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The National Prevalence of Adolescent Dating Violence in Canada

Deinera Exner-Cortens, Ph.D., M.P.H.^{a,*}, Elizabeth Baker, Ph.D.^b, and Wendy Craig, Ph.D.^c^a Department of Psychology, University of Calgary, Calgary, Alberta, Canada^b Department of Psychology, University of Calgary, Calgary, Alberta, Canada^c Department of Psychology, Queen's University, Kingston, Ontario, Canada

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A B S T R A C T

Purpose: The national prevalence of adolescent dating violence (ADV) in Canada is currently unknown. This study presents the first nationally representative Canadian data on prevalence and correlates of ADV victimization and perpetration.

Methods: This study analyzed data from the 2017/2018 Health-Behavior in School-Aged Children (HBSC) dataset. Youth from all 10 provinces and two territories participated. The analysis sample includes 3,711 participants (mean age = 15.35) in grades 9 and 10 who reported dating experience in the past 12 months. Youth were asked to report on physical, psychological and cyber ADV victimization and perpetration. To explore correlates of ADV, we included grade in school; gender (male, female or non-binary); race/ethnicity; family structure; immigration status; family affluence; food insecurity; and body mass index.

Results: We found that over one in three Canadian youth who had dated experienced and/or used ADV in the past 12 months. Specifically, past 12-month ADV victimization prevalence was 11.8% (95% CI: 10.4, 13.0) for physical aggression; 27.8% (25.8, 30.0) for psychological aggression; and 17.5% (15.8, 19.0) for cyber aggression, while perpetration prevalence was 7.3% (6.2, 9.0) for physical aggression; 9.3% (8.0, 11.0) for psychological aggression; and 7.8% (6.7, 9.0) for cyber aggression. Both victimization and perpetration were highest among non-binary youth (as compared to cis-gender males and females). Overall, use and experience of ADV was greatest among youth experiencing social marginalization (e.g., poverty).

Conclusions: ADV impacts a substantial minority of Canadian youth, and is a serious health problem. ADV prevention programs that focus on root causes of violence (e.g., poverty) are needed.

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IMPLICATIONS AND CONTRIBUTION

This study presents national data on adolescent dating violence (ADV) in Canada. One in three Canadian youth are involved with ADV, and ADV involvement is associated with social marginalization. It is thus critical that ADV prevention programs focus on root causes of violence.

Violence experienced in the context of dating and/or sexual relationships is a pressing health problem in Canada. Based on the most recently available General Social Survey data, 9% of Canadians aged 15 and older - over three million people - experienced

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* Address correspondence to: Deinera Exner-Cortens, Ph.D., M.P.H., Department of Psychology, University of Calgary, 2500 University Drive NW, Calgary AB, T2N 1N4, Canada.

E-mail address: deinera.exner2@ucalgary.ca (D. Exner-Cortens).

psychological, physical and/or sexual violence within a dating relationship in the past 5 years [1]. Further, in 2018, 17% of all police-reported violent crime in Canada was the result of violence victimization from a dating partner, and over a quarter of intimate partner homicides were committed by a boyfriend or girlfriend [2]. However, violence is not reported by the majority of victims to the police [3], and thus true Canadian prevalence estimates for adolescents are needed.

While intimate partner violence can happen at any age, violence that occurs during adolescence (known as adolescent dating violence, or ADV) is particularly concerning. ADV is

commonly defined as physical, sexual and/or psychological violence, including stalking, experienced in dating and/or sexual relationships in the early and mid-adolescent periods (~ages 11–18) [4]. When ADV is experienced online, it is referred to as cyber dating aggression/abuse, and includes methods of control and harassment (including sexual violence, psychological violence and stalking) through the use of technology and/or forms of media [5].

Adolescents who experience violence in a dating and/or sexual relationship are at increased risk to experience revictimization in adulthood [6], potentially due to the fact that adolescence is a key period of romantic relationship identity development [7,8]. The experience of dating violence in adolescence is also linked longitudinally to multiple adverse health outcomes, including mental health problems and substance use [9]. Thus, the prevention of ADV is key to stopping cycles of victimization, and to improving the health and well-being of individuals across the life course.

