADV are implemented in late high school or college (48). A longitudinal Canadian study of adolescent ADV showed that the severity of ADV among those who reported victimization and/or perpetration increased over time (49). This finding suggests that ADV patterns, which emerge in early relationships, make adolescents vulnerable to later victimization and/or perpetration of ADV. Thus, if these risk factors are identified early on, later and more severe ADV could be prevented. If adolescents are already exposed to ADV at the age of 13 years or even younger, school-based interventions in late adolescence may fail to reach students who have already formed negative relationship patterns. Nineteen years ago, Wekerle and Wolfe suggested that ADV begins to emerge between the ages of 15 and 16 years (51). However, the present results, along with results from an increasing number of other studies (23, 41, 52), suggest that we should broaden our focus to effectively target the issue of ADV. Thus, a higher focus on the initial phases in the development of ADV patterns seems highly relevant.

Victimization
The results of the present study highlight that Danish students in the seventh grade are indeed exposed to negative emotional, physical, and sexual dating experiences. More than one in three students reported victimization of at least one ADV experience. The reported victimization prevalence of emotional ADV (32.2%), physical ADV (11.2%), and sexual ADV (10.6%) is high and calls for further attention. Discussing the results within the context of the current knowledge base is not an easy task. As presented, ADV prevalence studies in early adolescence, particularly from European countries, are sparse. Moreover, the studies that do exist vary substantially in research methodology. Compared with a similar Danish study that examined dating violence among respondents who were 16 to 24 year old (26), the presented prevalence rate is relatively high. However, in this particular Danish study, dating was defined as “being in a steady relationship” and therefore a range of dating contexts and thereby ADV behaviors were not included in the study. This example highlights how definitions may determine
prevalence rates to a great extent. Moreover, the example points out why an overall ADV prevalence is of little use when such different definitions and types of scales are applied. When compared with the findings from meta-analyses from the United States, which include adolescents from 12 to 18 years (10), and 13 to 18 years (24), the presented prevalence of victimization does not seem to stand out. Yet again, compared with a similar British study that included 13- to 16-year-old students (40), the presented prevalence of the three ADV forms is relatively low. However, because the students in the present study were 13.3 years old on average, and were all just entering adolescence, it is indeed remarkable that they reported such high levels of ADV. Prior research has shown that there is a slight tendency toward a higher prevalence of ADV victimization in Europe compared with the United States (10). However, it is unclear whether this difference is accurate or is skewed by the scarcity of European data. More research is needed to conclude whether the comparatively high prevalence rates in the similar British study (40) and the present Danish study are results of methodological issues, for example, in relation to the definition of dating or the applied scales, or they are indeed an expression of a higher prevalence of ADV in Europe. Nonetheless, the found prevalence rate indicates that ADV is very much prevalent already at the entry of adolescence.

**Perpetration**

The prevalence of all three forms of ADV was approximately twice as high or higher for victimization as for perpetration. This tendency has consistently been reported in previous similar studies (24, 52) and may imply a general tendency of underreporting of violence perpetration (53). There are a number of theoretical or methodological stances that have been taken regarding possible reasons for lower reports or underreporting of dating violence perpetration. The low prevalence of perpetration compared with victimization may imply that some of the perpetrators are multiple perpetrators, and that there is thus more than one victim of some perpetrators. Moreover, it has been argued that both male and female individuals underreport their aggressive behavior for a variety of related reasons including social desirability (54, 55), intentional underreporting, and egocentric bias in which one reports fewer negative behaviors of oneself than of a partner (56). When compared with perpetration rates in recent adolescent ADV studies (24, 25, 40), the perpetration prevalence in the present study is relatively low. One explanation for this finding could be the age of the participants in the present study. Although research suggests that adults and adolescents tend to underreport their own partner violence perpetration, this issue is yet to be investigated among children and early adolescents. It may be that early adolescents are even less prone to define themselves as perpetrators than older adolescents or adults, and the tendency of underreporting perpetration may therefore be stronger in the younger age groups. Although we tried to get around issues related to self-reporting of perpetration by using objective and non-judgmental act items in the present study, early adolescents may be less willing to admit doing something “wrong.” Indeed, this would be an interesting subject for further studies in the ADV research context.

**Co-occurrence of adolescent dating violence roles and forms**

Of all students, approximately one in five reported being both victimized and a perpetrator of ADV. Of the students who reported being perpetrators of either emotional, physical, or sexual ADV, more than half reported being victims as well. This is very important information for developers of preventive programs. Although existing ADV prevention programs have affected attitudes and norms, affecting actual perpetration rates has proved difficult (57). Results of the present study underscore the need for comprehensive prevention programs that address the causal relationship between victimization and perpetration of ADV. In addition, co-occurrence of the three ADV forms was identified. Of the total sample, 14.7% reported at least two forms of ADV victimization and 6.1% reported at least two forms of ADV perpetration. The co-occurrence rates are slightly lower than the rates found by Ybarra et al. (25) and Sears et al. (27). Owing to the reported tendency of a continuous increase of ADV during adolescence (28, 29), it is, however, meaningful that the prevalence of co-occurrence is lower in the present study which only focuses on adolescents in seventh grade. A very high proportion of the students who reported victimization and perpetration of ADV reported multiple forms of ADV. This highlights that victimization should not just be conceptualized as victimization of a specific type of ADV but that we need to recognize the existence of sub-classes of adolescents with different violence profiles. As Ybarra and colleagues (25) have argued, the high degree of co-occurrence of different forms of ADV has made it impossible for previous studies to disentangle the negative effect of ADV victimization, particularly if only one form was examined. For example, researchers studying the negative effects of physical ADV victimization may have also captured the effects of psychological ADV victimization, making it difficult to determine which forms of ADV have particularly deleterious effects. To address this
issue in the future, researchers may need to assess all forms of ADV — as well as victimization and perpetration simultaneously.

