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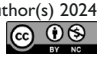
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Cross-Sectional and Longitudinal Associations Between Pornography Use and Dating Violence Victimization: Are There Risks for Teenagers?

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Abstract

Dating violence victimization (DVV) is a prevalent public health problem with harmful consequences among adolescents. Pornography use has been identified among the factors associated with DVV. However, most studies have relied on cross-sectional designs, limiting the ability to determine temporal relationships between these variables. The present study assessed bidirectional longitudinal associations between pornography use and DVV (psychological, physical, and sexual), also examining cross-sectional associations and gender differences. Participants' self-report data from two assessments of a longitudinal study were used. The sample consisted of 1,556 teenagers (M_{age} = 14.55 years, SD_{age} = .630; 51.5% were girls) having reported

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an intimate relationship in the past year at the first and/or second time point (T1/T2). Whereas some cross-sectional associations between pornography use and DVV were observed at T1, results from the autoregressive cross-lagged model revealed no significant longitudinal association between pornography use and the three forms of DVV, regardless of gender. Thus, pornography use may not represent a significant risk factor over time for DVV in adolescents. These findings provide additional insights concerning the associations between pornography use and DVV and suggest that emphasis should perhaps be placed on other variables in the study of risk factors for DVV. Still, although modest, transversal links support the importance of interventions that promote healthy intimate relationships in adolescence and education about pornography use.

Keywords
intimate violence, pornography, sexually explicit material, adolescent health

Introduction

According to the results of a large survey among 8,194 Canadian teenagers, nearly two out of three girls (62.7%) and one out of two boys (49.5%) reported at least one experience of dating violence victimization (DVV) in the past 12 months (Hébert et al., 2017). Given its numerous adverse outcomes (Banyard & Cross, 2008; Hébert et al., 2019), as well as data indicating that a DVV experience increases the risk of re-victimization in adulthood (Exner-Cortens et al., 2013; Gómez, 2011), it is important to understand the factors that can explain the onset of DVV in adolescents' romantic relationships. Among the factors to consider, pornography use has been identified (Raiford et al., 2007; Rostad et al., 2019; Rothman & Adhia, 2016). Explanatory hypotheses related to sexual scripts and self-objectification theories suggest that pornography use may have an impact on the occurrence of DVV. Since part of the studies to date were cross-sectional (Rostad et al., 2019; Rothman & Adhia, 2016), it is not possible to know whether links are bidirectional, especially since the only longitudinal studies examined pornography use as a predictor of DVV, not the reverse (Jongsma & Timmons Fritz, 2022; Raiford et al., 2007). Moreover, the associations between pornography use and the different forms of DVV (psychological, physical, and sexual) remain unknown. In the current era that is marked by the presence of digital technologies and the accessibility of pornographic material for youth (Smaniotto & Melchiorre, 2018), it is important to continue exploring the

possible impacts pornography use may have on DVV over time. Thus, this study aimed to examine the longitudinal and bidirectional associations between pornography use and greater DVV (psychological, physical, and sexual), also examining cross-sectional associations and testing for gender differences, among a large sample of adolescents from diverse socioeconomic backgrounds.

Dating Violence

According to the World Health Organization, intimate partner violence is defined as any behavior that causes psychological, physical, or sexual harm or suffering to someone in an intimate relationship (Heise & Garcia-Moreno, 2002). Dating violence (DV) refers to a form of intimate partner violence between dating partners who are 10 and 24 years of age (Vagi et al., 2013) and includes physical, psychological, and sexual violence. Prevalence rates appear to be similar across genders, except for sexual violence victimization, which is more prevalent among girls (Leen et al., 2013). However, results from a large Canadian population-based study suggest that girls experienced more violence than boys in the last 12 months, regardless of form, with sexual violence showing the largest gender differences (20.2% of girls and 5.7% of boys experienced it; Hébert et al., 2017).

Pornography Use

Many factors associated with an increased likelihood of DVV have been identified, some of which are related to youth life habits. For example, a study indicated that marijuana use, going to parties where there is alcohol and sexual activity, in addition to being sexually active in adolescence, increased the risk of DVV in the future (East & Hokoda, 2015). Other studies have also shown that pornography use is associated with DVV in adolescents (Raiford et al., 2007; Rostad et al., 2019; Rothman & Adhia, 2016) and adults (Jongsma & Timmons Fritz, 2022). Pornography use refers to intentionally looking at or listening to pictures or videos of nude individuals, or pictures or videos in which people are having sexual activities (Kohut et al., 2018, 2020). Smaniotto and Melchiorre (2018) argue that the Internet now allows teenagers to easily access pornographic material and mitigates the transgressive aspect of it, which underlines the importance of focusing more on this phenomenon.

As suggested by Harsey et al. (2021), sexual scripts and self-objectification theories could explain associations between pornography use and violence victimization (Fredrickson et al., 1998; Simon & Gagnon, 1986).

According to Frith and Kitzinger (2001), the central notion of the sexual scripts framework (Simon & Gagnon, 1986) is "the idea that sexuality is *learned* from culturally available messages that define what 'counts' as sex, how to recognize sexual situations, and what to do in sexual encounters" (p. 210). Greater pornography use has been associated with greater commitment to sexual behaviors consistent with the sexual scripts presented in pornography, or having an interest in trying them (Bridges et al., 2016). It is possible that due to its influence on sexual scripts, pornography—which often exposes violent sexual stereotypes (Bridges et al., 2010; Vera-Gray et al., 2021)—leads adolescents to accept and normalize the occurrence of intimate partner violence.

Objectification theory states that people tend to measure their worth by their physical appearance, which is compared to sexually objectifying and unrealistic standards of beauty of our culture (Fredrickson et al., 1998, 2011). Moreover, higher self-objectification has been shown to be associated with sexualizing media use (Karsay et al., 2018) and greater sexual victimization (Franz et al., 2016). Therefore, pornography use could be related to higher self-objectification, which in turn would be associated with sexual victimization, and possibly DVV.

