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The Relationship Between Violent Media, Pornography, and Cyber Dating Abuse Among Adolescents

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Graduate Program in Education

A thesis submitted in partial fulfillment of the requirements for the degree in Master of Arts

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The Relationship Between Violent Media, Pornography, and Cyber Dating Abuse Among
Adolescents

(Thesis format: Monograph)

by

Jessica Sciaraffa

Graduate Program in Faculty of Education

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts, Counselling Psychology

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Abstract

The current study examined the relationship between exposure to violent media and pornography, and the perpetration and experience of sexual cyber dating abuse among adolescents. The study also assessed the relationship between violence-tolerant attitudes with dating abuse outcomes, and examined the mediating role of attitudes in the relationship between violent media and pornography consumption and dating abuse perpetration and victimization. Participants were 113 adolescent boys and girls who reported currently being in a romantic relationship or having been in one during the past year. Participants completed an anonymous paper-pencil survey. Results highlighted pornography and gender as risk factors for the perpetration of sexual cyber dating abuse. Gender moderated the relationship between pornography and perpetration. Violence-tolerant attitudes predicted cyber dating abuse victimization. Contradictory findings were evident for violent media. Implications for school-based dating violence, parenting, and community-based interventions are discussed, as well as policy implications.

Keywords: Cyber dating abuse, adolescents, pornography, gender, violent media, violence-tolerant attitudes

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The Relationship Between Violent Media, Pornography, and Cyber Dating Abuse

Introduction

Adolescence is an important developmental period for establishing healthy romantic relationships. By late adolescence, many youth report dating activities and 50% have a current partner (Carver, Joyner, & Udry, 2003). Unfortunately, for many youth, these relationships are marked by violence and abuse. Studies show that patterns of dating violence often emerge during adolescence (Silverman, Raj, Mucci, & Hathaway, 2001). Thus, adolescence represents a critical period to study the perpetration and experience of dating abuse. The term *dating violence* has been used to describe physical, sexual, psychological, or emotional violence with a current or former romantic partner (Centers for Disease Control and Prevention, 2010). Adolescent dating violence has become an important focus of investigation not only because of its alarmingly high rates (O'Leary & Smith Slep, 2003) and mental health consequences (O'Keefe, 2005), but because it occurs at a time when adolescents are learning patterns of interactions that may extend into adulthood (Foshee, Linder, MacDougall, & Bangdiwala, 2001).

Cyber Dating Abuse

Recent advancements in technology (e.g., social networking, texting on a cellular phone) have created new ways for people to relate to one another socially, and new tools for those involved in dating violence to harass, control, and abuse their partners. This widespread phenomenon, known as *cyber dating abuse*, is the use of technology and new media (e.g., social networking sites, texting, e-mail) to harass, control or abuse a dating partner (Zweig, Dank, Yahner, & Lachman, 2013). Cyber dating abuse is highly prevalent and more than one out of four youth (26%) reported being a victim of such abuse in the past year, while 12% reported perpetration (Zweig et al., 2013).

Cyber abuse has been divided into two categories: sexual cyber abuse and non-sexual/emotional cyber abuse (e.g., sending threatening text messages to partners, writing nasty things about partners on social networking sites). Sexual cyber dating abuse, the focus of the current study, includes for instance, pressuring a partner to send a sexual or naked photo of him or herself, posting sexual photos of one's partner online without the partner's consent, or pressuring a partner to have sex or engage in sexual acts via texting, e-mail, or social networking sites. In this study, sexual cyber dating abuse has been conceptualized as a form of sexually aggressive behaviour. Research shows that males make up the majority of perpetrators of sexual cyber dating abuse, and females are twice as likely as males to experience this abuse. Furthermore, victims of sexual cyber dating abuse have been found to be seven times more likely than non-victims to have also experienced sexual coercion, while perpetrators are 17 times more likely to have perpetrated sexual coercion in comparison to non-perpetrators (Zweig et al., 2013).

Youths' daily activities and social worlds revolve around new media practices such as using cell phones, engaging in instant messaging, watching and creating online videos, and connecting to social networking websites (Rideout, Roberts, & Foehr, 2005). For youth 12 to 17 years of age, 77% have cell phones (Lenhart, 2012), 95% are online (Lenhart et al., 2011), and 80% report using social networking sites (e.g., Facebook, Twitter; Lenhart, Purcell, Smith, & Zickuhr, 2011). Given the high frequency at which youth use technology, it is not surprising that technology use plays an important role in how youth interact with dating partners. The ability to be in constant contact with a dating partner via these relatively new technologies may contribute to adolescents' ability to control, harass, and abuse their partners. Despite the integral role that technology plays in the day-to-day experience of adolescents, as well as the high prevalence of

cyber dating abuse, there is a paucity of research in this area, including those risk factors that are associated with its perpetration and experience.

Media Violence as a Risk Factor for Dating Aggression

In an effort to prevent adolescent dating violence and to better understand its development, a burgeoning body of research has examined risk factors for victimization and perpetration. Exposure to violence, attitudes regarding violence, peer influence, personality factors, problem behaviour, and relationship variables are the major risks identified in previous research (Capaldi, Knoble, Shortt, & Kim, 2012; O'Keefe, 2005). More recent research pertaining specifically to cyber dating abuse has found that experiences of cyber abuse were significantly correlated with being female, committing a greater variety of delinquent behaviours, having had sexual activity in one's lifetime, having higher levels of depressive symptoms, and having higher levels of anger or hostility (Zweig, Lachman, Yahner, & Dank, 2013).

Much of the research examining predictors and risk factors of dating violence has focused on proximal variables (e.g., relationship conflict/stress) and limited research has examined the influence of background factors (Friedlander, Connolly, Pepler, & Craig, 2013). One background risk factor in the teen dating violence literature that is just beginning to receive attention is exposure to aggressive or violent media. Despite findings that greater exposure to violent media via various media types (e.g., television shows, movies, video games, music) is associated with both short-term and long-term increases in aggressive thoughts and attitudes, aggressive emotions, and aggressive behaviours in adolescents (Anderson et al., 2003; Huesmann, Moise-Titus, Podolski, & Eron, 2003; Krahe, Bushing, & Moller, 2012), little research has examined the role of violent media consumption as a background risk factor for

dating abuse. Moreover, although the majority of research examining background risks has focused on the perpetration of dating violence, it has been proposed that media violence can also help explain victimization (Manganello, 2008; O'Keefe & Treister, 1998).

Reinforcing the importance of studying media effects is the fact that teenagers are avid consumers of popular media. In a recent study by the Kaiser Family Foundation, Rideout, Foehr, and Roberts (2010) examined the amount and nature of media usage in a large nationally representative sample of more than 2,000 American youth 8 to 18 years of age. According to this study, the average teen is exposed to multiple media types each day and spends more time with media than in any other activity, totaling more than 7.5 hours a day, when TV, movies, music magazines, video games and the Internet were taken into account. The Kaiser study also reports that youths' media consumption has significantly increased over the past five years (i.e., by over an hour of media use daily) and that the proliferation of mobile and online media has fueled this increase. Meanwhile, violence in the media has not only increased, but it has also become more graphic, sexual, and sadistic, and youth are being exposed to more violent media than ever before (Media Education Foundation, 2005).

Furthermore, adolescents also often report the importance of the media as a source of information about dating relationships (Wood, Senn, Desmarais, Park, & Verberg, 2002). Recently, this interest in the link between violent media and dating aggression was sparked by Manganello (2008) who argued that mass media images that portray aggressive behaviour towards others in ways that adolescents can realistically identify, increase the risk for aggression in their own relationships. This occurs because the media images serve as models for romantic behaviour and increase adolescents' beliefs that violence is an acceptable way to resolve conflict (Manganello, 2008).

Despite the paucity of research that has examined the influence of violent media on dating violence, some studies are beginning to provide initial support. For example, in a one-year longitudinal study, Connolly, Friedlander, Pepler, Craig, and Laporte (2010) used an ecological systems perspective to determine how risks across multiple contexts (e.g., individual, relationship, socio-cultural or popular media, socio-demographic) collectively contributed to dating aggression among a sample of 627 Canadian adolescents. Results showed that higher aggressive media usage across multiple media types (i.e., television shows, movies, music, video games) at Time 1 was associated with an increased likelihood of perpetrating and experiencing physical dating violence one year later (i.e., Time 2). Extending on this research, Friedlander, Connolly, Pepler and Craig (2013) examined whether adolescents' use of aggressive media posed a long-term risk for physical dating violence perpetration and victimization, considering extensiveness of use across multiple media types (i.e., television, movies, music, magazine, Internet) and persistence of use over three years. Findings showed that more extensive use of aggressive media was associated with increased dating violence perpetration and victimization, and that persistent use was only associated with increased dating violence victimization and perpetration in youth who were also extensive in their use of multiple media types. Despite this budding support, however, limited research has explored the role of exposure to media violence as a potential risk factor for perpetrating and experiencing dating abuse, and this is especially important in light of adolescents' high consumption of popular media.

Contradictory findings regarding the impact of media violence on aggression.

Notably, despite research supporting the relationship between violent media and aggression in adolescents, other studies have reported contradictory findings. Some research suggests that violent video games (Ferguson, Garza, Jerabeck, Ramos, & Galindo, 2013), television shows

(Ferguson, 2011), and music (Saarikallio & Erkkila, 2007) are not associated with an increase in aggressive thoughts and attitudes, or with aggressive and violent behaviours in youth. Despite these contradictory findings, however, the vast majority of the literature supports the relationship between violent media and aggressive behaviours among youth (Anderson et al., 2003). Even after taking into consideration various other risk factors to youth aggression, the research clearly shows that violent media consumption increases the relative risk of aggression (Krahe, 2012).