**Gender differences**

In accordance with the existing literature (10), we did not find any gender differences in victimization or perpetration of emotional ADV. Previous studies have indicated that female individuals are equally or even more likely to report perpetration of physical ADV, particularly in adolescent samples (22, 38, 50). In the present study, more boys than girls reported perpetration and victimization of physical ADV. Given that we would expect a balance between victimization and perpetration of ADV across genders, there seem to be some methodological or cultural factors leading to underreporting or overreporting by one gender. Research indicates that there may be some level of societal acceptance of girls’ romantic aggression (17). Although some girls may not perceive their own aggressive actions as violence, boys may experience it as such, and the violence is therefore underreported by the female perpetrators but not by the male victims. This is, however, one of the several possible explanations. In general, research on gender differences in physical ADV is showing widely varying results and we still need more detailed investigating and qualitative data on this type of violence. In line with the previous research (24, 27), the girls reported higher rates of sexual victimization, and the boys reported higher rates of perpetration of sexual ADV. Gender differences were also found in the co-occurrence of ADV roles and forms. More boys than girls reported both victimization and perpetration of physical and sexual ADV, suggesting that a higher proportion of boys who had been victims of sexual and physical violence were also perpetrators of sexual and physical violence or vice versa. This finding is in contrast to the previous findings that female individuals are more likely to report bidirectional ADV (25, 27). The finding largely reflects that more boys than girls reported perpetrating physical and sexual ADV. Moreover, studies on gender differences in the transmission of violence have found that boys are more likely to externalize victimization experiences by perpetrating violence than girls (58-60), and the high victimization-perpetration co-occurrence among boys in the present study may potentially illustrate this gender pattern. Without more complete victimization backgrounds, that is, further information about other victimization experiences, we were, however, not able to examine this specific pattern further. More boys than girls reported perpetration of multiple forms of ADV. As significantly more boys than girls reported perpetration of physical and sexual ADV, this finding is not surprising. However, the finding underscores the need for attention on differences across genders and violence experiences. These perspectives are important when interpreting the results, and need to be noticed to improve future research studies, which are aimed at establishing the prevalence of ADV. Moreover, they are essential in preventive contexts. For instance, if boys are more likely to perpetrate more forms of ADV than girls as found in the present study, this could mean that the violence dynamics should be addressed and targeted differently.

**Limitations**

With a large sample size and an extensive questionnaire, the present study is an eligible contribution to the ADV literature. However, the study has limitations. At the time of recruitment, a large national school reform was being implemented. This reform was very resource demanding, which meant that the participation rate of the schools was much lower than expected. Although the study included students from all five Danish regions, and that the students were spread out very similarly to the actual national distribution of the seventh-grade students, and although Denmark is a very uniform country socially and culturally, the sampling could have been somewhat biased because the more resourceful schools may have been more inclined to participate. Moreover, in the present study, there was some indication toward a tendency of underreporting in relation to perpetration of ADV. Finally, owing to the lack of culturally validated ADV scales, self-constructed measures were applied.

**Conclusion and clinical significance**

The present study highlights that a large proportion of Danish seventh-grade students are indeed experiencing ADV. Victimization of emotional ADV was reported by nearly one-third of the students, whereas approximately one of ten students reported being victims of physical ADV and sexual ADV. In accordance with prior research, prevalence rates of ADV perpetration were much lower. One of five students reported both victimization and perpetration of ADV, and 14.3% and 6% reported multiple forms of ADV victimization and perpetration, respectively. Various gender differences in the prevalence of victimization and perpetration of ADV were identified, which indicate that there are gender differences in the prevalence across ADV forms. Based on the high prevalence found, a greater focus on the initial phases of the development of ADV patterns, especially in relation to future research studies and preventive actions, is recommended. The reported co-occurrence of ADV roles and forms as well as related gender differences
highlights the need for focusing on ADV violence patterns and typologies instead of simple violence categories. Moreover, based on the high proportion of students reporting co-occurrence of victimization and perpetration experiences, comprehensive preventive programs that focus on both victimization and perpetration experiences are encouraged.

Disclosure
We obeyed the Helsinki Declaration by informing the students that participation was voluntary, by obtaining consent from students and heads of schools and additionally opt-out consent from parents.

The study followed the Nordic ethical guidelines for psychologists, and according to Danish law for this type of study, no other approval is needed.

Our study was approved by the data protection agency and we have adhered to all legislation concerning data handling for pseudo anonymous data.

Conflicts of interest
The authors declare no conflict of interest.

References