Because of the emergence of dating in this period, adolescence is also a key time for primary prevention efforts that work to stop ADV before it starts. However, effective prevention is grounded in a thorough understanding of the problem, but little is known about ADV in Canada, including its prevalence and correlates among youth of all genders. While several studies have published data on local ADV victimization rates, provincially and nationally representative data are scarce. Provincially, Shaffer and colleagues [10] report that in 2013, the prevalence of past 12-month physical ADV victimization among youth in British Columbia (mean age = 15.17) was 5.0%, with boys significantly more likely to report this type of victimization than girls (5.8% vs. 4.2%, respectively). In a large, representative sample of youth in Quebec, Hébert et al. [11] report an overall past 12-month prevalence rate for physical ADV victimization of 15.7% (girls) and 12.8% (boys) among adolescents aged 14–18. Hébert et al. [11] also report on the prevalence of psychological ADV victimization, finding that, as with physical victimization, prevalence was higher among girls in Quebec than boys (56.4% vs. 45.8%, respectively). These data suggest that ADV is not experienced uniformly across the country, highlighting the need for representative national data. Furthermore, neither study reported data for non-binary youth, or for cyber forms of ADV.

In terms of perpetration, provincial data have only recently been released, however, no national datasets currently report on ADV perpetration in Canada. Using the same sample as Hébert et al. [11], Théorêt et al. [12] report physical ADV perpetration prevalence of 18.0% for girls and 6.2% for boys in Quebec, and for psychological ADV perpetration, 51.2% for girls and 38.0% for boys. Additionally, the Théorêt et al. [12] paper found substantial overlap for both psychological and physical ADV victimization and perpetration (i.e., mutual aggression), a pattern also supported by recent meta-analytic data [13].

Beyond gender, research has demonstrated that ADV is not experienced equally by many other groups of youth. However, the majority of research on ADV correlates has focused on individually-situated (e.g., gender, race/ethnicity) [14] and interpersonal level (e.g., peers' use of dating violence, witnessing parental violence) [15,16] risk and protective factors, and has mostly neglected the larger social determinants of ADV (i.e., discussing that the risk factor is racism, not race) [8,17–19]. A growing body of research demonstrates that youth who are socially marginalized are more likely to experience and use ADV [20–22], as compared to youth who are members of socially

dominant groups. Contributing to the understanding of associations between marginalization and violence is a critical task for ADV research [8,19] (We define social marginalization as “groups and communities that experience discrimination and exclusion (social, political and economic) because of unequal power relationships across economic, political, social and cultural dimensions” [23]. We use the word *social* to indicate that marginalization does not sit within individuals, but stems from unequal power relationships external to the individual.).

Current study

Understanding of ADV across Canada is incredibly limited - without national prevalence data, it is difficult to offer targeted prevention supports and understand the potential health impact of ADV for Canadian youth. To address this need, we use data from the 2017/18 Health Behaviour in School-Aged Children (HBSC) study, a nationally representative survey of Canadian youth, and the first in Canada to explore physical, psychological, and cyber ADV victimization and perpetration among adolescents. To guide prevention efforts, the objectives of this paper are to 1) report national past 12-month prevalence estimates of physical, psychological, and cyber ADV victimization and perpetration among Canadian adolescents; and 2) explore differences between a) those who have experienced (victimization) and b) used (perpetration) ADV, as compared to individuals who neither experienced nor used ADV in a 12-month period, on key social marginalization correlates. For our second, exploratory aim, we hypothesize that members of groups that experience social marginalization (i.e., youth living in poverty; racialized youth) will report higher rates of ADV victimization and perpetration than youth in socially dominant groups, due to the stress and discrimination commonly experienced by minoritized groups in Western settings. For example, minority stress theory [24] suggests that the discrimination commonly experienced by these youth (e.g., sexual and gender minority youth) creates highly stressful environments that can lead to mental and behavioural health problems, including dating violence [25].

Methods

Data

This study analyzed data from the 2017/2018 Health-Behavior in School-Aged Children (HBSC) Canadian dataset. The HBSC is a cross-national study conducted every four years in collaboration with the Public Health Agency of Canada to examine the health and wellbeing of youth. HBSC data were collected from 21,750 Canadian youth in grades 6–10 in 2018. Data were collected anonymously, either electronically or using a paper-based survey depending on school preference. The HBSC survey was administered in classroom settings and completed by students during one class session. Youth from all 10 provinces and two territories participated. Ethics clearance for Canadian HBSC data collection was granted by the Research Ethics Boards at Queen's University and the Public Health Agency of Canada/Health Canada (the third author is the Canadian study lead). Participation was voluntary, and consent was obtained from school jurisdictions, school administrators, parents and students. For further details on sampling and geographic breakdown, please see the Canadian national HBSC report [26]. Data were weighted for proportional provincial and territorial representation.