Exposure to Pornography as a Risk Factor for Dating Aggression

Little to no research has examined the influence of pornography on teen dating violence. Reinforcing the importance of studying the effects of pornography is the alarming research finding that adolescents between 12 and 17 years of age, and particularly, adolescent boys, make up the largest group of internet porn consumers ("Facts and Figures", 2013). Thus, pornography can play an important role in the sexual education of adolescents and can skew their understanding of what a normal and healthy sexual relationship is. Adolescence represents a critical period of development, with change occurring across a multitude of developmental domains, including physical, emotional, cognitive, social, spiritual, and sexual domains. Thus, in light of these critical developmental changes, adolescents may be considered one of the most susceptible audiences to be influenced by sexually explicit content (Owens, Behun, Manning, & Reid, 2012).

Several studies have documented the negative impact of pornography on adolescents' sexual attitudes, beliefs, sexual behaviour, and sexual aggression. In a cross-sectional study conducted in Italy, Bonino, Ciairano, Rabaglietti, and Cattelino (2006) investigated the relationship between exposure to pornography and the perpetration and experience of sexual violence and harassment in a sample of 804 adolescent boys and girls 14 to 19 years of age. The

study found that, in adolescent boys, reading pornographic material (e.g., magazines, comics) was associated with an increased risk of sexually harassing a peer and forcing someone to have sex. Meanwhile, in adolescent girls, viewing pornographic videos increased the likelihood of being a victim of sexual violence. In line with this, Franklin (2010) found that women who regularly consumed pornography were more likely to report delayed behavioural responses to sexual threat in sexually risky scenarios and possessed more vulnerability-enhancing attitudes (e.g., traditional gender roles, acceptance of rape myths). Moreover, in a one-year prospective study, Brown and L'Engle (2009) examined whether exposure to sexually-explicit content (i.e., pornography and erotica) in adult magazines, X-rated movies, and the Internet predicted subsequent sexual attitudes and behaviours in a diverse sample of early adolescents. Results showed that for early adolescent (i.e., 12-14 years) boys, exposure to sexually explicit media predicted more permissive sexual norms and greater sexual harassment perpetration by middle adolescence (i.e., 14-16 years). For both early adolescent boys and girls, exposure to sexually explicit media predicted less progressive gender role attitudes and having oral sex and sexual intercourse by middle adolescence. Other studies have similarly documented the relationship between youths' use of pornography with permissive sexual attitudes and risky sexual behaviours (e.g., early sexual initiation, multiple sexual partners; Braun-Courville & Rojas, 2009), as well as accepting attitudes towards rape myths and sexual violence (Malamuth, Hald, & Koss, 2012), sexual aggression (Malamuth & Huppin, 2005), unrealistic attitudes about sex (Tsitsika et al., 2009), preoccupation with sex, and increased sexual uncertainty (i.e., lack of clarity of one's sexual beliefs/values; Peter & Valkenburg, 2008).

Contradictory findings regarding the impact of pornography exposure. Despite research supporting the deleterious impact of pornography on adolescents' sexual attitudes,

behaviours, and sexual violence, contradictory findings exist in the literature. Other studies have found that pornography exposure is not associated with risky sexual behaviours (Luder et al., 2011), unrealistic attitudes about sex (Lofgren-Martenson & Mansson, 2010), accepting attitudes toward sexual violence, and sexually aggressive behaviours (Demare, Briere, & Lips, 1988; Fisher & Grenier, 1994; Malamuth & Ceniti, 1986). Still, other researchers suggest that pornography is only related to the perpetration of sexual aggression and tolerant attitudes toward sexual violence in adolescents who also possess a combination of predisposing risk factors (e.g., impulsive and antisocial tendencies, hostility, hypermasculinity, lack of empathy, alcohol and drug use, childhood history of abuse, association with sexually aggressive peers; Malamuth & Huppin, 2005; Swartout, 2013; Ybarra & Mitchell, 2005; Yeater, Lenberg, & Bryan, 2011). Despite these contradictory findings, however, the majority of research supports the impact of pornography on adolescents' sexual attitudes and beliefs, sexual behaviours, attitudes toward violence, and sexually aggressive behaviour (Owens et al., 2012).

Social Cognitive Theory

Social cognitive theory (Bandura, 1989) has been widely used in media violence research (e.g., Anderson et al., 2010; Huesmann, 2010; Jih-Hsuan, 2013) and in numerous studies of adolescent dating violence (e.g., Brendgen, Vitaro, Tremblay, & Wanner, 2002; Friedlander et al., 2013; Josephson, & Proulx, 2008; Mueller, Jouriles, McDonald, & Rosenfield, 2013; Reyes, Foshee, Bauer, & Ennett, 2014). Social cognitive theory has argued that background variables (e.g., violent media), in addition to proximal variables (e.g., relationship conflict), can also increase the likelihood that an individual will become involved in dating violence (DeWall, Anderson, & Bushman, 2011). According to social cognitive theory, individuals learn by modelling the behaviour they have observed and seen rewarded in others present in their

environment. Thus, violent behaviour is viewed as being learned by observing others who behave aggressively, either by observing others directly in real life or by observing behaviours viewed in the media. In this way, social cognitive theory has been helpful in explaining the effect of the media on the perpetration of dating aggression, whereby perpetrators are seen as imitating the aggressive behaviours of media images that serve as models for romantic behaviour (Manganello, 2008).

Adolescents might also observe these media images being rewarded for their aggressive behaviours which might increase the likelihood that the aggressive behaviour is modelled. In addition, observational learning of aggressive strategies is likely to be enhanced if the individual identifies with or places a high value on the observed role models, as might be the case with certain media images and entertainment figures (e.g., celebrities, actors, music artists). Furthermore, an adolescent's use of dating aggression may also be reinforced by significant others in his or her environment (e.g., peers), either via negative reinforcement (e.g., lack of punishment for aggressive behaviour) or positive reinforcement where others might reward him or her for behaving aggressively (e.g., praise, other positive reactions).

By observing violent media images, youth may learn that aggression is an acceptable and effective means of attaining a desired goal and resolving conflict in their dating relationships (Manganello, 2008). This modelling process fosters a positive attitude toward the use of violence through the development of aggressive mental schemata and a positive outcome expectancy regarding aggression (Brendgen et al., 2002). These positive attitudes toward aggression also contribute to the perpetration of aggressive behaviours (Friedlander et al., 2013).

Although social cognitive theory has been used mainly to explain the role of the perpetrator of violence in intimate relationships, it can also be used to explain victimization. It

has been proposed that violence observed in the media might have an impact on both the perpetration and experience of dating abuse (Friedlander et al., 2013). The rationale for this is based on the fact that media violence is portrayed in the context of a relationship where one person perpetrates violence and the other is the target of violence. As such, when adolescents view these portrayals, they can attend to both aspects of the relationship, focusing on the victim as well as the aggressor. However, the underlying mechanisms that account for media effects on victimization or perpetration may differ; whereas principles of reinforcement are most relevant to perpetration, it is more likely that cognitive processes, most notably appraisal processes, underlie the effects of media violence on victimization (Noll & Grych, 2011).

It is suggested that media violence encourages the development of maladaptive appraisal processes related to cues of potential threat in dating relationships. Specifically, by observing media portrayals of victims ignoring threat cues of potential violence from the aggressor, adolescents also learn to disregard these cues in their own relationships and then do not prioritize their own safety over the need to maintain the relationship (Noll & Grych, 2011). Like the perpetrators of violence, victims similarly develop more tolerant and accepting attitudes toward dating abuse through the observation of media violence, which, in turn, increase their vulnerability of experiencing aggression (Franklin, 2010; Friedlander et al., 2013). The current study will rely on social cognitive theory to help explain the effects of violent media and pornography on the perpetration and experience of sexual cyber dating abuse among adolescents.

Mediating Role of Attitudes on Dating Violence

Violent media may exert its effect on dating violence through adolescents' attitudes. The belief that it is acceptable to use violence or behave aggressively towards a dating partner who has acted badly has been found to be one of the most consistent predictors of dating abuse (Capaldi et al., 2012; Foshee et al., 2001). Theories of partner violence (DeWall et al., 2011; Riggs & O'Leary, 1989) purport that individuals who perceive violence as a justifiable conflict resolution tactic are more likely to behave aggressively toward a romantic partner. Indeed, research suggests that violence-tolerant attitudes in adolescents are predictive of the likelihood of using aggression in both current and new dating relationships (Williams, Connolly, Pepler, Craig, & Laporte, 2008). The positive endorsement of values that condone the use of aggression toward a dating partner as a way of solving problems has also been shown to predict increased dating aggression both immediately (Josephson & Proulx, 2008) and over the course of a year (Foshee et al., 2008).

Previous research suggests that beliefs and attitudes accepting of violence are key risk factors for both the perpetration and experience of dating abuse in adolescent boys and girls. Studies have found that condoning attitudes toward physical and psychological violence in relationships were significant predictors of dating abuse perpetration in boys and girls (Sears, Byers, & Price, 2007; Temple, Shorey, Tortolero, & Wolfe, 2013). Research has also documented the relationship between adolescents' more accepting attitudes toward sexual violence, traditional gender roles and rape myths, and their increased likelihood of perpetrating sexual aggression toward their dating partner (Shen, Chiu, & Gao, 2012). Furthermore, adolescent boys and girls with more accepting attitudes toward various forms of dating violence

were also found to be more likely to experience and perpetrate sexual, physical and psychological dating abuse (Ali, Swahn, & Hamburger, 2011; Thompson, 2014).

Several studies also support the role of violence-tolerant attitudes as a mediator in the relationship between media violence and dating abuse perpetration and victimization. For example, in their one-year longitudinal study that examined how risk factors across multiple contexts (e.g., socio-cultural or popular media) collectively contribute to adolescent dating violence, Connolly and colleagues (2010) found that violence-tolerant attitudes mediated the relationship between the use of aggressive media (e.g., movies, magazines, video games) and the perpetration and experience of physical dating violence. Similarly, Friedlander et al. (2013) also reported that violence-tolerant attitudes mediated the link between media influences and physical dating abuse perpetration and victimization. The current study attempted to provide further support for the mediating role of violence-tolerant attitudes in the relationship between violent media and pornography consumption and dating abuse.