Although prevalence rates differ greatly, specifically due to the diversity of methodologies used and the explosion of the Internet in recent decades (Peter & Valkenburg, 2016), a study conducted in six European countries among 10,930 adolescents aged 14 to 17 years reported that 76.8% of boys watched pornography in the past 12 months (40% at least once a week), compared to 42.9% of girls (8.9% at least once a week; Andrie et al., 2021). In addition, boys tend to use pornography for the first time at a younger age, around 11 to 13 years, compared to girls, who start around 13 to 14 years (Crabbe et al., 2024; Marshall & Miller, 2024; Sinković et al., 2013).

Research on pornography use points to both positive and negative outcomes for youth. In particular, pornography use could represent a source of information about sexuality and a means of stimulating sexual arousal (Bőthe et al., 2019; Löfgren-Mårtenson & Månsson, 2010). Pornography has also been identified as the most helpful source of information about how to have sex for young adults (18–24 years; Rothman et al., 2021). On the other hand, pornography use in adolescence (Farré et al., 2020) or early exposure (Sinković et al., 2013) is associated with a greater tendency to engage in high-risk sexual behaviors, and might also be associated with more DVV. We can hypothesize that youths may associate this content with being representative of reality and reproduce or accept these behaviors with their romantic partner, although many are aware of the differences between pornographic content and reality (Puglia & Glowacz, 2015).

Pornography Use and DVV

Associations between pornography use and DVV have mainly been studied using cross-sectional designs, limiting our knowledge concerning the potential long-term outcomes of pornography use. Still, although the results of Herbitter et al. (2022) did not find a significant association between exposure to violent pornography and DVV among a small sample of girls identifying as a sexual minority, most of the limited studies on this topic suggest that pornography is associated with DVV. In a sample of 1,694 American adolescents, violent pornography use was associated with reporting physical and sexual DVV (but not with threatening DVV) among boys; it was not significant among girls (Rostad et al., 2019). In a sample of 72 American teens aged 16 to 17, mainly African-American or Hispanic individuals from disadvantaged economic backgrounds, DV victims watched pornography more frequently than non-victims (Rothman & Adhia, 2016). In a sample of 132 different-sex couple dyads aged 17 to 54, frequent pornography use at baseline in men (but not in women) was associated with an increased intimate partner violence perpetration and victimization in both men and women 4 months later (Jongsma & Timmons Fritz, 2022). Finally, the results of a longitudinal study conducted among 522 African-American girls aged 14 to 18 indicated that adolescents who reported watching X-rated movies in the past 3 months were twice as likely to report DVV (verbal or physical; both forms were pooled together and sexual DVV was not examined) in the following year, compared to those who had not watched X-rated movies (Raiford et al., 2007). However, although this latter study was longitudinal, it did not assess bidirectional links and the authors point out that the results may apply only to African-American adolescent girls who live in a high-risk social environment. In addition, most of the above studies did not examine the different forms of DVV in relation to pornography use, which limits our understanding of the associations between pornography use and each form of DVV over time.

Other cross-sectional studies have found associations between pornography use and sexual victimization (e.g., harassment, sexual coercion, and sexual assault), in particular among adolescent girls (Bekele et al., 2011; Bonino et al., 2006). Another study also found that women who were unintentionally exposed to Internet pornography before the age of 14 reported more childhood sexual abuse, sexual abuse in adulthood, and other forms of sexual victimization than those who were exposed at age 14 and older (Harsey et al., 2021). This last study also showed that women who had never viewed Internet pornography reported less interpersonal sexual objectification than women who had ever watched it intentionally at a

younger age. However, these studies focused on sexual victimization exclusively, which limits the application of their findings to other forms of violence or to DVV specifically.

The Present Study

Although the aforementioned studies showed associations between pornography use and the experience of different forms of violence victimization, including DVV, among adolescents from different countries and economic backgrounds, the majority relied on a cross-sectional design, focused specifically on women, used relatively small samples and/or studied samples of youth from high-risk geographical locations. Therefore, the present study aimed to address these gaps by examining longitudinal and bidirectional associations between pornography use and the experience of psychological, physical, and sexual DVV among adolescents, taking into account cross-sectional associations. Moreover, we assessed two modalities of pornography use (i.e., frequency of viewing in the past 3 months, in addition to the age of first pornography use), improving upon what has been measured in previous studies. Our overarching hypothesis was that a younger first viewing age and a higher frequency of viewing during the past 3 months in the first data collection wave (T1) would be associated with each form of DVV at the first and second data collection waves (T2). Considering gender differences in pornography use (Andrie et al., 2021; Bőthe, Vaillancourt-Morel, et al., 2020; Peter & Valkenburg, 2016) and DV experience (Hébert et al., 2017), we examined whether the associations differed according to gender. Moreover, since pornography use is often accompanied by masturbation and the importance of excluding the potential role of this variable when studying pornography use has recently been highlighted (Perry, 2020; Prause, 2019), we also controlled for the frequency of masturbation. Finally, we controlled for COVID-19 status (i.e., participants who answered the questionnaire during the pandemic were identified to rule out the potential effects of the pandemic on our results; Bőthe et al., 2022).

Method

Participants

After excluding participants who did not complete the DVV scale at T1 and/or T2, and failure to pair protocols between T1 and T2, the sample for the present study included 1,556 students at T1 ($M_{age} = 14.55$ years, $SD = 0.63$,

ranging from 14 to 17 years) and 900 students (57.8% of T1) at T2 (M_{age} = 15.46 years, SD = 0.58, ranging from 14 to 18 years).

At T1, 51.5% of participants reported being a girl (n = 802), 48.0% a boy (n = 747), and 0.5% (n = 7) reported being nonbinary, gender fluid, or "other." The majority identified with the Quebecois culture. Most adolescents reported living with both parents (65.9%; n = 1,026) and that their mothers or parent 1 (44.0%; n = 683), and their fathers or parent 2 (32.3%; n = 501) had completed university.

Procedure

For this study, we leveraged data from the first two time points of a larger longitudinal study examining adolescents' sexuality, which began in 2018 to 2019. Data collection was carried out in classes during school hours. Electronic tablets were distributed to students so that they could answer the questionnaires, under the supervision of research assistants. A $10 gift card was offered to all participating students as compensation. The questionnaires were completed anonymously using the *Qualtrics Research Suite*. For T2, due to the school closures related to the COVID-19 pandemic, schools that had not yet been visited during school hours when the pandemic broke out received the survey by email. To match questionnaires between T1 and T2, an identification code was used as an anonymous identifier (Ripper et al., 2017; Yurek et al., 2008). This study was approved by two Research Ethics Boards (Université du Québec à Chicoutimi and Université de Montréal).