Sample

The analytic sample was restricted to adolescents who 1) were in grades 9 and 10 (as only these individuals were asked about ADV; $n = 8,625$); and 2) consistently reported dating experience in the past 12 months (i.e., indicated across all six ADV questions that they had dated or gone out with someone during the past 12 months; $n = 3,854$). Following the application of sample weights, our final weighted sample size was 3,711.

Measures

Adolescent dating violence. Was assessed in the past 12 months using three questions each for victimization and perpetration. For victimization, participants were asked if someone they were dating or going out with 1) physically hurt you on purpose (physical); 2) tried to control you or emotionally hurt you (psychological); and/or 3) used social media to hurt, embarrass, or monitor you (cyber). For perpetration, participants were asked if they had 1) physically hurt on purpose someone you were dating or going out with (physical); 2) tried to control or emotionally hurt someone you were dating or going out with (psychological); and/or 3) used social media to hurt, embarrass, or monitor someone you were dating (cyber). Response options for both victimization and perpetration were 0 times, one time, two or 3 times, four or 5 times, or six or more times; participants could also indicate on each question that they did not date or go out with anyone during the past 12 months. For analyses, responses were dichotomized as 0 = *no dating violence* and 1 = *any dating violence*, as is typical when reporting ADV prevalence data [27]. Due to survey space constraints, only one question could be asked for each ADV type. The physical ADV question was adapted from the Youth Risk Behavior Surveillance (YRBS) survey [28]; the psychological ADV question from relevant sub-scales on the Conflict in Adolescent Dating Relationships Inventory (CADRI) [29]; and the cyber ADV question based on common content on existing cyber dating aggression measures [30]. These existing measures were used to create single item, behavior-focused questions that captured a broad range of behaviors within each type of ADV (i.e., physical, psychological, cyber).

Correlates. Included were age; grade in school; gender (male, female or neither term describes me, referred to here as non-binary); race/ethnicity (assessed using standard Statistics Canada categories, and collapsed into White, non-White; multiracial; Indigenous), family structure; and immigration status. Socioeconomic status was measured using the Family Affluence Scale [31], with higher scores indicating greater affluence. Food insecurity was assessed by asking how often the participant went to bed hungry because there wasn't enough food at home (1 = *always* to 4 = *never*) [32]. For analysis, this variable was dichotomized into yes (1 = *always, often or sometimes*) and no (0 = *never*). Body mass index (BMI) was assessed by dividing participants' height/weight; in these data, a BMI of ≥ 2 SD above the standardized mean is considered 'obese'.

Analysis

All analyses were conducted in SPSS V24 and RStudio V1.2.1335. Sample weights were applied using the R Survey package. To investigate whether ADV victimization and/or perpetration differed by grade, gender, race/ethnicity, family

structure, immigration status, food insecurity or BMI, weighted chi-square analyses were conducted. To investigate whether ADV victimization and/or perpetration differed by age or family affluence scores, independent samples *t*-tests were conducted.

Results

Demographics

The mean (SD) age in this sample was 15.35 (.70). As shown in Table 1, the sample was majority White (71.8%) and third (or more) generation Canadian (78.3%), but 24.9% reported that they were a visible minority (non-White or multiracial), and 3.3% reported that they were Indigenous (for comparison, in the 2016 Census, 72.8% of the Canadian population reported that they were White, 22.3% reported that they were a visible minority, and 4.9% reported that they were Indigenous) [33]. Participants were also overwhelmingly cisgender (43.4% male, 54.5% female); however, 2.1% of participants reported a non-binary gender identity.

ADV prevalence and frequency

Past 12-month ADV victimization prevalence among those with dating experience was 11.8% (95% CI = 10.4, 13.0) for

Table 1
Sample Sociodemographics, among adolescents with dating experience ($n = 3,711$)^a