Gaps in the Research Literature

Several gaps exist in the adolescent dating violence literature. First, there is a paucity of research in the area of cyber dating abuse, including those risk factors associated with its experience and perpetration. Cyber dating abuse is a relatively new phenomenon, and despite recent research that supports its high prevalence among youth (Zweig et al., 2013), as well as the integral role that technology plays in the day-to-day experience of adolescents (e.g., Lenhart, 2012), very limited research has been conducted in this field and still much remains to be learned. Furthermore, while select studies have examined the correlates of cyber dating abuse (e.g., Zweig et al., 2013), this research has focused mainly on individual variables (e.g., gender, delinquent behaviours, depression) and little to no research has examined the impact of

background variables, such as media influences, on its experience and perpetration. Second, despite growing research that points to adolescents' increasingly high consumption of popular media (e.g., Lenhart, 2012), as well as budding support for the impact of aggressive media usage on dating violence (e.g., Connolly et al., 2010; Friedlander et al., 2013), limited research has focused on violent media as a risk factor for dating abuse perpetration and victimization. Third, despite the high consumption of pornography among adolescents, as well as research that shows that adolescents' use of pornography is associated with the perpetration and experience of sexual violence, a paucity of research has examined the influence of pornography on teen dating abuse. And fourth, the majority of research that has looked at the impact of media aggression on adolescent dating violence has focused mainly on physical dating violence outcomes, and limited research has looked at the influence of the media on sexual forms of dating aggression. No research to date has examined the relationship between exposure to violent media and cyber dating abuse.

Current Study: Goals and Hypotheses

In light of the above mentioned gaps in the research literature, the main objective of the present study was to examine the relationship between exposure to violent media and pornography, and the perpetration and experience of sexual cyber dating abuse among adolescents. A second objective was to examine the relationship between violence-tolerant attitudes and dating abuse perpetration and victimization. Third, the mediating role of violence-tolerant attitudes in the relationship between violent media and pornography consumption with dating abuse was examined.

The current study consists of four hypotheses that are based on previous research:

Hypothesis 1: Higher consumption of violent media, via video games and television shows, will be associated with an increased risk for perpetrating and experiencing sexual cyber dating abuse.

Hypothesis 2: Consumption of pornography will be related to an increased risk of sexual cyber dating abuse perpetration and experience.

Hypothesis 3: More violence-tolerant attitudes will be associated with an increased risk of perpetration and victimization.

Hypothesis 4: Violence-tolerant attitudes will mediate the relationship between violent media and pornography consumption and cyber dating abuse perpetration and victimization.

Method

Participants

A total of 213 students were sampled, using convenience sampling, from three secondary schools in southwestern Ontario that were in close proximity to the researcher. Participants completed an anonymous paper-pencil survey. Of the total students surveyed, 113 students (53%) reported currently being in a romantic relationship or having been in one during the past year. Only these 113 students were included in the current study. Of this dating sample, 65% ($n = 74$) were female participants and 35% ($n = 39$) were male. Participants were students enrolled in grades 9 to 12 ($M_{\text{grade}} = 10.74$, $SD = 1.04$) in Health/Physical Education and English/Media Literacy classes, and ranged from 13 to 18 years of age ($M_{\text{age}} = 15.61$, $SD = 1.23$). Thirty-three percent ($n = 37$) of the sample was enrolled in intermediate grades 9 and 10, and 67% ($n = 76$) of the sample was enrolled in senior grades 11 and 12.

Design and Procedure

This study employed a cross-sectional, between-subjects, correlational research design. This research design was warranted given that the independent variables (i.e., violent media and

pornography consumption, violence-tolerant attitudes) were not - and could not for ethical reasons - be manipulated by the researcher. Participants could not be randomly assigned across the different conditions of the independent variables (i.e., amount of time spent using violent media, frequency of pornography use, level of violence-tolerant attitudes); each participant was tested under one condition only and a comparison was made between participants in the different conditions.

Students in English/Media Literacy and Health/Physical Education classes completed an anonymous survey, titled "Media and Social Life Survey" (see Appendix A), that was administered via paper-pencil procedures. Survey completion ranged from 15 to 20 minutes. The survey covered issues that students were already discussing in class, and gathered information about students' media and pornography consumption, attitudes towards dating violence, and perpetration and experience of dating abuse.

Prior to carrying out the study, the approval of both the Research Ethics Board at Western University and the school board was obtained. Classes were selected by English/Media Literacy and Health/Physical Education teachers interested in participating in the study, along with consenting students. To recruit participants, teachers informed students about the study and distributed the information and consent forms. Teachers received instruction (i.e., a recruitment script) regarding what information to provide to students about the study, and the distribution of the information and consent forms (see Appendix B). Teachers administered a total of four forms to each student, including the following: 1) a Youth Information Letter (see Appendix C); 2) a Youth Assent Form (see Appendix D); 3) a Parent Information Letter (see Appendix E); and 4) a Parent Consent Form (see Appendix F). The teachers instructed their students to bring the Parent Information Letter and Parent Consent Form home to be completed by their parents and to return

them if they wished to participate in the study. Written informed consent was obtained from all students. Following with school protocol, both parental and participant consent were attained from students under 18 years of age. For students aged 18 years and older, parental consent was not required, and only participant consent was obtained.

Classroom teachers alerted the researchers once students returned completed assent and parent consent forms. The researchers coordinated with each teacher to arrange a date to visit their classroom during regular school hours to survey students. The researchers visited the school classrooms and, prior to administering the surveys, collected the consent forms from the teachers. The surveys were administered to students collectively in each classroom. Data collection took place over a period of two months, in October and November of 2014. Prior to administering the surveys, the researchers instructed students to refrain from writing their name on surveys and from speaking with other students during survey completion in order to maintain confidentiality and anonymity of responses. Students were also instructed to respond to survey questions as honestly and accurately as possible. Survey completion ranged from 15 to 20 minutes. Students who did not consent to participate in the study were asked to sit quietly at their desks and complete individual homework while other students in the class completed the survey. The researchers were available to speak privately with students during survey completion to attend to student questions or concerns pertaining to issues raised in the survey.

Following survey completion, students in participating classrooms were debriefed with a 15-minute presentation (see Appendix G for Debriefing Presentation). In total, the study spanned a period of approximately 35 minutes of regular class time. The debriefing presentation provided information about the purpose of the study, implications of the research findings for youth, and psycho-education about dating violence, cyber-bullying, bystander intervention, and the effects

of social media on youth violence and youth mental health. The debriefing presentation covered issues that students were already discussing in class and that met school provincial expectations in subjects around media literacy, cyber-bullying, and dating abuse. The presentation also provided students with resource information, including additional learning resources pertaining to topics around bullying and dating abuse, anonymous community and school-specific reporting websites, and a list of professional resources such as the contact information of counselling services (e.g., distress lines, suicide prevention hotlines). Students were encouraged to make use of these resources and to speak to their teacher or guidance counsellor if they experienced distress following study completion. Any outstanding questions or concerns were addressed.

Survey Measures

Dating partner status. Participants were asked whether they were currently in a romantic relationship or had been in one during the past year. A romantic relationship was defined as a relationship with "a boyfriend or girlfriend [including a same-sex relationship], someone you have dated or are currently dating (e.g., going out or socializing without being supervised), someone who you like or love and spend time with, or a relationship that might involve sex" (Zweig et al., 2013, p. 1067). This definition was adapted from the study by Zweig and colleagues on cyber dating abuse. Only participants who reported being in a current or recent romantic relationship were included in the study.

Cyber dating abuse. Participants who reported being in a current or recent dating relationship were asked to complete a series of questions pertaining to the perpetration and experience of sexual cyber dating abuse with their current or most recent dating partner. Sexual cyber dating abuse perpetration and victimization were each measured using four items for a total of eight items. The same four items were asked twice: the first time to capture victimization

experiences during the prior year and the second time to capture perpetration behaviours during the same time period. Students rated how often they had perpetrated dating abuse against their partner or had been victimized on a 4-point Likert scale. Response options included (0) Never, (1) Rarely, (2) Sometimes, and (3) Very often. Items included the following: 1) pressuring partners to send a sexual or naked photo of themselves; 2) sending partners sexual or naked photos of him/herself that he/she knew the partner did not want; 3) threatening partners if they did not send a sexual or naked photo of themselves; and 4) sending text messages, email, IM, chats, etc., to have sex or engage in sexual acts with him/ her when he/she knew the partner did not want to.

These items measuring sexual cyber dating abuse were used in a recent study that examined the extent of cyber dating abuse and how it relates to other forms of teen dating violence among a sample of 5,647 youth in northeastern U.S. (Zweig et al., 2013). Zweig and colleagues adapted one of the items (i.e., sending text messages, email, IM, chats, etc., to have sex or engage in sexual acts with him/her when he/she knew the partner did not want to) from a study conducted by Teen Research Unlimited that examined youths' use of technology in dating relationships and parent awareness of teen dating behaviours in a national survey of 1,029 parents and youth (Picard, 2007). The remaining three items were created for the purpose of their study; however, they examined Griesel's (2007) cyber bullying scale to guide this process. Measures of internal consistency for the sexual cyber dating abuse subscales in the current study's sample were high: $\alpha = .80$ for victimization and $\alpha = .84$ for perpetration.

Items assessing sexual cyber dating abuse were first scored from 0 to 3; these item scores were then added together to attain a total summed score ranging from 0 to 12 for each of the perpetration and victimization subscales, with higher scores indicating a greater frequency of

dating abuse perpetration or victimization. Summed total scores for cyber dating abuse perpetration and victimization were each dichotomized. A "No" group indicating the absence of dating abuse perpetration (i.e., total score of 0), and a "Yes" group indicating the presence of perpetration (i.e., total scores ranging from 1 to 12), were created. Similarly, a "No" group indicating the absence of dating abuse victimization (i.e., total score of 0), and a "Yes" group indicating the presence of victimization (i.e., total scores ranging from 1 to 12), were created. Notably, participants assigned to the "Yes" group had experienced or perpetrated at least one act of dating abuse rarely. These dichotomized scores served as the dependent measure of the study.