The adolescents surveyed were from public and private high schools, French and English, located in the Quebec province of Canada. Among the 50 schools from diverse socio-economic backgrounds that were contacted, 23 agreed to participate, 16 did not respond to emails or calls, and 11 refused to participate. Fourteen of the participating schools were located in remote areas and nine were in urban areas.

To be included in the study, adolescents had to be in ninth grade and at least 14 years of age at T1. At T1, among the 3,055 potential participants, four were excluded since they were 13 years old, four because they had inconsistent answers, and 143 because they failed at least two of the three attention questions. Questionnaires from 2,904 teenagers were retained for T1. At T2, the students who were then in grade 10 answered the questionnaires. Among the 2,001 participants who completed the questionnaires, 27 were excluded because they failed at least two of the three attention questions and two had inconsistent answers. Thus, 1,972 participants completed T2, with a retention rate of 67.9%. Among those participants, only those who had been in a romantic relationship in the past 12 months answered the DVV questionnaire

at T1 (45.9% of the sample) and/or T2 (48.8% of the sample) and were included in the analyses, as participants who completed that scale are the ones who were in a romantic relationship at the time of the data collection or had been in the last 12 months.

Measures

Sociodemographic Characteristics. Sociodemographic information (age, gender, family situation, and culture) was collected using a questionnaire created by the research team.

Romantic Relationships. Items from one of our prior studies with adolescents (Hébert et al., 2011), as well as other investigator-derived questions, were used to collect information about the students' romantic relationships. A definition for "going out with someone" or dating was provided: "Going out with someone means you are dating the person. This relationship may have lasted only a few days or many weeks, months, or years." Adolescents who had been in a romantic relationship in the past 12 months were then asked to answer questions about DVV.

Dating Violence Victimization. To measure the experience of three forms of DVV (psychological, physical, and sexual) in the last 12 months, 10 items regarding victimization from the *Conflict in Adolescent Dating Relationships Inventory short form (CADRI-S)* (Fernandez-Gonzalez et al., 2012) were used, which is a short version of the CADRI (Wolfe et al., 2001). Using a four-point Likert scale (*Never*, *Seldom:* 1–2 *times*, *Sometimes:* 3–5 *times*, *and Often:* 6 *times or more*), teenagers indicated the number of times they had experienced the situations listed during a conflict or argument with a dating partner (present or past) in the last 12 months (e.g., physical DVV [2 items] "my partner slapped or pulled my hair"; psychological DVV [6 items] "My partner insulted me with put-downs"; sexual DVV [2 items] "My partner touched me sexually when I didn't want them to"). For each type of DVV, a higher score indicates a higher level of DVV experienced. Cronbach's alphas ranged from .64 to .77 for the two data collection waves for the three forms of DVV.

Pornography Use. Adolescents were instructed to read a definition (Kohut et al., 2018, 2020) before answering the questions regarding pornography: "For the following questions, the term 'pornography' is used to refer to: intentionally looking at or listening to: (1) pictures or videos of nude individuals, (2) picture or videos in which people are having sexual activities."

They were then asked to answer an item about lifetime pornography use: "Have you ever watched pornography in your life?" (0 = No; 1 = Yes). If the participant answered "Yes," they were asked to report their age when they first used pornography ("How old were you the first time you watched pornography?"). We computed a new variable using answers from T1 and T2, that is, that for those who started watching pornography at T2, their age of first used pornography was merged into the T1 variable. Moreover, based on previous studies (Carroll et al., 2017; Kohut et al., 2018; Maas et al., 2018), the following question was asked to evaluate the frequency of pornography use: "On average in the last 3 months, how many times did you watch pornography?" Youth were asked to respond using an eight-point Likert-type scale ranging from 0 = Never to 7 = Many times per day. We computed a new pornography use frequency variable for T1 and for T2, based on the answers to the lifetime pornography use and frequency of pornography use variables (Bőthe et al., 2022; Bőthe, Vaillancourt-Morel, et al., 2021). The answers of those adolescents who indicated that they had not previously used pornography (i.e., answering "No" to the lifetime pornography use question; T1: $n = 421$, 27.1%; T2: $n = 179$, 20.0%) were recoded to represent "Never" in the pornography use frequency question.

Masturbation Frequency. Participants read a definition before answering questions about masturbation: "For the following questions, 'masturbation' refers to seeking sexual pleasure by self-stimulation of the genitals (i.e., by oneself), either by manual caresses, sex toys, rubbing, pressure, or any other technique. Masturbation may or may not lead to an orgasm." Then, students were asked about lifetime masturbation: "Do you masturbate?" (0 = No; 1 = Yes). For those who answered "Yes," the following question was asked to assess the frequency of masturbation in the past 3 months: "On average, over the past 3 months, how often did you masturbate?" An eight-point scale was used to answer the question (1 = Not once in the past 3 months; 8 = More than once a day). A new masturbation frequency score was computed, based on the lifetime masturbation and frequency of masturbation variables (Bőthe et al., 2022; Bőthe, Vaillancourt-Morel, et al., 2021). The answers of those adolescents who indicated that they had not masturbated before (i.e., answering "No" to the lifetime masturbation question T2: $n = 164$, 18.3%) were recoded to represent "Never" in the masturbation frequency question. Only masturbation frequency at T2 was used as a control variable as this question was only asked in T2.

COVID-19 Status. To control for the COVID-19 status in the analysis, participants who answered the questionnaire during the pandemic were coded as 1, and those who completed it before (March 2020) were coded as 0.

Statistical Analysis

Descriptive statistics were computed using SPSS 27 (IBM Corp., Armonk, NY, USA). Using a sequential procedure, autoregressive cross-lagged models were performed in Mplus (Version 8.8; Muthen and Muthen, 1998–2017) to test the hypothesized associations.