Age, mean (SD), range	15.35 (.70), 10.42–18.33
Grade, % (n)	
Grade 9	51.5% (1,913)
Grade 10	46.4% (1,724)
Grade 11 ^b	2.0% (75)
Gender, % (n)	
Male	43.4% (1,603)
Female	54.5% (2,010)
Non-binary	2.1% (77)
Race/ethnicity, % (n)	
White	71.8% (2,641)
Non-White	13.1% (482)
Multiracial	11.8% (436)
Indigenous ^c	3.3% (121)
Family structure, % (n)	
Two parent	79.0% (2,882)
Single parent	18.5% (676)
Other	2.4% (89)
Immigration status, % (n)	
First generation	11.8% (438)
Second generation	9.5% (353)
Third generation	78.3% (2,898)
Don't know	_d
Food insecurity, % (n)	
Yes	18.5% (682)
No	81.5% (3,000)
Body Mass Index (BMI), %, (n)	
< 2 SD above the mean	94.3% (2,854)
≥ 2 SD above the mean	5.7% (172)
Family affluence, mean (SD), range	8.13 (2.77), 0–13

ADV—Adolescent dating violence. Percentages may not add to exactly 100% due to rounding.

^a Percentages, means and number of participants are weighted for proportional representation by province.

^b 2.0% of participants reported being in grade 11, though only grade 9 and 10 classrooms were surveyed. It is likely these students were part of a grade 10/11 split classroom.

^c Per Canadian ethics requirements, Indigenous youth were included with the non-White group for subsequent analysis.

^d Reported by less than 30 participants. HBSC data requires a minimum of 30 participants per cell for reporting.

physical aggression; 27.8% (25.8, 30.0) for psychological aggression; and 17.5% (15.8, 19.0) for cyber aggression, while past 12-month ADV perpetration prevalence for those with dating experience was 7.3% (6.2, 9.0) for physical aggression; 9.3% (8.0, 11.0) for psychological aggression; and 7.8% (6.7, 9.0) for cyber aggression. For both males and females who reported any ADV (i.e., perpetration and/or victimization), victimization alone was the most common experience (59.1% and 64.4%, respectively). Comparatively, mutual aggression (i.e., the experience of both victimization and perpetration) was reported by 34.1% of cisgender male participants and 28.9% of cisgender female participants (no difference by gender ($X^2_2 = 4.34, p = .36$); the number of non-binary participants was too small to calculate mutual aggression information). In addition, 82.6% of individuals who reported any perpetration reported that this perpetration was part of mutual aggression in the relationship, whereas only 33.4% of individuals who reported any victimization reported that this victimization was part of mutual aggression in the relationship. These findings suggest two primary ADV patterns in this sample: those who report both using and experiencing ADV (i.e., mutual aggression), and those who report experiencing ADV (victimization) only.

Specific ADV victimization and perpetration prevalence rates by gender are shown in Figures 1 and 2, respectively. As shown in Figure 1, non-binary youth reported significantly higher rates of physical ($X^2_2 = 16.09, p = .028$) and cyber ($X^2_2 = 25.41, p = .0040$) ADV victimization as compared to their cisgender male and female peers. Both female and non-binary youth reported significantly higher psychological ADV victimization rates than their male peers ($X^2_2 = 71.18, p < .001$; Figure 1). As shown in Figure 2, non-binary youth reported significantly higher rates of all types of ADV perpetration (between 2.5–3.6 times higher) as compared to their cisgender male and female peers (physical ADV $X^2_2 = 41.11, p < .001$; psychological ADV $X^2_2 = 28.49, p = .0018$; cyber ADV $X^2_2 = 21.95, p = .0091$).

In terms of frequency, of those who experienced and/or used ADV in the past year, a similar number of youth reported

experiencing/using dating violence one time or two or more times (Table 2). The only significant differences were, as compared to cisgender males, for (a) psychological victimization, which cisgender female participants were most likely to experience two or more times ($X^2_2 = 90.41, p < .001$) and (b) cyber victimization, which non-binary participants were most likely to experience two or more times ($X^2 = 13.19, p = .045$).

Correlates

Comparing daters who experienced any ADV in the past year with those that did not (Table 3), we found significant differences by age, grade, gender, family structure, food insecurity, and family affluence. Specifically, youth who experienced ADV were more likely to be older, report a female or non-binary gender identity, live in a single parent/other household, and report food insecurity and lower family affluence, as compared to peers who were dating but did not experience ADV. There were no differences in ADV experience by race/ethnicity, immigration status, or BMI.

Comparing daters who used ADV in the past year with those that did not (Table 3), we found significant differences by age, gender, race/ethnicity, immigration status, food insecurity and family affluence. Specifically, youth who used ADV were more likely to be older, report a non-binary gender identity, come from a racialized group (i.e., non-White), be a first or second generation Canadian, and experience food insecurity and lower family affluence, as compared to peers who were dating but did not use ADV. There were no differences in use of ADV by grade, family structure, or BMI.