Violent media usage. A total of six items were used to assess participants' exposure to violent media. For the purpose of the current study, *media violence* was used to refer primarily to acts of physical aggression that were intended to harm and that were committed by one human, human-like, or non-human character against another. This definition of violence is consistent with other media violence studies (e.g., Huesmann, 2007; Huesmann & Taylor, 2006). The survey originally measured students' use of violent media across three media types: television shows, video games, and music. Participants were first asked to name their three favourite television shows, video games, and musical artists/groups in no particular order (three items). Following this, participants were asked to indicate how much time a day they spent watching television shows, playing video games, and listening to music (three items) on a 5-point rating scale. Response options included (0) None, (1) 5 Min to Less than 30 Min, (2) 30 Min to 1 Hr, (3) More than 1 Hr to 3 Hrs, and (4) More than 3 Hrs.

Items asking participants to indicate the amount of time exposed to the different media types were adapted from the Kaiser Generation M² study (Rideout et al., 2010), the latest and third-wave study in a series of studies by the Kaiser Family Foundation that examined media use

in a large nationally representative sample of American youth. Response options for the media use items were kept the same as those used in the Kaiser study. Researchers examining violent media exposure with youth populations have commonly assessed this exposure by asking participants to first nominate and then rate how often they consume their favourite media types (e.g., television show, movie, magazine, video game, website; Anderson et al., 2008; Connolly et al., 2010; Friedlander et al., 2013).

Meanwhile, the three mediums of television shows, video games and music were initially selected for their high consumption among youth as well as to capture the diversity of media usage in youth populations. According to the Kaiser Family Foundation Study (Rideout et al., 2010), television content ranked as the number one medium to which youth were exposed in a typical day. On average, youth spent the second highest amount of time exposed to music or audio in a typical day, while video games ranked fourth, following computer usage. Other researchers have also examined exposure to media violence across these media types (e.g., Anderson et al., 2003; Connolly et al., 2010; Friedlander et al., 2013).

Items assessing the amount of daily time spent consuming the different media types were coded from 0 to 4 prior to obtaining violence ratings. The researchers utilized the violence ratings system provided by Common Sense Media (www.commonsensemedia.org) to obtain information about violent content for each of the three favourite television shows, video games, and musical artists/groups listed. Common Sense Media is a non-partisan, not-for-profit organization that provides trustworthy and independent ratings and reviews for multiple media types consumed by children and youth. Their unbiased ratings are conducted by expert reviewers and are not influenced by the creators or their funders. Common Sense Media contains a list of specific content categories that offer in-depth information on each title, including a violence

rating. Each television show, video game, and musical artist/group was rated on a scale ranging from (0) No violent content to (5) High level of violent content.

Notably, difficulties attaining violence ratings from the Common Sense Media website for the listed musical artists/groups led the researchers to drop music as one of the assessed media types; as such, ultimately, violent media consumption was only measured across two media types, television shows and video games. Video games and television shows that were not able to be found on the Common Sense Media website were coded as missing. Moreover, television shows and video games without a violence rating on the Common Sense Media scale (i.e., the violence rating was blurred out) either contained content that was not applicable or that did not rate on the scale and were also coded as missing. Meanwhile, participants who indicated that they did not watch television shows or play video games, and thus, did not name any on the survey, received a violence score of "0" for these media types.

After the violence ratings were obtained, the three violence scores for each media type were averaged to compute a mean violence score for television shows and video games. Mean violence scores were then multiplied by the respective ratings of consumption (i.e., 0 to 4) for television shows and video games in order to obtain a mean score of violent TV consumption and violent video game consumption. Recent research assessing the impact of violent media has commonly utilized this procedure (e.g., Anderson & Dill, 2000; Anderson et al., 2008; Gentile, Coyne, & Walsh, 2011; Krahe et al., 2012). An overall violent media consumption score was also computed for each participant by averaging the violent media use scores across the two media types. Other researchers have similarly computed a total mean score of violent media use across multiple media types (e.g., Friedlander et al., 2013, Gentile et al., 2011; Krahe et al., 2012).

Pornography consumption. Pornography use was measured using a single self-report item. *Pornography* was defined as sexually explicit content. Previous research assessing pornography consumption in adolescent populations has commonly used this definition of pornography, either alone or as part of a longer and more descriptive definition (e.g., Brown & L'Engle, 2009; Owens et al., 2012; Svedin, Akerman, & Priebe, 2011). Although there are many and more descriptive definitions of pornography throughout the literature (Owens et al., 2012), the current study relied on a simple and neutral definition as not to complicate interpretations and confuse students, as well as to circumvent any potential ethical dilemmas (e.g., posed by making reference to specific sexual activity).

Participants were asked to rate how often they consumed internet pornography on a 4-point Likert scale ranging from (1) Never, (2) Occasionally (monthly), (3) Frequently (weekly), to (4) Regularly (daily). This scale was developed for the purpose of the current study. Past research studies assessing pornography consumption have commonly used one-item measures as well as Likert-type scales with frequency ratings (e.g., Braun-Courville & Rojas, 2009; Carroll et al., 2008; Lo & Wei, 2005; Malamuth et al., 2012). Similar Likert-type scales with frequency ratings used to measure pornography consumption in young adult and youth populations report good internal consistencies ($\alpha = .68$, Brown & L'Engle, 2009; $\alpha = .76$, Carroll et al., 2008; $\alpha = .84$, Lo & Wei, 2005).

Meanwhile, the focus on internet pornography was warranted given that the internet is considered to be the primary medium through which adolescents gain access and are exposed to pornography today (Mitchell, Wolak, & Finkelhor, 2007). Adolescents' use of pornography across other media types (e.g., magazines, books, comics) is far less common and represents an outdated approach to the assessment of youths' pornography consumption in this day and age.

Internet pornography thus provided a more reliable and accurate measure of participants' exposure to pornography. With the growth of the internet, adolescents are now able to access pornography through various outlets, such as on their laptops, mobile phones, video games consoles, and other electronic devices. Internet pornography is also available in various forms (e.g., pornographic pictures, video clips, full-length movies, real-time and interactional) and encompasses a range of sexually explicit content (e.g., softcore/hardcore pornography, rape pornography, cartoon/anime pornography, reality pornography, multiple sexual partners; Owens et al., 2012). Thus, in these ways, assessing youths' exposure to pornography via the internet provided a more broad and comprehensive understanding of youths' consumption.

Following survey completion, the pornography consumption item was scored from 1 to 4, with higher scores indicating a greater frequency of consumption. Porn use was dichotomized and a "Non-porn users" group (i.e., score of 1) and a "Porn-users" group (i.e., scores of 2, 3, or 4) was created.

Violence-tolerant attitudes. To assess adolescents' attitudes towards sexual dating violence, two scales from the Attitudes Towards Dating Violence Scales (ATDVS; Price et al., 1999) were used. Collectively, the ATDVS are used to measure attitudes toward the use of various forms of dating violence, including psychological, physical, and sexual dating violence, by boys and by girls, respectively, and are appropriate for adolescents of all ages. The ATDVS consist of a total of six scales, three Attitudes Towards Male Dating Violence (ATMDV) Scales (i.e., Attitudes Towards Male Psychological Dating Violence Scale, 15 items; Attitudes Towards Male Physical Dating Violence Scale, 12 items; and Attitudes Towards Male Sexual Dating Violence Scale, 12 items) and three Attitudes Towards Female Dating Violence (ATFDV) Scales (i.e., Attitudes Towards Female Psychological Dating Violence Scale, 13 items; Attitudes

Towards Female Physical Dating Violence Scale, 12 items; and Attitudes Towards Female Sexual Dating Violence Scale, 12 items).

For the purpose of the current study, only the Attitudes Towards Male Sexual Dating Violence Scale (ATMDV-Sex) and the Attitudes Towards Female Sexual Dating Violence Scale (ATFDV-Sex) were used. The ATMDV-Sex Scale measures attitudes toward boys' use of sexual violence and abuse. Seven items from the total 12 were selected from this scale for inclusion in the survey (e.g., "A girl who goes into a guy's bedroom is agreeing to sex"). Meanwhile, the ATFDV-Sex Scale measures attitudes toward girls' use of sexual violence. Similarly, seven out of the total 12 items on this scale were selected for the current study (e.g., "It is alright for a girl to force her boyfriend to kiss her"). Participants rated each item on a 5-point Likert scale ranging from (1) Strongly disagree, (2) Mildly disagree, (3) Neither disagree nor agree, (4) Mildly agree, to (5) Strongly agree.

The ATDV Scales, including short forms (i.e., select items) of the scales, have been used extensively by various researchers (e.g., Luthra & Gidycz, 2006; McDermott & Lopez, 2013). The ATDV Scales have been validated in a large study of 823 Canadian students from grades 7, 9 and 11 (Price et al., 1999). The internal consistencies of the full ATMDV-Sex Scale and ATFDV-Sex Scale were assessed for boys and girls separately and were reportedly high: ATMDV-Sex Scale, $\alpha = .88$ for boys and $.79$ for girls; ATFDV-Sex Scale, $\alpha = .87$ for boys and $.78$ for girls. Providing evidence for their construct validity, both the ATMDV-Sex Scale ($r = -.59$ for boys, $r = -.45$ for girls) and the ATFDV-Sex Scale ($r = -.51$ for boys, $r = -.35$ for girls) were significantly correlated with the Attitudes Towards Women Scale for Adolescents measuring traditional attitudes toward gender roles for both male and female students. Support for the criterion-related validity of the two scales was also provided in that higher scores on the

ATMDV-Sex Scale were related to boys' past use of violence in dating relationships and to their having aggressive friends. Similarly, higher scores on the ATFDV Scales were also associated with girls' past use of dating violence (Price et al., 1999).