We started with a model (Model 1) examining the associations between the age at first pornography use, T1 and T2 pornography use frequency, and DV without control variables in the total sample (Girouard et al., 2021; Paquette et al., 2022). Next, we tested the same model with the control variables (Model 2). Then, we examined whether this model varied based on gender (i.e., boys vs. girls[1]) using multi-group analysis (Model 3). Lastly, we put forth this difference test and the associations between the variables were constrained to be equal across the groups (Model 4). When comparing Models 3 and 4 (i.e., unconstrained and constrained models), changes in the Chi-square, CFI, TLI, and RMSEA values were examined. A significant corrected Chi-square difference test, significant decreases in CFI and TLI ($\Delta CFI \leq .010$; $\Delta TLI \leq .010$) and significant increases in RMSEA ($\Delta RMSEA \leq .015$; Bőthe, Tóth-Király, et al., 2021; Chen, 2007; Cheung & Rensvold, 2002; Girouard et al., 2021) indicated whether the constrained and unconstrained models differed significantly (i.e., whether the associations differed significantly between boys and girls).

All models were estimated using robust-maximum-likelihood (MLR) due to the non-normality of the data. As the tested models were fully saturated, the commonly used goodness-of-fit indices were: Tucker–Lewis index (TLI) = 1.00, Comparative Fit Index (CFI) = 1, and Root-Mean-Square Error of Approximation (RMSEA) = 0 (Browne & Cudeck, 1993; Marsh et al., 2005; Schermelleh-Engel et al., 2003). Following prior guidelines (Newman, 2014), the full information maximum likelihood method was used to handle missing data (ranging between 0% to 14.3 at Time 1 [and 29.0% for age at first pornography use], and between 43.1% and 55.7% at Time 2—these higher percentages are mainly due to the school closures during the COVID-19 pandemic).

Results

Descriptive and Correlational Results

Overall, 64.6% of adolescents at T1, and 71.9% at T2 reported pornography use. In addition, more than 40% of participants who reported dating in the past 12 months experienced at least one form of DV (psychological, sexual,

Table 1. Descriptive Statistics of Pornography and Dating Violence Victimization by Gender.

Variables	Boys ($n = 645$–744), *M* (*SD*)/%	Girls ($n = 422$–795), *M* (*SD*)/%	Nonbinary ($n = 5$–7), *M* (*SD*)/%
Age at first pornography use[a]	11.77 (1.72)	12.91 (1.69)	10.80 (1.64)
T1 pornography use frequency	3.91 (1.94)	1.05 (1.56)	1.43 (1.40)
T1 psychological DVV (%)	36.0	41.6	42.9
T1 physical DVV (%)	7.3	3.8	28.6
T1 sexual DVV (%)	2.9	9.5	0.0

[a]Only adolescents who had watched pornography before reported their age at pornography use (boys = 705; girls = 526; nonbinary = 5).

or physical violence) at T1 and T2 (see Table 1 for descriptive statistics by gender identity). Descriptive statistics and Pearson correlations between pornography use frequency, age at first pornography use, DVV, and control variables are reported in Table 2 for the total sample. Some of the associations between age at first pornography use, pornography use frequency, and DVV were significant, though the magnitudes of the associations were small (r ranging from .07 to .11, $ps < .05$).

Longitudinal and Cross-Sectional Associations Between Age at First pornography Use, Pornography Use Frequency, and DVV

We examined the associations between pornography use frequency, age at first use, and DVV (Model 1). Then, we added the control variables (Model 2). Next, we examined the hypothesized associations between the age at first pornography use, pornography use frequency, and DVV factors (i.e., psychological, physical, and sexual violence) in groups of boys and girls. We compared the constrained model (Model 4) to the unconstrained model (Model 3). When comparing Models 3 and 4, the corrected chi-square difference test was not significant ($\Delta\chi^2 = 7.170$, $p = .619$). These results suggest that associations between DVV factors, age at first pornography use, and pornography use frequency did not differ significantly across boys and girls. Therefore, following the principle of parsimony, the results of Model 2 (i.e., total sample with control variables) should be interpreted (see Figure 1; see Table S1 in the online supplementary materials presenting all the effects). This model included all adolescents, including nonbinary participants.

Table 2. Descriptive Statistics and Correlations Between Age at First Pornography Use, Pornography Use Frequency, Forms of DVV, and Control Variables.

Variables	*M* (*SD*)	Range	1	2	3	4	5	6	7	8	9	10	11
1. Age at first pornography use[a]	12.08 (1.69)	6–17	—										
2. T1 pornography use frequency[b]	2.43 (2.26)	0–7	−.40***	—									
3. T2 pornography use frequency[b]	2.71 (2.20)	0–7	−.34***	.72***	—								
4. T1 psychological DVV[c]	0.15 (0.29)	0–2.50	−.11***	.04	.02	—							
5. T2 psychological DVV[c]	0.18 (0.32)	0–2.50	−.08*	.00	.02	.36***	—						
6. T1 physical DVV[c]	0.05 (0.26)	0–3	−.07*	.08**	.01	.45***	.26***	—					
7. T2 physical DVV[c]	0.04 (0.23)	0–3	−.11**	.04	.07	.17***	.50***	.32***	—				
8. T1 sexual DVV[c]	0.05 (0.24)	0–3	−.07*	.00	.02	.42***	.13**	.24***	.11*	—			
9. T2 sexual DVV[c]	0.06 (0.27)	0–3	−.00	−.10**	−.06	.23***	.36***	.37***	.39***	.34***	—		
10. T2 masturbation frequency[d]	4.68 (2.21)	1–8	−.22***	.59***	.73***	.01	−.01	−.01	.04	.02	−.07	—	
11. COVID-19 status[e]	0.41 (0.49)	0–1	.09*	−.07*	−.06	−.02	.01	.05	−.04	.02	.04	.02	—

[a]Only adolescents who had watched pornography before reported their age at pornography use ($n = 1,258$).
[b]0 = never, 1 = less than 1 time per month, 2 = 1 time per month, 3 = 2–3 times per month, 4 = 1 time per week, 5 = many times per week, 6 = 1 time per day, 7 = many times per day.
[c]0 = never, 1 = seldom (1–2 times), 2 = sometimes (3–5 times), 3 = often (6 times or more).
[d]1 = not once in the past 3 months, 2 = less than once a month, 3 = once a month, 4 = 2–3 times a month, 5 = once a week, 6 = several times a week, 7 = once a day, 8 = more than once a day.
[e]0 = data collection before COVID, 1 = data collection after COVID. *M* = mean; *SD* = standard deviation; T1 = Time 1 data collection; T2 = Time 2 data collection; DVV = dating violence victimization.
*$p < .05$. **$p < .01$. ***$p < .001$.