Discussion

In this nationally representative Canadian sample, we found that one in 3 youth reported any physical, psychological and/or cyber ADV victimization, and one in seven reported any physical, psychological and/or cyber ADV perpetration. For comparison, approximately one

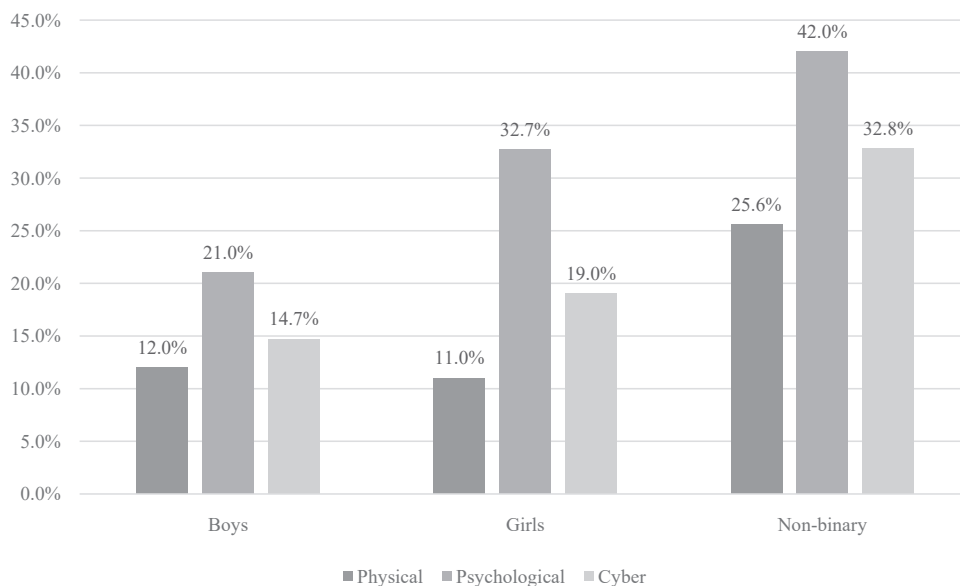


Figure 1. Victimization by Gender, Among Those with Dating Experience.

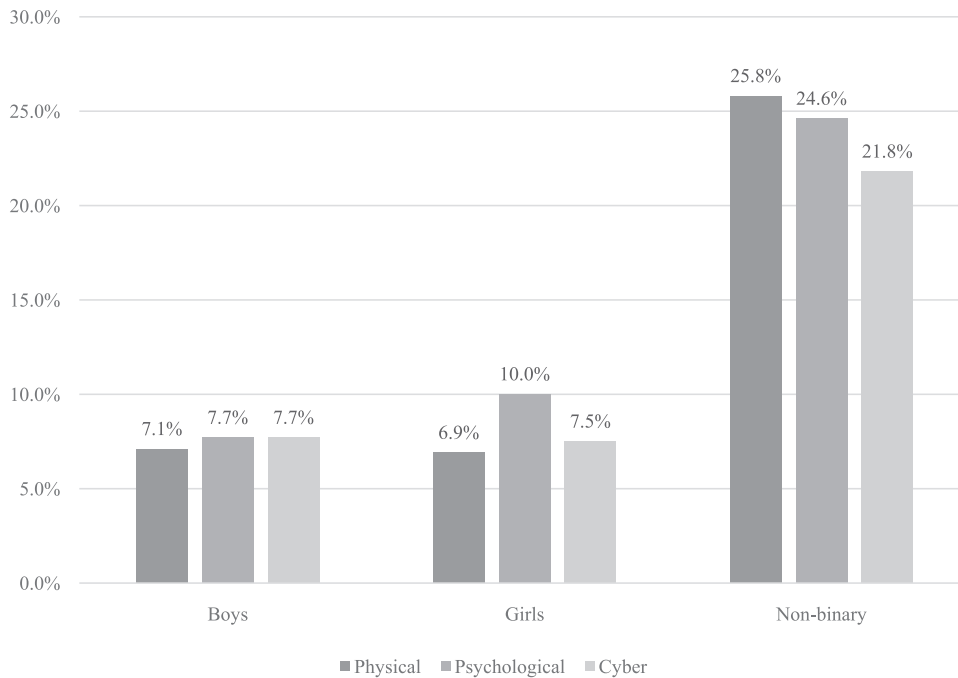


Figure 2. Perpetration by Gender, Among Those with Dating Experience.

in four Canadian youth report high-risk drinking behavior in the past 12 months; one in five have ever tried smoking; and one in 10 have used prescription drugs to get high in the past 12 months [34,35]. Thus, ADV victimization and perpetration are serious health issues for Canadian youth that require attention.