Following survey completion, the selected items on the ATMDV-Sex and ATFDV-Sex Scales were first scored from 1 to 5; these item scores were then added to obtain a total summed score for each scale ranging from 7 to 35. For each scale, higher scores indicated a greater acceptance of sexually abusive or violent behaviour. For the ATMDV-Sex Scale, survey items 2 and 3 were reverse scored. Meanwhile, survey items 8, 9, 12 and 14 for the ATFDV-Sex Scale were reverse scored. A total summed score was also computed across the ATMDV-Sex and ATFDV-Sex Scales to attain an overall measure of violence-tolerant attitudes toward male- and female-perpetrated sexual dating violence. For the current study, the internal consistency for the ATMDV-Sex Scale and ATFDV-Sex Scale were low, with Cronbach's alphas of .57 and .69, respectively. The internal consistency of the total attitude score was high at $\alpha = .81$. As such, only the total attitude score was used in the analyses.

Demographic information. In addition to measures of sexual cyber dating abuse, violent media use, pornography consumption, and violence-tolerant attitudes, the survey also gathered demographic information including the students' age, grade level, and gender.

Results

The results are divided into four parts. First, descriptive statistics were computed for media consumption, violent media consumption, pornography consumption, violence-tolerant attitudes, and dating abuse. Chi-square tests and one-way analyses of variance (ANOVA) were also conducted to assess for gender and grade differences on these variables. Next, a one-way ANOVA was performed to screen for univariate group differences in media and violent media

consumption, and violence-tolerant attitudes for dating abuse perpetration and victimization. A chi-square test was conducted to screen for a relationship between pornography consumption and dating abuse. Third, the results of two logistic regressions, one for perpetration and one for victimization, are described. And finally, analyses testing for the mediation of violence-tolerant attitudes are briefly discussed.

Before conducting the statistical analyses, the data was screened for normality. Several of the media variables, including video game consumption, violent video game consumption and total violent media consumption, as well as attitudes toward dating violence, were positively skewed. Square-root transformations were performed on all these variables to correct for non-normality. Dating abuse and pornography consumption were also positively skewed and were dichotomized. Music consumption was not included in the analyses due to difficulties obtaining violence ratings for this media type. Statistical analyses were conducted in SPSS version 22.

Descriptive Statistics

To begin the analyses, descriptive statistics were computed for media and violent media usage, pornography consumption, attitudes, and dating abuse on the non-transformed data. Gender and grade differences on these variables were then examined using chi-square tests and one-way ANOVA.

Cyber dating abuse. As shown in Table 1, overall, mean scores for dating abuse victimization and perpetration were relatively low. Although the majority of participants (76%) who were in a current romantic relationship or had been in one during the past year reported that they had never experienced cyber dating abuse, 24% of youth ($n = 27$) reported dating abuse victimization (i.e., reported experiencing at least one act of dating abuse rarely). The most frequently reported victimization item by participants was being threatened by a partner if they

did not send a sexual/naked photo of themselves (18% of participants), followed by being pressured by a partner to send a sexual/naked photo of themselves (12% of participants), being sent text messages, email, IM, chats, etc., to have sex or engage in sexual acts when the partner knew they did not want to (9% of participants), and being sent sexual/naked photos of one's partner that the partner knew they did not want (2% of participants). Twenty-eight percent of boys ($n = 11$) and 22% of girls ($n = 16$) reported experiencing sexual cyber dating abuse. Nineteen percent of students ($n = 7$) in intermediate grades reported victimization compared to 26% ($n = 20$) of senior students. No significant gender and grade differences were found in reported frequency of victimization.

Meanwhile, 26% of youth ($n = 29$) reported cyber dating abuse perpetration (i.e., reported perpetrating at least one act of dating abuse rarely). Similarly, the most frequently reported perpetration item by participants was threatening partners if they did not send a sexual/naked photo of themselves (15% of participants), followed by sending one's partner text messages, email, IM, chats, etc., to have sex or engage in sexual acts with him/her knowing that the partner did not want to (9% of participants), pressuring partners to send a sexual/naked photo of themselves (7% of participants), and sending partners sexual/naked photos of themselves that they knew the partner did not want (3% of participants). Sixty-two percent of boys ($n = 24$) compared to only 7% of girls ($n = 5$) reported dating abuse perpetration. Evidently, there were significant gender differences for perpetrators of dating abuse, $X^2(1, N = 113) = 40.18, p < .001$, with boys being highly more likely to perpetrate abuse than girls. Significant grade differences were also found for perpetrators, $X^2(1, N = 113) = 8.89, p < .01$, with students in senior grades reporting significantly more perpetration than students in intermediate grades (34% compared to 8%, respectively).

Violent media consumption. As shown in Table 1, participants reported a moderate level of total violent media consumption across TV shows and video games. Significant gender differences were found for both video game consumption, $F(1, 113) = 18.69, p < .001$, and violent video game consumption, $F(1, 113) = 20.70, p < .001$, with boys reporting significantly higher consumption than girls. Boys also consumed significantly more violent media overall compared to girls, $F(1, 113) = 2.94, p < .05$. No significant gender differences were found for TV consumption and violent TV use. Significant grade differences were observed only in TV consumption, $F(1, 113) = 5.14, p < .05$, with students in intermediate grades reporting significantly more consumption than senior students.

Pornography consumption. As shown in Table 1, overall, participants reported slightly less than occasional consumption of pornography. Although the majority of participants (62%, $n = 70$) reported never consuming pornography, 38% ($n = 43$) of the sample reported at least occasional porn consumption. The majority of boys (77%, $n = 30$) consumed pornography, while the majority of girls (82%, $n = 61$) reported never consuming pornography and only 18% of girls ($n = 13$) reported porn consumption. Boys reported significantly more consumption of pornography than girls, $X^2(1, N = 113) = 38.17, p < .001$. Significant grade differences were also found, $X^2(1, N = 113) = 11.13, p < .01$, such that senior students consumed significantly more pornography than students in intermediate grades.

Violence-tolerant attitudes. As shown in Table 1, overall, participants reported relatively low violence-tolerant attitudes. Significant gender differences were observed in overall attitudes toward dating violence, $F(1, 113) = 8.60, p < .01$, with boys reporting more tolerant attitudes than girls. Grade differences in overall attitudes were non-significant.

In assessing for relationships between violence-tolerant attitudes and the violent media consumption variables, a significant relationship was found only between attitudes and violent video game consumption, $r = .28, p < .01$, such that more frequent consumption of violent video games was associated with more tolerant attitudes toward dating violence. Consumption of violent TV shows was not significantly associated with attitudes, and a trend significant relationship was observed between attitudes and total violent media consumption, $r = .18, p = .06$. Although adolescents who used pornography scored higher on violence-tolerant attitudes ($M = 4.90, SD = .84$) compared to adolescents who did not use porn ($M = 4.72, SD = .76$), these differences were not significant, $F(1, 113) = 1.41, p = .24$.

Table 1
Means and Standard Deviations for Dating Abuse, Media Influences, Pornography, and Violence-Tolerant Attitudes

Variables (range)	Males ($n=39$) $M (SD)$	Females ($n=74$) $M (SD)$	Total ($n=113$) $M (SD)$
Cyber Dating Abuse (0-12)			
Victimization	.69 (1.40)	.62 (1.54)	.65 (1.49)
Perpetration	1.36 (1.37) ^a	.19 (.79) ^b	.59 (1.16)
Media Consumption (0-4)			
Television Shows	2.26 (.85)	2.27 (.96)	2.27 (.92)
Video Games	1.80 (1.22) ^a	.82 (1.09) ^b	1.16 (1.22)
Violent Media Consumption (0-20)			
Total Violent Media	6.08 (3.63) ^a	4.41 (3.19) ^b	4.99 (3.43)
Violent Television Shows	5.62 (3.21)	5.94 (3.74)	5.83 (3.56)
Violent Video Games	6.83 (5.23) ^a	2.87 (4.35) ^b	4.25 (5.02)
Pornography Consumption (1-4)	2.44 (1.00) ^a	1.23 (.54) ^b	1.65 (.93)
Violence-tolerant Attitudes (14-70)	26.51 (8.73) ^a	22.00 (7.14) ^b	23.56 (7.98)

Note. ^{a, b}Significant gender differences are indicated by different letter subscripts.

Univariate Group Differences for Perpetration and Victimization

A series of one-way ANOVA were performed to screen for univariate group differences in media consumption, violent media consumption, and violence-tolerant attitudes for dating abuse perpetration and victimization (see Table 2).

Violent media and dating abuse. Contrary to predictions, a trend toward significance was evident for violent TV consumption, $F(1, 113) = 3.93, p = .05$, and overall violent media use, $F(1, 113) = 3.59, p = .06$, such that participants who experienced dating abuse consumed less violent TV and overall violent media compared to participants who did not experience abuse. Consistent with hypotheses, participants who perpetrated dating abuse consumed significantly more video games, $F(1, 113) = 9.84, p < .01$, as well as significantly more violent video games, $F(1, 113) = 9.89, p < .01$, than participants who did not report perpetration. A trend toward significance was evident for overall violent media use, $F(1, 113) = 3.14, p = .08$, such that participants who perpetrated abuse consumed more violent media overall compared to non-perpetrators. No significant group differences were found in TV consumption and violent TV consumption for perpetration.

Violence-tolerant attitudes and dating abuse. Consistent with hypotheses, results showed that participants who experienced dating abuse had significantly more tolerant attitudes toward dating violence compared to participants who were not victimized, $F(1, 113) = 9.66, p < .01$. Likewise, participants who perpetrated dating abuse also had significantly more violence-tolerant attitudes than non-perpetrators, $F(1, 113) = 6.71, p < .05$.

Pornography and dating abuse. A chi-square test for association was conducted between pornography consumption and sexual cyber dating abuse victimization and perpetration (see Table 3). In support of hypotheses, results showed that there was a statistically significant

association between consumption of pornography and dating abuse perpetration, $X^2(1, N = 113) = 50.15, p < .001$, and that this association was strong, $\phi = .67, p < .001$. Porn-users were much more likely to perpetrate dating abuse in comparison to non-porn users, such that a high of 63% of porn-users reported perpetration compared to a meager 3% of non-porn users. Meanwhile, contrary to hypotheses, pornography consumption was not significantly associated with dating abuse victimization, $X^2(1, N = 113) = .11, p = .74$.