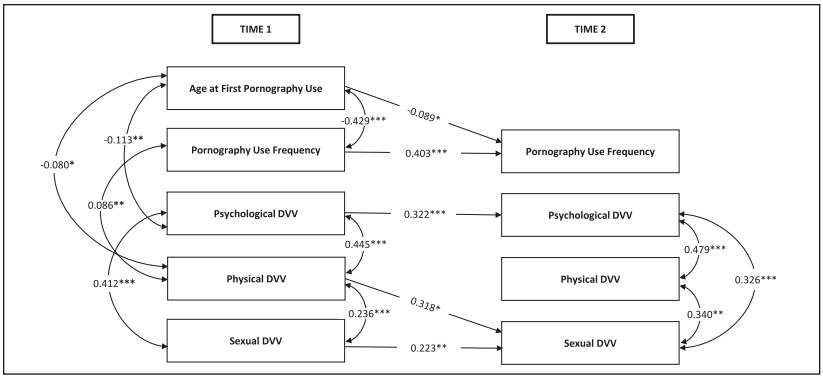

Figure 1. Autoregressive cross-lagged analysis of dating violence victimization, age at first pornography use, and pornography use frequency.

Note. This figure demonstrates the associations between pornography use and dating violence victimization, controlling for masturbation frequency and COVID-19 status. Significant associations are depicted with solid black arrows. Coefficients are standardized regression coefficients.

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

In this final model, age at first pornography use was negatively associated with psychological and physical DVV at T1. Also, pornography use frequency at T1 was positively associated with physical DVV at T1. No other cross-sectional associations between pornography and DVV were found. The age at first pornography use and pornography use frequency at T1 were not significantly associated with DVV at T2 (all $ps > .060$). Moreover, prior higher levels of DVV at T1 were not significantly related to pornography use frequency at T2 (all $ps > .198$). In summary, no significant longitudinal associations were observed between DVV, age at first pornography use, and pornography use frequency over 1 year (T1–T2).

Discussion

Pornography use has been identified as being associated with a greater risk of DVV, mostly in cross-sectional studies (Rostad et al., 2019; Rothman & Adhia, 2016). The present study aimed to expand this knowledge by examining longitudinal and bidirectional associations between pornography use characteristics and experiencing DVV in a large sample of adolescents, also considering potential gender differences, in addition to controlling for masturbation frequency and COVID-19 status. Overall, although some cross-sectional associations (of low magnitude) were found, no significant

longitudinal associations or gender differences were observed between adolescents' pornography use and DVV.

The hypotheses that pornography use frequency and younger age at first use would be associated positively with DVV a year later were not supported. These results are in contrast with those of Raiford et al. (2007), who used a longitudinal design with a one-year follow-up and identified viewing X-rated movies as a predictor of DVV among 522 African-American girls aged 14 to 18. Our results also differ from those of Jongsma and Timmons Fritz (2022), who found that a higher frequency of pornography use predicted higher intimate partner violence perpetration and victimization in men 4 months later. In our study, the reverse associations were also not significant (DVV forms at T1 were not associated with pornography use at T2). Therefore, we only found some cross-sectional associations at T1 between younger age at first use of pornography and physical and psychological DVV, and between pornography use frequency and physical DVV. The latter finding is consistent with previous studies (Rostad et al., 2019; Rothman & Adhia, 2016), although Rostad et al. (2019) focused on having watched violent pornography. Among the few studies on this topic, only one did not find significant cross-sectional associations between exposure to violent pornography and DVV among a small sample of adolescent girls from sexual minorities (Herbitter et al., 2022).

Although our design precludes causality inferences, it is possible that the associations between frequency of pornography viewing, its use at a younger age, and DVV are short-term rather than long-term, which would explain why other cross-sectional studies have found links (Rostad et al., 2019; Rothman & Adhia, 2016). It may also be that the associations between pornography and DVV occur in younger adolescents (compared to older ones). In light of the theories about the links between pornography use and DVV, pornography use could be related to sexual scripts in the short term (Bridges et al., 2016) and might increase self-objectification (Karsay et al., 2018), which in turn would be associated with DVV. As adolescents grow up, their critical thinking in terms of pornography may be sufficiently developed to enable them to find healthier and more realistic representations of themselves and their sexuality. For example, results from Puglia and Glowacz (2015) indicate that users and non-users of pornography identically reported the negative aspects associated with pornography viewing. According to the authors, this anticipation of negative effects could reflect a critical attitude toward this medium and thus reduce its impact on youths' sexuality. They suggest that we should not perceive the use of pornography solely in terms of risk for the psychosexual development of teenagers, but rather focus our efforts on providing information in a way that fosters their critical thinking. Moreover, a longitudinal study among Croatian teenagers showed both a significant increase in the use of

sexually explicit materials and a significant decrease in perceived realism of these contents, but no statistically significant association between these variables (Wright & Štulhofer, 2019).

Overall, since our only associations are cross-sectional and of low magnitude, our results may reflect that pornography use is not a significant risk factor for DVV. Other online behaviors may promote DVV, including communication technologies (Baker & Carreño, 2016) and sexting (Van Ouytsel et al., 2021), which should be further studied. Besides, as found in another study, pornography use may rather be a risk factor for DV perpetration (Rostad et al., 2019) or for violence victimization experienced in other contexts than dating relationships, such as sexual victimization (Bekele et al., 2011; Bonino et al., 2006; Harsey et al., 2021).

Strengths, Limitations, and Future Studies

Using a large sample of adolescents from various socio-economic backgrounds, this study adds to the body of literature on DVV by examining the directionality of associations between pornography use (frequency and first age of use)—a potential risk factor for DVV—and three forms of DVV (psychological, physical, and sexual) over time. The longitudinal and bidirectional design made it possible to examine whether the cross-sectional associations differed after 1 year and whether pornography use preceded DVV and vice versa. The use of questionnaires requiring participants to reflect on DVV in the past year and pornography use frequency in the past 3 months may have minimized recall bias. In addition, controlling for masturbation frequency and COVID-19 status allowed us to isolate the contribution of our variables of interest.