Looking at specific forms of ADV victimization (physical, psychological, cyber), prevalence for cisgender boys ranged from 12.0%–21.0%; for cisgender girls from 11.0%–32.7%; and for non-binary participants from 25.6%–42.0%. Non-binary youth reported significantly higher rates of all forms of ADV victimization than their cisgender peers, while cisgender females only reported significantly higher rates of psychological ADV victimization than their cisgender male peers. The most common form of victimization experienced for all gender groups was psychological (27.8%), followed by cyber (17.5%), and then physical (11.8%). A higher prevalence of psychological—as opposed to physical—ADV victimization aligns with past work in this area. For example, in a large sample from the United States (grades 7–12), Yahner and colleagues [36] found that 32.6% of their respondents reported psychological ADV victimization and 20.7% reported physical ADV victimization in the past 12 months. In

this same study, cyber ADV victimization was reported by 18.0% of participants, which is also very similar to our sample.

With regards to findings for non-binary youth, limited data on gender diverse youth are available, making comparisons difficult. In one of the largest studies to date, Johns et al. [37] used YRBS data from 10 states and nine large urban school districts. They found that transgender students had significantly higher rates of physical ADV victimization as compared to their cisgender male and female peers (26.4% vs. 8.7% and 5.4%, respectively). Comparatively, in our sample, non-binary youth reported a prevalence rate for physical ADV victimization of 25.6%, a rate two times higher than their cisgender peers.

Differences in physical victimization by gender have been a pressing topic in the ADV field for the past several decades. Many studies—including ours—find gender parity for physical ADV victimization (i.e., similar rates reported by males and females) [14]. However, U.S. national data shed important light on this issue, as data on physical ADV have been collected since 1999 as part of the YRBS [38]. In the most recent YRBS data collection (2019), 9.3% of females and 7.0% of males reported any physical ADV victimization in the past 12 months, representing a

Table 2
Adolescent dating violence frequency, by gender, % (n)

	Male (n = 1,603)			Female (n = 2,010)		
	None	1 time	2+ times	None	1 time	2+ times
Physical victimization	88.0% (1,403)	7.5% (119)	4.6% (73)	89.0% (1,782)	5.3% (106)	5.7% (114)
Psychological victimization	79.0% (1,256)	12.5% (199)	8.5% (135)	67.3% (1,349)	13.5% (271)	19.1% (383)
Cyber victimization	85.3% (1,352)	7.8% (123)	6.9% (109)	81.0% (1,619)	9.2% (183)	9.8% (196)
Physical perpetration	92.9% (1,469)	4.2% (66)	2.9% (47)	93.1% (1,863)	3.7% (73)	3.2% (64)
Psychological perpetration	92.3% (1,470)	3.9% (61)	3.9% (62)	90.0% (1,798)	6.1% (121)	4.0% (79)
Cyber perpetration	92.3% (1,465)	5.0% (79)	2.7% (43)	92.5% (1,850)	4.6% (92)	2.9% (58)

The number of non-binary participants was too small to report in these analyses, and so we report frequency data for cisgender male and female participants only. HBSC data requires a minimum of 30 participants per cell for reporting.