Table 2

One-Way Analysis of Variance (ANOVA) Between Media Influences and Violence-Tolerant Attitudes for Dating Abuse Victimization and Perpetration

Risk Factors	Victimization			Perpetration		
	Yes Mean (SD)	No Mean (SD)	<i>F</i>	Yes Mean (SD)	No Mean (SD)	<i>F</i>
Media Consumption						
Television Shows	2.15 (1.03)	2.30 (.88)	.58	2.45 (.87)	2.20 (.93)	1.56
Video Games	.76 (.74)	.82 (.70)	.16	1.16 (.69)	.69 (.68)	9.84**
Violent Media Consumption						
Total Violent Media	1.80 (1.00)	2.15 (.79)	3.59	2.30 (.91)	1.98 (.82)	3.14
Violent Television Shows	4.61 (3.61)	6.19 (3.49)	3.92	5.97 (3.56)	5.79 (3.58)	.05
Violent Video Games	1.41 (1.50)	1.53 (1.40)	.14	2.21 (1.42)	1.27 (1.34)	9.89**
Violence-tolerant Attitudes	5.19 (.74)	4.66 (.78)	9.66**	5.11 (.77)	4.68 (.78)	6.71*

Note. Dating abuse victimization and perpetration were dichotomized. $df=1$.

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

Table 3

Frequencies, Percentages and Chi-Square Values Applied to Dating Abuse Victimization and Perpetration as Related to Pornography Consumption

Pornography Consumption	Victimization			Perpetration		
	Yes (%)	No (%)	X^2	Yes (%)	No (%)	X^2
Porn-Users ($n=43$)	11 (26%)	32 (74%)	.11	27 (63%)	16 (37%)	50.15***
Non-porn Users ($n=70$)	16 (23%)	54 (77%)		2 (3%)	68 (97%)	

Note. Pornography consumption, and dating abuse victimization and perpetration were dichotomized. $df=1$.

*** $p < .001$.

Interaction between gender and pornography for perpetration. In light of significant gender differences observed in pornography consumption, a two-way factorial ANOVA was conducted to assess for an interaction effect between gender and pornography consumption on dating abuse perpetration. Results showed that there was a statistically significant interaction between gender and pornography use on perpetration, $F(1, 113) = 6.08, p < .05$, partial $\eta = .05$, such that males who consumed pornography ($M = .77, SD = .43$) were significantly more likely than female porn-users ($M = .31, SD = .48$) to perpetrate dating abuse. Figure 1 shows the mean perpetration scores for porn-users and non-porn users based on gender.

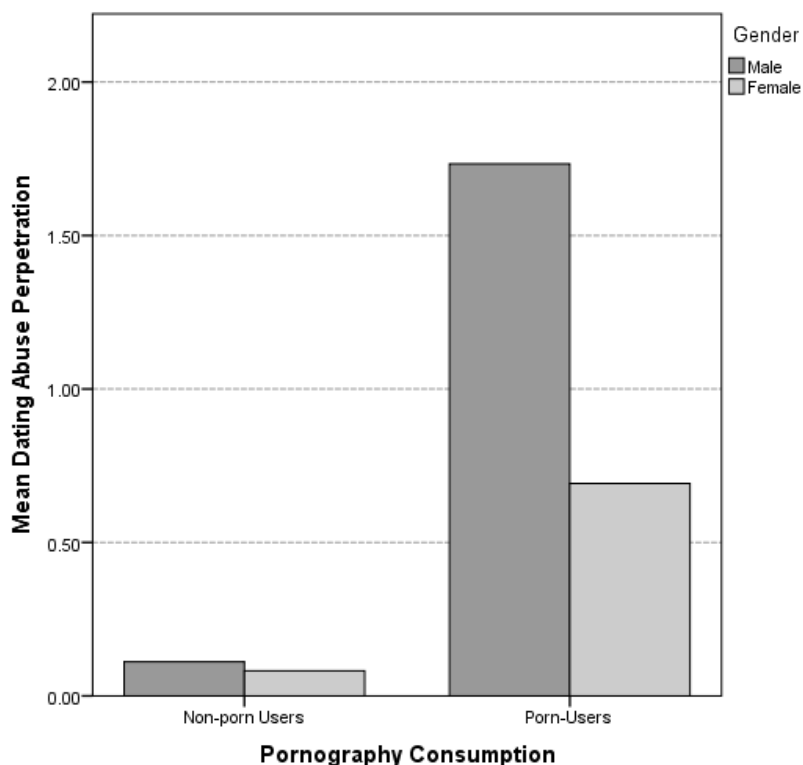


Figure 1 Mean Perpetration for Porn-Users and Non-porn Users Based on Gender

Logistic Regression Predicting Likelihood of Perpetration and Victimization

Two multivariate logistic regression analyses were conducted, one for dating abuse perpetration and another for victimization, in order to ascertain which variables best predicted the likelihood that participants perpetrate and experience dating abuse, respectively. Only those factors that were significantly associated with dating abuse perpetration and victimization and that were trend significant were entered as predictors for each regression analysis. Backward stepwise elimination was used.

The following predictors were entered simultaneously into the regression analysis for dating abuse perpetration: gender, grade, video game consumption, total violent media use, violent video game consumption, pornography consumption, and violence-tolerant attitudes. The final logistic regression model was statistically significant, $X^2(2, N = 113) = 63.36, p < .001$. The model explained 64% (Nagelkerke R^2) of the variance in dating abuse perpetration and correctly classified 89% of cases. Sensitivity was 82%, specificity was 92%, positive predictive value was 77%, and negative predictive value was 94%.

Of the six predictor variables, only gender and pornography consumption were statistically significant (see Table 4). Consistent with hypotheses, pornography consumption was associated with an increased risk of perpetrating sexual cyber dating abuse. Porn-users had 23 times higher odds of perpetrating dating abuse compared to non-porn users. Meanwhile, being male was associated with an increased likelihood of perpetrating cyber dating abuse, such that males had nine times higher odds of perpetrating compared to females. Inconsistent with hypotheses, however, the violent media consumption variables and violence-tolerant attitudes were not significant predictors of the likelihood of dating abuse perpetration.

Table 4
Final Model for Logistic Regression Predicting Likelihood of Dating Abuse Perpetration based on Gender and Pornography Consumption

Predictors	B	SE	Wald	df	Odds Ratio	95% CI for Odds Ratio	
						Lower	Upper
Gender ^a	-2.23**	.69	10.29	1	.11	.03	.42
Pornography ^b	3.14***	.83	14.43	1	23.21	4.58	117.55
Constant	-1.97	.81	5.99	1	.14		

Note. ^aGender is for females compared to males. ^bPornography consumption is for porn-users compared to non-porn users.

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

Meanwhile, the following factors were entered into the regression for dating abuse victimization: violent TV consumption, total violent media consumption, and violence-tolerant attitudes. The final logistic regression model was statistically significant, $X^2(2, N = 113) = 13.13$, $p < .01$. The model explained 17% (Nagelkerke R^2) of the variance in dating abuse victimization and correctly classified 77% cases. Sensitivity was low at 8%, specificity was 97%, positive predictive value was 40%, and negative predictive value was 78%. Of the three predictor variables, violent TV consumption and violence-tolerant attitudes emerged as statistically significant in the final model (see Table 5).

Consistent with hypotheses, increasing violence-tolerant attitudes were associated with an increased likelihood of experiencing dating abuse. Surprisingly, however, increasing violent TV consumption was associated with a decreased likelihood of dating abuse victimization. Also inconsistent with hypotheses, total violent media consumption was not a significant predictor of the likelihood of dating abuse victimization.

Table 5
Final Model for Logistic Regression Predicting Likelihood of Dating Abuse Victimization based on Violent Media Consumption and Violence-Tolerant Attitudes

Predictors	<i>B</i>	SE	Wald	<i>df</i>	Odds Ratio	95% CI for Odds Ratio	
						Lower	Upper
Violent Media Consumption							
Violent Television Shows	-.16*	.08	4.04	1	.85	.73	1.00
Violence-tolerant Attitudes	.09**	.03	8.46	1	1.09	1.03	1.16
Constant	-2.55	.85	9.11	1	.08		

Note. * $p < .05$. ** $p < .01$.

Analyses Testing Mediation of Attitudes

To examine whether violence-tolerant attitudes mediated the relationship between violent media consumption and dating abuse, a series of regression analyses were conducted. We only tested whether attitudes mediated the relationship between participants' use of violent video games and perpetration based on ANOVA results that demonstrated the following: only violent video game consumption was significantly associated with perpetration; none of the media variables were significantly associated with victimization; and correlational analyses demonstrated that violence-tolerant attitudes were only significantly associated with violent video game use. We did not test whether attitudes mediated the impact of pornography on dating abuse outcomes in light of the insignificant relationship observed between pornography and attitudes.

To assess whether attitudes mediated the relationship between participants' use of violent video games and perpetration, the following steps were undertaken: first, we performed a logistic regression to examine whether violent video game consumption individually predicted the likelihood of dating abuse perpetration. Results showed that violent video game use did in fact predict perpetration, $p < .01$. Next, we conducted a simple linear regression analysis demonstrating that violent video game consumption individually predicted violence-tolerant attitudes, $p < .01$. Third, we entered both the violent video game consumption and attitudes

variables in a logistic regression to confirm that attitudes was a significant predictor of dating abuse perpetration while controlling for violent video game use, and that adding attitudes into the regression lessened the predictive value of violent video game use on perpetration. This third step showed that, although adding attitudes into the regression very slightly lessened the impact of violent video game use on perpetration (i.e., from a significance level of $p < .01$ to $p < .05$), attitudes was not significantly associated with perpetration, $p = .12$, once violent video game use was controlled for. Thus, we concluded that, contrary to hypotheses, attitudes did not mediate the relationship between violent media and pornography consumption and dating abuse.