However, these results must be interpreted considering certain limitations. First, self-report questionnaires were used to measure all variables. The answers from participants could therefore be prone to biases, leading to either over-reported or under-reported behaviors. In addition, we asked participants if they masturbated, rather than if they had ever masturbated, which may have led some to interpret the question as referring to a regular pattern rather than a single or rare experience, potentially resulting in underreporting. Also, the characteristics of our sample may limit the possibility of generalizing our results. Notably, given the small sample size of nonbinary participants, we could not statistically compare their group to the boys' and girls' groups. Future studies could aim for a more diverse sample, especially with regard to gender identity. Although we evaluated both pornography use frequency and the age at first viewing, some studies suggest that additional variables could have provided a more complete portrait of participants' pornography use. For example, since the frequency is not

always an indicator of problematic pornography use (Bőthe, Tóth-Király, et al., 2020), it would have been interesting to use a validated scale for problematic pornography use, to examine whether problematic pornography use, as opposed to recreational use, is associated with DVV. Moreover, adolescents lost between T1 and T2 could be those who had more problematic pornography use, as found by Štulhofer et al. (2021). Finally, our research design does not inform us of the potential effects in the longer term, in sexuality in adulthood with a stable partner. Therefore, future studies could examine the short- and long-term impacts of pornography on their perception of what is (or is not) acceptable in a romantic relationship. These studies could assess not only the viewing or not, but importantly, the content of what is watched. In any case, the study of risk factors of victimization should not be conducted to increase victims' responsibility, but rather to promote better awareness of safe relationships.

Conclusion

Considering that DVV may increase the risk of re-victimization in adulthood (Exner-Cortens et al., 2013; Gómez, 2011), it seems paramount to take an interest in the factors that could be associated with its occurrence in teenagers. Although pornography use has been identified as a factor associated with DVV (Jongsma & Timmons Fritz, 2022; Raiford et al., 2007; Rostad et al., 2019; Rothman & Adhia, 2016), to our knowledge, this is the first study that examined pornography and DVV longitudinally and bidirectionally among a large and diverse sample of adolescents. Our results highlight some small associations at the cross-sectional level, but an absence of longitudinal links between pornography use and DVV, suggesting that youth pornography use may not have long-term effects on DVV. Although modest, these findings support the importance of interventions that promote healthy intimate relationships in adolescence and education about pornography use. They also provide additional insight and offer more nuance regarding the potential impact of pornography use on DVV. Our findings support the notions of the statements from Puglia and Glowacz (2015), suggesting not to think of pornography use solely as a risk factor, but instead to focus on the development of critical reflexivity about pornography, since sexually explicit media is now integrated into the lives of a large proportion of adolescents (Andrie et al., 2021; Peter & Valkenburg, 2016).

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Supplemental Material

Supplemental material for this article is available online.

Note

1. Given the small sample size in the nonbinary group ($n = 7$ at T1), we could not statistically compare their group to the boys' and girls' groups.

References

Andrie, E. K., Sakou, I. I., Tzavela, E. C., Richardson, C., & Tsitsika, A. K. (2021). Adolescents' online pornography exposure and its relationship to sociodemographic and psychopathological correlates: A cross-sectional study in six european countries. *Children*, *8*(10), 925.

Baker, C. K., & Carreño, P. K. (2016). Understanding the role of technology in adolescent dating and dating violence. *Journal of Child and Family Studies*, *25*, 308–320.

Banyard, V. L., & Cross, C. (2008). Consequences of teen dating violence: Understanding intervening variables in ecological context. *Violence Against Women*, *14*(9), 998–1013.

Bekele, A. B., Van Aken, M. A., & Dubas, J. S. (2011). Sexual violence victimization among female secondary school students in eastern Ethiopia. *Violence and Victims*, *26*(5), 608–630.

Bonino, S., Ciairano, S., Rabaglietti, E., & Cattelino, E. (2006). Use of pornography and self-reported engagement in sexual violence among adolescents. *European Journal of Developmental Psychology*, *3*(3), 265–288.

Bőthe, B., Tóth-Király, I., Griffiths, M. D., Potenza, M. N., Orosz, G., & Demetrovics, Z. (2021). Are sexual functioning problems associated with frequent pornography use and/or problematic pornography use? Results from a large community survey including males and females. *Addictive Behaviors*, *112*, 106603.

Bőthe, B., Tóth-Király, I., Potenza, M. N., Orosz, G., & Demetrovics, Z. (2020). High-frequency pornography use may not always be problematic. *The Journal of Sexual Medicine*, *17*(4), 793–811.

Bőthe, B., Vaillancourt-Morel, M.-P., Bergeron, S., & Demetrovics, Z. (2019). Problematic and non-problematic pornography use among LGBTQ adolescents: A systematic literature review. *Current Addiction Reports*, *6*(4), 478–494.

Bőthe, B., Vaillancourt-Morel, M.-P., Dion, J., Paquette, M.-M., Massé-Pfister, M., Tóth-Király, I., & Bergeron, S. (2022). A longitudinal study of adolescents' pornography use frequency, motivations, and problematic use before and during the COVID-19 pandemic. *Archives of Sexual Behavior*, *51*(1), 139–156.

Bőthe, B., Vaillancourt-Morel, M.-P., Dion, J., Štulhofer, A., & Bergeron, S. (2021). Validity and reliability of the short version of the Problematic Pornography Consumption Scale (PPCS-6-A) in adolescents. *Psychology of Addictive Behaviors*, *35*(4), 486–500.

Bőthe, B., Vaillancourt-Morel, M.-P., Girouard, A., Štulhofer, A., Dion, J., & Bergeron, S. (2020). A large-scale comparison of Canadian sexual/gender minority and heterosexual, cisgender adolescents' pornography use characteristics. *The Journal of Sexual Medicine*, *17*(6), 1156–1167.

Bridges, A. J., Sun, C. F., Ezzell, M. B., & Johnson, J. (2016). Sexual scripts and the sexual behavior of men and women who use pornography. *Sexualization, Media, & Society*, *2*(4), 1–14.