Table 3
Bivariate associations, by ADV victimization and perpetration^a

	Any ADV victimization (n = 1,309)	No ADV victimization (n = 2,398)	p-value ^b	Any ADV perpetration (n = 529)	No ADV perpetration (n = 3,166)	p-value ^h
Age, mean (SE)	15.43 (.026)	15.32 (.020)	.00073	15.51 (.043)	15.33 (.017)	<.001
Grade, % (n)			.0021 ^c			.37 ⁱ
Grade 9	32.8% (627)	67.2% (1,284)		13.6% (258)	86.4% (1,643)	
Grade 10	37.3% (642)	62.7% (1,079)		14.5% (249)	85.5% (1,470)	
Grade 11	53.3% (40)	46.7% (35)		-	-	
Gender, % (n)			<.001 ^d			.030 ^j
Male	29.7% (475)	70.3% (1,124)		13.0% (207)	87.0% (1,387)	
Female	39.1% (785)	60.9% (1,225)		15.0% (300)	85.0% (1,704)	
Non-binary	50.2% (38)	49.8% (38)		-	-	
Race/ethnicity, % (n)			.10 ^e			.00032 ^k
White	34.0% (898)	66.0% (1,743)		12.4% (327)	87.6% (2,308)	
Non-white	38.1% (394)	61.9% (641)		19.0% (195)	81.0% (833)	
Family structure, % (n)			.011 ^f			.34 ^l
Two parent	34.0% (979)	66.0% (1,899)		13.9% (399)	86.1% (2,471)	
Single parent	40.3% (272)	59.7% (404)		13.9% (94)	86.1% (579)	
Other	46.9% (42)	53.1% (47)		-	-	
Immigration status, % (n)			.19 ^g			<.001 ^m
First generation	38.6% (168)	61.4% (267)		23.3% (102)	76.7% (333)	
Second generation	37.7% (132)	62.3% (219)		16.5% (58)	83.5% (292)	
Third generation	34.5% (1,000)	65.5% (1,898)		12.6% (364)	87.4% (2,524)	
Food insecurity, % (n)			<.001 ^h			<.001
Yes	51.3% (350)	48.7% (331)		23.0% (156)	77.0% (521)	
No	31.6% (946)	68.4% (2,050)		12.2% (365)	87.8% (2,625)	
Body Mass Index (BMI), % (n)			.16			.41
< 2 SD above the mean	35.1% (1,000)	64.9% (1,847)		13.9% (396)	86.1% (2,449)	
≥ 2 SD above the mean	28.5% (55)	71.5% (138)		-	-	
Family affluence, mean, SE	7.87 (.11)	8.27 (.082)	.0034	7.81 (.17)	8.18 (.071)	.0497

^a Percentages, means and number of participants are weighted for proportional representation by province. “-” indicates the number of participants was too small to report. HBSC data requires a minimum of 30 participants per cell for reporting.

^b *p*-values are from weighted bivariate tests comparing participants who experienced ADV with participants who did not experience ADV.

^c For bivariate analyses, grade 9 participants were compared to participants in grades 10/11. Participants in grade 10/11 were more likely to experience ADV than participants in grade 9.

^d Non-binary and cisgender female participants were more likely to experience ADV as compared to cisgender males.

^e For bivariate analyses, White participants were compared to racialized participants (non-White, multiracial or Indigenous).

^f For bivariate analysis, participants in two-parent households were compared to participants in single/other parent households. Participants in single parent/other households were more likely to experience ADV than participants in two-parent households.

^g For bivariate analysis, third-generation participants were compared to first generation/second generation participants.

^h *p*-values are from weighted bivariate tests comparing participants who used ADV with participants who did not use ADV.

ⁱ For bivariate analyses, grade 9 participants were compared to participants in grades 10/11.

^j Non-binary participants were more likely to use ADV as compared to cisgender females and males.

^k For bivariate analyses, White participants were compared to racialized participants (non-White, multiracial or Indigenous). Racialized participants were more likely to use ADV than White participants.

^l For bivariate analysis, participants in two-parent households were compared to participants in single/other parent households.

^m For bivariate analysis, third-generation participants were compared to first generation/second generation participants. First generation/second generation participants were more likely to use ADV than third generation participants.

significant difference in victimization by gender [27]. However, this gender difference was only present following a question change. Specifically, starting in 2013, the YRBS physical ADV question asks if the individual has “been physically hurt on purpose (counting such things as being hit, slammed into something, or injured with an object or weapon) by someone they were dating or going out with” in the past 12 months. Conversely, from 1999 to 2011, the YRBS asked if the individual has been “hit, slapped or physically hurt on purpose by a boyfriend or girlfriend” in the past 12 months, consistently finding equivalent victimization rates between males and females (~10%) [38]. Similar to the old YRBS question, the HBSC survey asked if a dating partner had “physically hurt you on purpose” in the past 12 months. Thus, the lower threshold of physical violence severity indicated by the HBSC question may explain the gender parity for physical ADV victimization in our sample. Finally, we note that while the prevalence of physical ADV victimization did not differ for cisgender boys and girls in

our sample, this does not mean the experience and impacts of this violence were the same (e.g., potential for injury) [39]. The HBSC also did not collect data on sexual ADV victimization, which is more commonly experienced by girls, and the inclusion of which can thus help illuminate nuances in apparent gender parity [12].