Discussion

The main objective of the present study was to examine the relationship between exposure to violent media and pornography, and the perpetration and experience of sexual cyber dating abuse among adolescents. A second objective was to assess the relationship between violence-tolerant attitudes and cyber dating abuse perpetration and victimization. Third, we examined whether violence-tolerant attitudes mediated the relationship between violent media and pornography consumption and dating abuse.

Compared to previous research that has documented a prevalence of 11% for sexual cyber dating abuse victimization and 3% for perpetration (Zweig et al., 2013), rates of sexual cyber dating abuse in this sample were high, with 24% of youth reporting victimization and 26% reporting perpetration. Consistent with past research (Zweig et al., 2013), males made up the majority of perpetrators of sexual cyber dating abuse. Contrary to previous research (Zweig et al., 2013), however, females did not report more sexual cyber dating abuse victimization than males.

The most critical finding was observed for pornography consumption. Consistent with the hypothesized findings, pornography consumption was significantly associated with an increased risk of perpetrating sexual cyber dating abuse. Contrary to hypotheses, however, pornography use did not significantly predict the likelihood of experiencing sexual cyber dating abuse and was not related to an increased risk of victimization.

Although not initially predicted, findings showed that gender also significantly predicted the risk of perpetrating sexual cyber dating abuse, such that being male increased the risk of perpetration. Similarly outside the scope of this study's predictions, a significant interaction between gender and pornography use on dating abuse perpetration was observed, such that gender moderated the impact of porn use on perpetration and males who consumed pornography were significantly more likely than female porn-users to perpetrate sexual cyber dating abuse.

Meanwhile, contrary to the hypothesized findings, increasing violent media consumption was ultimately not associated with an increased risk of sexual cyber dating abuse victimization or perpetration. In contrast to hypotheses, increasing violent TV consumption was significantly associated with a decreased likelihood of victimization. Based on univariate analyses, however, cyber dating abuse perpetration was significantly associated with an increased consumption of violent video games, and a trend toward significance was evident for overall media use, such that participants who perpetrated dating abuse consumed more violent media overall compared to non-perpetrators. These univariate analyses also showed that, contrary to predictions, none of the violent media variables were significantly associated with dating abuse victimization, and a trend toward significance was evident for violent TV consumption and overall violent media use, such that participants who experienced dating abuse actually consumed less violent TV and less overall violent media compared to participants who did not experience abuse.

Further, consistent with hypotheses, study results showed that increasing violence-tolerant attitudes were significantly associated with an increased risk of experiencing sexual cyber dating abuse. However, contrary to hypotheses, attitudes towards dating violence were ultimately not a significant predictor of the likelihood of dating abuse perpetration. In contrast, results of the univariate analyses showed that, consistent with hypotheses, participants who both experienced and perpetrated dating abuse had significantly more tolerant attitudes toward dating violence compared to participants who were not victimized and did not perpetrate abuse, respectively. Finally, contrary to hypotheses, violence-tolerant attitudes did not mediate the relationship between violent media and pornography consumption and dating abuse.

Pornography as a Risk Factor for Dating Abuse

One of the goals of the current study was to examine the relationship between youths' exposure to pornography and their perpetration and experience of sexual cyber dating abuse. A paucity of research has investigated the relationship between pornography consumption and teen dating abuse, and no known research to date has studied pornography as a potential risk factor for cyber dating abuse. This study adds to the literature by suggesting that pornography consumption is an important risk factor for adolescents' perpetration of sexual cyber dating abuse. This finding is consistent with prior research that has documented a relationship between adolescents' consumption of pornography with their perpetration of sexual violence (e.g., Bonino et al., 2006; Brown & L'Engle, 2009; Malamuth & Huppert, 2005) and "sexting" behaviours (i.e., exchange of sexually explicit messages/pictures via the use of technology/new media; Van Ouytsel, Ponnet, & Walrave, 2014). Also consistent with past research implicating male adolescents as the primary consumers of pornography ("Facts and Figures", 2013), this study found that the majority of porn-users were male and that a relatively high proportion of youth

(38%) who were in a current or recent dating relationship reported using pornography. That a high proportion of youth consumed pornography, and that pornography is implicated as an important risk factor for dating abuse perpetration, suggests that pornography plays an important role in the sexual education of adolescents and that teens use pornography as important source of information about sexually appropriate behaviours in their dating relationships.

In line with social cognitive theory, adolescents may be viewed as imitating the sexually aggressive behaviours of pornographic media images observed online and that serve as potent models for romantic and sexual behaviour (Manganello, 2008). Adolescents may also observe these pornographic media images being rewarded for their sexually aggressive behaviour (e.g., romantic partner giving in to sex after being pressured, threatened or coerced), which increases the likelihood that these behaviours are modelled in their own relationships, either in person or through the use of social media. Social cognitive theory also suggests that adolescents are more likely to imitate these sexually aggressive behaviours if they are able to identify with or place a high value on the observed role models, as might be the case with teenage/young adult pornographic media images, as well as valued, and sometimes glorified, sexual entertainment figures (e.g., celebrities, porn stars).

By observing sexually aggressive media images, youth may learn that sexual aggression, as might be expressed through social media outlets (e.g., pressuring or threatening a partner to send a sexual photo/have sex), is an acceptable and effective means of obtaining a desired goal (e.g., the sexual photo, sex, or other goal) and resolving conflict in their dating relationships (Manganello, 2008). In addition to modelling these sexually aggressive behaviours viewed through pornographic mediums, adolescents' use of sexual cyber dating aggression may also be

positively reinforced (e.g., praised) by significant others in their environment (e.g., peers), which may serve to increase the likelihood that these behaviours re-occur and are maintained over time.

It is notable that more youth in this study reported consuming pornography than perpetrating dating abuse (38% compared to 24%, respectively). This suggests that some adolescents are exposed to pornography but do not transfer over its effects to their romantic relationships. Further work on the protective factors operating in these circumstances is clearly needed. That not all youth who consume pornography perpetrate abuse is supported by research suggesting that pornography exposure is only related to the perpetration of sexual aggression in adolescents who also possess a combination of predisposing risk factors (e.g., impulsive/antisocial tendencies, hypermasculinity, hostility, childhood history of abuse; Ybarra & Mitchell, 2005). This research suggests that for the majority of males, frequent exposure to sexually explicit material is not linked to increased levels of sexual aggression. However, among males who have predisposing risk levels towards aggressive sexual behaviour, those who frequently consume pornography have been found to have more than four times greater levels of sexual aggression compared to their peers who infrequently consume porn (Ybarra & Mitchell, 2005).

In line with this then, it is likely that for those 63% of porn-users who were found to perpetrate dating abuse in this study, other risk factors not assessed in the survey were also at play. That such a high proportion of adolescent porn-users perpetrated abuse might also be better understood by taking into account research that supports adolescents' greater susceptibility to the negative impact of pornography exposure in light of immature neurological development related to executive functioning, decision-making, impulsivity, and affect regulation compared to adults

(Yurgelun-Todd, 2007), as well as adolescents' lack of or lower sexual experience and familiarity with novel adult behaviour (Romer, 2010).

Meanwhile, although the current study provides support for the relationship between pornography use and dating abuse perpetration, it did not find a significant relationship between pornography and sexual cyber dating abuse victimization. Although this is inconsistent with some previous research that has demonstrated a relationship between adolescents' use of porn and their experiences of sexual violence and harassment (Bonino et al., 2006; Franklin, 2010), research into the impact of pornography on sexual victimization experiences is limited, and the bulk of literature has examined the impact of pornography on the perpetration of sexually aggressive behaviours (e.g., Bonino et al., 2006; Brown & L'Engle, 2009; Malamuth & Huppert, 2005). Clearly, more research is needed to better understand if and how pornography is related to victimization experiences, including sexual cyber dating abuse victimization.

Notably, it is critical that we are careful in how we interpret these findings regarding pornography. Although pornography was found to be a significant predictor of the probability of perpetrating dating abuse, this is not to say that a causal relationship exists. Research suggests that pornography can also have positive effects on youth in terms of providing them with a source of pleasure, sexual information and enhanced sexual knowledge, as well as a means of exploring their sexuality (Hald & Malamuth, 2008), and that it may only be problematic if it is their primary and only sexual educator. Additionally, other variables not accounted for in this study (e.g., domestic violence exposure, peer influences, personality factors; Capaldi et al., 2012) may have also contributed to dating aggression and confounded results. Moreover, it might not be that pornography has a direct impact on perpetration, but that there are other intertwining

factors and mechanisms through which porn influences perpetration (e.g., attitudes toward sexual aggression, sexual/gender attitudes; Brown & L'Engle, 2009).

Surprisingly, however, this study found that pornography consumption was not significantly associated with our measure of violence-tolerant attitudes, and attitudes did not mediate the impact of pornography on dating abuse. This is inconsistent with past research that supports a relationship between more frequent pornography consumption and more accepting attitudes toward sexually aggressive behaviours (e.g., Malamuth et al., 2012). Further research is needed to clarify these discrepant findings, to understand how pornography may impact adolescents' attitudes toward sexual cyber dating aggression specifically, and how pornography leads to an increased risk of dating abuse perpetration.

Gender as a Risk Factor for Dating Abuse Perpetration

The present study also contributes to the literature by demonstrating that gender, and specifically, being male, is a significant risk factor for the perpetration of sexual cyber dating abuse among teens. This finding is consistent with the limited existing literature on cyber dating abuse showing that males are significantly more likely than females to perpetrate sexual cyber dating abuse (i.e., 4% compared to 2% for females; Zweig et al., 2013). This study even further highlighted these gender differences in perpetration, showing that a vast majority of 62% of boys compared to only 7% of girls were perpetrators.