Bridges, A. J., Wosnitzer, R., Scharrer, E., Sun, C., & Liberman, R. (2010). Aggression and sexual behavior in best-selling pornography videos: A content analysis update. *Violence Against Women*, *16*(10), 1065–1085.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. *Testing Structural Equation Models*, *21*(2), 136–162.

Carroll, J. S., Busby, D. M., Willoughby, B. J., & Brown, C. C. (2017). The porn gap: Differences in men's and women's pornography patterns in couple relationships. *Journal of Couple & Relationship Therapy*, *16*(2), 146–163.

Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, *14*(3), 464–504.

Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness of fit indexes for testing measurement invariance. *Structural Equation Modeling*, *9*(2), 233–255.

Crabbe, M., Flood, M., & Adams, K. (2024). Pornography exposure and access among young Australians: A cross-sectional study. *Australian and New Zealand Journal of Public Health*, *48*(3), 100135.

East, P. L., & Hokoda, A. (2015). Risk and protective factors for sexual and dating violence victimization: A longitudinal, prospective study of Latino and African American adolescents. *Journal of Youth and Adolescence*, *44*(6), 1288–1300.

Exner-Cortens, D., Eckenrode, J., & Rothman, E. (2013). Longitudinal associations between teen dating violence victimization and adverse health outcomes. *Pediatrics*, *131*(1), 71–78.

Farré, J. M., Montejo, A. L., Agulló, M., Granero, R., Chiclana Actis, C., Villena, A., Maideu, E., Sánchez, M., Fernández-Aranda, F., & Jiménez-Murcia, S. (2020). Pornography use in adolescents and its clinical implications. *Journal of Clinical Medicine*, *9*(11), 3625.

Fernandez-Gonzalez, L., Wekerle, C., & Goldstein, A. L. (2012). Measuring adolescent dating violence: Development of 'conflict in adolescent dating relationships inventory'short form. *Advances in Mental Health*, *11*(1), 35–54.

Franz, M. R., DiLillo, D., & Gervais, S. J. (2016). Sexual objectification and sexual assault: Do self-objectification and sexual assertiveness account for the link? *Psychology of Violence*, *6*(2), 262–270.

Fredrickson, B. L., Hendler, L. M., Nilsen, S., O'Barr, J. F., & Roberts, T.-A. (2011). Bringing back the body: A retrospective on the development of objectification theory. *Psychology of Women Quarterly*, *35*(4), 689–696.

Fredrickson, B. L., Roberts, T.-A., Noll, S. M., Quinn, D. M., & Twenge, J. M. (1998). That swimsuit becomes you: Sex differences in self-objectification, restrained eating, and math performance. *Journal of Personality and Social Psychology*, *75*(1), 269–284.

Frith, H., & Kitzinger, C. (2001). Reformulating sexual script theory: Developing a discursive psychology of sexual negotiation. *Theory & Psychology*, *11*(2), 209–232.

Girouard, A., Dion, J., Bőthe, B., O'Sullivan, L., & Bergeron, S. (2021). Bullying victimization and sexual wellbeing in sexually active heterosexual, cisgender and sexual/gender minority adolescents: The mediating role of emotion regulation. *Journal of Youth and Adolescence*, *50*(11), 2136–2150.

Gómez, A. M. (2011). Testing the cycle of violence hypothesis: Child abuse and adolescent dating violence as predictors of intimate partner violence in young adulthood. *Youth & Society*, *43*(1), 171–192.

Harsey, S. J., Noll, L. K., Miller, M. J., & Shallcross, R. A. (2021). Women's age of first exposure to internet pornography predicts sexual victimization. *Dignity: A Journal of Analysis of Exploitation and Violence*, *6*(5), 1.

Hébert, M., Blais, M., & Lavoie, F. (2011). *L'enquête sur le Parcours amoureux des jeunes (PAJ) – Volet I: Enquête longitudinale représentative auprès des jeunes Québécois fréquentant l'école secondaire*. Département de sexologie, Université du Québec à Montréal, Montréal (QC).

Hébert, M., Blais, M., & Lavoie, F. (2017). Prevalence of teen dating victimization among a representative sample of high school students in Quebec. *International Journal of Clinical and Health Psychology*, *17*(3), 225–233.

Hébert, M., Moreau, C., Blais, M., Oussaïd, E., & Lavoie, F. (2019). A three-step gendered latent class analysis on dating victimization profiles. *Psychology of Violence*, *9*(5), 504–516.

Heise, L., & Garcia-Moreno, C. (2002). La violence exercée par des partenaires intimes. In E. G. Krug, L. L. Dahlberg, J. A. Mercy, A. Zwi, & R. Lozano-Ascencio (Eds.), *Rapport mondial sur la violence et la santé* (pp. 99–135). Organisation mondiale de la Santé. https://apps.who.int/iris/bitstream/handle/10665/42545/9242545619_fre.pdf;jsessionid=B9F51F302997D4AC97530DC4F5CC0F0F?sequence=1

Herbitter, C., Norris, A. L., Nelson, K. M., & Orchowski, L. M. (2022). Understanding associations between exposure to violent pornography and teen dating violence among female sexual minority high school students. *Journal of Interpersonal Violence*, *37*(17–18), NP17023–NP17035.

Jongsma, K., & Timmons Fritz, P. (2022). The role of pornography use in intimate partner violence in different-sex couples: A prospective longitudinal study. *Journal of Interpersonal Violence*, *37*(21–22), NP20873–NP20897.

Karsay, K., Knoll, J., & Matthes, J. (2018). Sexualizing media use and self-objectification: A meta-analysis. *Psychology of Women Quarterly*, *42*(1), 9–28.

Kohut, T., Balzarini, R. N., Fisher, W. A., & Campbell, L. (2018). Pornography's associations with open sexual communication and relationship closeness vary as a function of dyadic patterns of pornography use within heterosexual relationships. *Journal of Social and Personal Relationships*, *35*(4), 655–676.

Kohut, T., Balzarini, R. N., Fisher, W. A., Grubbs, J. B., Campbell, L., & Prause, N. (2020). Surveying pornography use: A shaky science resting on poor measurement foundations. *The Journal of Sex Research*, *57*(6), 722–742.