In terms of perpetration (physical, psychological, cyber), prevalence for cisgender boys ranged from 7.1%–7.7%; for cisgender girls from 6.9%–10.0%; and for non-binary participants from 21.8%–25.8%. Non-binary participants reported significantly higher rates of all forms of perpetration as compared to their cisgender peers. As less information has been collected on ADV perpetration (as many school divisions do not allow researchers to ask this question), there are less comparative data available. Perpetration rates in our sample also did not follow a consistent pattern by gender (as compared to victimization rates, which did). Overall, however, perpetration prevalence was much lower than victimization prevalence (7.3% physical ADV, 9.3%

psychological ADV, 7.8% cyber ADV), and also lower than that reported in the Yahner et al. study, where overall perpetration rates were 14.0% for physical ADV, 17.6% for psychological ADV, and 8.1% for cyber ADV [36].

This difference may be because perpetration increases with age, and individuals in the Yahner et al. [36] study were somewhat older than in our sample. For example, exploring trajectories of physical and psychological perpetration from ages 13–19, Foshee et al. [40] found that moderate physical ADV perpetration peaked at age 17.1, severe physical ADV perpetration at 16.3, and that psychological ADV perpetration continued increasing through age 19. As the average age of our sample was 15.35, it is probable that perpetration prevalence will continue to increase among these youth. However, it is also important to note that this pattern may have resulted from an underreporting of perpetration as compared to victimization (i.e., social desirability bias).

Looking at correlates of ADV, we found that older students, students reporting a female or non-binary gender identity, those living in a single parent/other household, and those reporting food insecurity and lower family affluence reported more ADV victimization. For ADV perpetration, youth who were older, reported a non-binary gender identity, came from a racialized group (i.e., non-White), were a first or second generation Canadian, and experienced food insecurity and lower family affluence reported more use of ADV. For both victimization and perpetration, these data highlight the role of larger structural marginalization in predicting risk for violence, as hypothesized (We also explored BMI because of the discrimination and stigma people in larger bodies face, but did not find that BMI was a significant predictor of victimization or perpetration in this sample.). Specifically, a social determinants of health perspective highlights that youth living in poverty (i.e., food insecurity and low family affluence), and those facing transphobia (i.e., non-binary participants), sexism (i.e., female participants), racism (i.e., racialized participants) and xenophobia (i.e., first and second generation Canadian participants) are at greater risk for violence victimization, including ADV [8,19]. For perpetration, minority stress theory suggests that the discrimination experienced by socially marginalized groups leads to an increased experience of both general and unique forms of stress, and that this stress can lead to poor well-being [24]. Several studies have found that both general and minority stress are related to dating violence perpetration in college students [25]. However, more research is needed to explore this hypothesis as it applies to ADV perpetration with younger adolescents.

Limitations

Although this is nationally representative study, and while the race/ethnicity of our sample approximated that of Canada, we note that Indigenous identity was underrepresented (3.3% in our sample as compared to 4.9% in the population) [33]. In addition, there were fewer males in our dating sample than among 15–19 years olds nationally (43.4% in our sample as compared to 51.2% nationally) [33]. Second, our study includes many of the common limitations in current ADV measurement [30]. All measures were self-report, and as this was a large survey, only one question for each form of ADV was asked, which likely led to missing some individuals who experienced types of ADV not assessed. Differences between prevalence in our and prior studies may be due to such measurement differences. Due

to the broad range of behaviors they assessed, these questions also likely captured a lower threshold of severity. We did not include questions related to sexual victimization or perpetration, which limits our ability to assess ADV patterns by gender. In addition, the ADV questions focused on specific behaviours, and not the context within which these behaviours occurred. It is difficult to fully understand mutual aggression experiences without this contextual information [30]. Finally, this is a cross-sectional study and consequently, the correlates should be interpreted as associations only, and not causal predictors. As our second aim was exploratory, we used bivariate statistics, and so covariates were not accounted for in analyses; in future work, we will pursue multivariate, person-centered analyses that more deeply explores these correlates, as well as their intersections.

Implications

Adolescent dating violence affects a substantial minority of Canadian youth. Given the adverse health outcomes for individuals involved in ADV, prevention of this experience is critical. The correlates of ADV found in our data suggest that preventive approaches need to include a focus on root causes of violence (e.g., poverty, racism).

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