Leen, E., Sorbring, E., Mawer, M., Holdsworth, E., Helsing, B., & Bowen, E. (2013). Prevalence, dynamic risk factors and the efficacy of primary interventions for adolescent dating violence: An international review. *Aggression and Violent Behavior*, *18*(1), 159–174.

Löfgren-Mårtenson, L., & Månsson, S.-A. (2010). Lust, love, and life: A qualitative study of Swedish adolescents' perceptions and experiences with pornography. *Journal of Sex Research*, *47*(6), 568–579.

Maas, M. K., Vasilenko, S. A., & Willoughby, B. J. (2018). A dyadic approach to pornography use and relationship satisfaction among heterosexual couples: The role of pornography acceptance and anxious attachment. *The Journal of Sex Research*, *55*(6), 772–782.

Marsh, H. W., Hau, K.-T., & Grayson, D. (2005). Goodness of fit in structural equation models. In A. Maydeu-Olivares & J. J. McArdle (Eds.), *Contemporary psychometrics: A festschrift for Roderick P. McDonald. Multivariate Applications Series* (pp. 275–340). Lawrence Erlbaum Associates Publishers.

Marshall, E. A., & Miller, H. A. (2024). Age and type of first exposure to pornography: It matters for girls and boys. *Deviant Behavior*, *45*(3), 377–393.

Newman, D. A. (2014). Missing data: Five practical guidelines. *Organizational Research Methods*, *17*(4), 372–411.

Paquette, M.-M., Dion, J., Bőthe, B., Girouard, A., & Bergeron, S. (2022). Heterosexual, cisgender and gender and sexually diverse adolescents' sexting behaviors: The role of body appreciation. *Journal of Youth and Adolescence*, *51*(2), 278–290.

Perry, S. L. (2020). Is the link between pornography use and relational happiness really more about masturbation? Results from two national surveys. *The Journal of Sex Research*, *57*(1), 64–76.

Peter, J., & Valkenburg, P. M. (2016). Adolescents and pornography: A review of 20 years of research. *The Journal of Sex Research*, *53*(4–5), 509–531.

Prause, N. (2019). Porn is for masturbation. *Archives of Sexual Behavior*, *48*(8), 2271–2277.

Puglia, R., & Glowacz, F. (2015). Consommation de pornographie à l'adolescence: quelles représentations de la sexualité et de la pornographie, pour quelle sexualité? *Neuropsychiatrie de l'Enfance et de l'Adolescence*, *63*(4), 231–237.

Raiford, J. L., Wingood, G. M., & DiClemente, R. J. (2007). Prevalence, incidence, and predictors of dating violence: A longitudinal study of African American female adolescents. *Journal of Women's Health*, *16*(6), 822–832.

Ripper, L., Ciaravino, S., Jones, K., Jaime, M. C. D., & Miller, E. (2017). Use of a respondent-generated personal code for matching anonymous adolescent surveys in longitudinal studies. *Journal of Adolescent Health*, *60*(6), 751–753.

Rostad, W. L., Gittins-Stone, D., Huntington, C., Rizzo, C. J., Pearlman, D., & Orchowski, L. (2019). The association between exposure to violent pornography and teen dating violence in grade 10 high school students. *Archives of Sexual Behavior*, *48*(7), 2137–2147.

Rothman, E. F., & Adhia, A. (2016). Adolescent pornography use and dating violence among a sample of primarily black and Hispanic, urban-residing, underage youth. *Behavioral Sciences*, *6*(1), 1.

Rothman, E. F., Beckmeyer, J. J., Herbenick, D., Fu, T.-C., Dodge, B., & Fortenberry, J. D. (2021). The prevalence of using pornography for information about how to have sex: Findings from a nationally representative survey of US adolescents and young adults. *Archives of Sexual Behavior*, *50*(2), 629–646.

Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, *8*(2), 23–74.

Simon, W., & Gagnon, J. H. (1986). Sexual scripts: Permanence and change. *Archives of Sexual Behavior*, *15*(2), 97–120.

Sinković, M., Štulhofer, A., & Božić, J. (2013). Revisiting the association between pornography use and risky sexual behaviors: The role of early exposure to pornography and sexual sensation seeking. *Journal of Sex Research*, *50*(7), 633–641.

Smaniotto, B., & Melchiorre, M. (2018). Quand la construction de la sexualité adolescente se confronte à la violence du voir pornographique [When adolescent sexuality is confronted with the violence of the pornographic seeing]. *Sexologies: European Journal of Sexology and Sexual Health / Revue européenne de sexologie et de santé sexuelle*, *27*(4), 177–183.

Štulhofer, A., Matković, T., Kohut, T., Koletić, G., Buško, V., Landripet, I., & Vodopijevec, A. (2021). Are we losing the most relevant cases first? Selective dropout in two longitudinal studies of adolescent pornography use. *Archives of Sexual Behavior*, *50*(5), 2215–2226.

Vagi, K. J., Rothman, E. F., Latzman, N. E., Tharp, A. T., Hall, D. M., & Breiding, M. J. (2013). Beyond correlates: A review of risk and protective factors for adolescent dating violence perpetration. *Journal of Youth and Adolescence*, *42*(4), 633–649.

Van Ouytsel, J., Lu, Y., Shin, Y., Avalos, B. L., & Pettigrew, J. (2021). Sexting, pressured sexting and associations with dating violence among early adolescents. *Computers in Human Behavior*, *125*, Article 106969.

Vera-Gray, F., McGlynn, C., Kureshi, I., & Butterby, K. (2021). Sexual violence as a sexual script in mainstream online pornography. *The British Journal of Criminology*, *61*(5), 1243–1260.

Wolfe, D. A., Scott, K., Reitzel-Jaffe, D., Wekerle, C., Grasley, C., & Straatman, A.-L. (2001). Development and validation of the conflict in adolescent dating relationships inventory. *Psychological Assessment*, *13*(2), 277–293.

Wright, P. J., & Štulhofer, A. (2019). Adolescent pornography use and the dynamics of perceived pornography realism: Does seeing more make it more realistic? *Computers in Human Behavior*, *95*, 37–47.

Yurek, L. A., Vasey, J., & Sullivan Havens, D. (2008). The use of self-generated identification codes in longitudinal research. *Evaluation Review*, *32*(5), 435–452.

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