These results are in line with research suggesting that while both genders experience and perpetrate dating violence, and adolescent dating violence is often bidirectional with both dating partners perpetrating and sustaining abuse, males and females are abusive in different ways (Williams, Connolly, Pepler, Craig, & Laporte, 2008). Zweig and colleagues indicate that while boys perpetrate more sexual cyber dating abuse, girls perpetrate more non-sexual cyber dating

abuse (e.g., spreading rumors, using partner's social networking account without permission, writing nasty things about partners on social networking sites). Meanwhile, the literature on non-cyber dating violence also shows that while girls report perpetrating more physical dating violence compared to boys, and boys report more physical victimization, boys, in turn, report perpetrating more sexual dating violence (e.g., sexual coercion/assault) and girls more sexual victimization (O'Leary, Smith Slep, Avery-Leaf, & Cascardi, 2008; Young, Grey, & Boyd, 2009).

That boys were substantially more likely to perpetrate sexual cyber dating abuse compared to girls can, in part, be understood in the context of male gender role development and socialization that adheres to traditional masculine ideology. Gender roles are defined as "normative behaviors and attitudes which are expected from individuals, based on their biological sex, and which are often learned through the socialization process" (Ben-David & Schneider, 2005, p. 386). Gender plays an important role in influencing behaviour by shaping how individuals interact with one another (Larsen & Long, 1988). Social cognitive theory regards gender identity and roles as a set of behaviours and attitudes that children learn at a young age from observing others (i.e., role models) and subsequently imitating and internalizing their behaviour (Bussey & Bandura, 1999). According to this theory, gender roles are fostered through rewards and punishments children experience, either directly or vicariously, for gender-appropriate and gender-inappropriate behaviour. As such, through this modelling process, males are taught and encouraged to behave in ways that are considered traditionally "masculine". For example, it is gender-appropriate for males to embody dominance, aggression, and sexual assertiveness. Females, on the other hand, may learn that appropriate and "feminine" behaviour for their gender includes being passive and sexually submissive (Franklin, 2010). As such, it is

argued that males may be more likely to engage in sexually aggressive types of behaviour principally because more males than females identify with the masculine gender role (Poppen & Segal, 1988). Homosexual adolescents in same-sex relationships may also differ in whether they identify with a more stereotypically masculine or feminine role (Sanchez, Greenberg, Ming Liu, & Vilain, 2009).

Research also suggests that gender role differentiation intensifies during adolescence, with boys and girls trying out new ways of thinking and acting in romantic relationships (Lundgren & Amin, 2015). Adolescent boys may experience increased pressure by these societal and gendered norms and by significant people in their lives (e.g., male peers, coaches, paternal figures) to prove or assert their masculinity and may, in turn, resort to pressuring their partners, via social media, to have sex or send sexual photos. Research supports the relationship between inequitable and traditional gender roles, with males as the dominant aggressor and females as passive participants, with sexually aggressive behaviour in males (Owens et al., 2012).

In addition, although adolescent boys may be aware of the sexually aggressive nature of pressuring a dating partner to send a sexual photo, they may, nonetheless, feel more comfortable with reporting such behaviour in light of gendered norms. In contrast, females may refrain from engaging in, or at least from reporting these behaviours, as to do so may portray gender-inappropriate sexual aggressiveness on their part. It has been suggested that there may be a double standard between boys and girls, such that while a boy caught sending a sexual picture of himself may be regarded as a "boastful stud", girls are seen as having loose morals, are criticized as "sluts", and are shamed for these behaviours (Ringrose, Harvey, Gill, & Livingstone, 2013). Of course, this is not to say that females are not engaging in these behaviours themselves.

Further investigation is needed to better understand what may differentiate the small minority of females who report perpetrating sexual cyber dating abuse from females who do not.

Further, although this study showed that being male increased the risk of sexual cyber dating abuse perpetration, as is consistent with past research on both cyber and non-cyber sexual dating abuse, being female did not increase the risk of victimization. In contrast, this is inconsistent with the cyber and non-cyber literature that contends that females are more likely than males to experience both sexual cyber dating abuse and sexual violence at the hands of their dating partner (Young et al., 2009; Zweig et al., 2013). Naturally, there may be other factors at play other than being female that increase the risk of sexual cyber dating abuse victimization (e.g., depression, anger/hostility; Zweig et al., 2013). Contradictory and inconclusive findings in the literature regarding gender differences in adolescent dating violence perpetration and victimization (e.g., Hickman, Jaycox, & Aronoff, 2004) suggest that the role of gender in these phenomena is not fully understood. Further research is needed to clarify gender differences in the perpetration and experience of sexual cyber dating abuse, as well as explore the potentially bidirectional nature of this type of dating abuse.

Gender as a Moderator in the Relationship Between Pornography and Perpetration

This study also makes a valuable contribution to the literature by suggesting that gender serves as a moderator in the relationship between pornography consumption and sexual cyber dating abuse perpetration, such that males who consume porn are more likely than female porn-users to perpetrate abuse. That the relationship between pornography consumption and dating abuse perpetration is especially pertinent for males is consistent with this study's finding and with the research supporting males' higher consumption of pornography and the highly gendered nature of porn use, at least based on self-reports ("Facts and Figures", 2013; Owens et al., 2012).

Meanwhile, research also suggests that although both males and females consume pornography, males are more likely to consume more hardcore, aggressive, and male-dominant pornography (e.g., sleep porn, drunk porn; Hald, 2006). According to Brown and L'Engle (2009), pornography reinforces gender roles around male dominance and female submission, and beliefs of women as sex objects. That adolescent boys are consuming more pornography, as well as more aggressive pornography, would suggest that they receive greater exposure to these gendered and aggression-tolerant messages than female porn-users, and may thus, subsequently develop more gender inequitable attitudes and violence-tolerant beliefs that increase the risk of perpetration. In line with this, the study supported males' more violence-tolerant attitudes compared to females.

Also, since more boys than girls are likely to identify with the traditional masculine gender role (Poppen & Segal, 1988), and thus, with the male pornographic figure who most often perpetrates sexual aggression, the consumption of pornography may not have as much of an impact on girls in terms of increasing their risk of perpetration. In contrast, reinforced gender role attitudes around the sexual objectification of women and female submission may increase the risk of victimization for girls who are more likely to identify with the feminized, and most often, victimized, pornographic image (Franklin, 2010).

This rationale may also apply to adolescents in same-sex dating relationships who consume homosexual pornography. Homosexual pornography similarly possesses themes of dominance and submission, with select porn characters taking on a more stereotypically masculine role in dominant positions and others a more feminine role in submissive positions (Kendall, 2004). Adolescents in same-sex relationships may also differ in whether they identify with a more masculine or feminine role (Sanchez et al., 2009), frequency of pornography

consumption, and types of pornography exposed to relative to their partner. This differential exposure can also mean that one partner is exposed to and internalizes more messages supportive of inequitable and aggressive dynamics in romantic relationships, which may make that partner more likely to perpetrate sexual cyber dating abuse than the other.

Moreover, further shedding light on the differential impact of porn on males and females, research also suggests that adolescent boys' consumption of pornography is linked to greater sexual uncertainty and more positive attitudes toward uncommitted sexual exploration (Peter & Valkenburg, 2008). Studies also show that males are generally more likely to be psychologically aroused by pornography and report being exposed to porn at an earlier age (Hald, 2006). These gender differences may potentially be implicated in boys' greater susceptibility to the influence of pornography. It is important to note that although the impact of porn use on male attitudes and behaviour has been well-researched, less efforts have investigated the influence of pornography on females (Franklin, 2010). Research investigating how pornography may impact males and females differently will lead to a better understanding of the differential impact of pornography on cyber dating abuse perpetration between males and females.

Notably, it is also possible that male porn-users possessed more risk factors for sexual cyber dating abuse perpetration that may have contributed to their greater perpetration scores compared to females. Likewise, female porn-users may have possessed more protective factors that buffered perpetration. Examining differences and similarities in risk and protective factors for cyber dating abuse perpetration between male and female porn-users will contribute to a better understanding of the role that gender plays in the relationship between porn and cyber dating abuse perpetration.

Violent Media as a Risk Factor for Dating Abuse

The current study also aimed to investigate the relationship between exposure to violent media and the perpetration and experience of sexual cyber dating abuse among teens. Although the literature has documented evidence of the impact of media violence on many forms of youth aggression (e.g., Anderson et al., 2003; Krahe et al., 2012), and there is initial support for the effect of violent media use on teen dating violence (Connolly et al., 2010; Friedlander et al., 2013), this is one of the first few studies to extend media research to the domain of adolescent dating violence, and the first known study to examine the relationship between violent media and cyber dating abuse. The current study adds to the literature by providing partial support for the role of violent media in adolescents' perpetration and experience of sexual cyber dating abuse.

This study found that youth who perpetrated sexual cyber dating abuse consumed more violent video games and a trend towards more violent media overall. Through the lens of social cognitive theory, adolescents may be viewed as modelling the aggressive behaviours observed in video games in their romantic relationships. This finding is consistent with past research supporting a relationship between increased exposure to media aggression, including violent video games, with aggressive behaviour and dating violence in adolescents (e.g., Anderson et al., 2003; Friedlander et al., 2013). Research also supports boys' higher consumption of violent video games (Arnett, 2007), as well as youths' generally high use of violent media (Media Education Foundation, 2005), as demonstrated in this study.

Despite support for perpetrators' higher use of violent video games, ultimately, violent media, including violent video games, did not predict the likelihood of dating abuse perpetration. Surprisingly, youth who consumed more violent TV were at a decreased risk of experiencing sexual cyber dating abuse, and a trend towards significance in the opposite expected direction

was also observed for total violent media use. These findings are inconsistent with previous research that has found a predictive relationship between higher media usage across multiple media types (e.g., television shows, video games, music, movies, magazines, Internet) and an increased likelihood of both perpetrating and experiencing dating violence among adolescents (Connolly et al., 2010; Friedlander et al., 2013). The opposite findings for violent TV consumption are particularly surprising in light of research suggesting that the most consistent evidence for the negative impact of the media on aggression is for violent TV shows (Anderson et al., 2003). Low sensitivity for the victimization regression model may be implicated in this finding, such that only 8% of participants who experienced cyber dating abuse were also predicted by the model to have experienced it.

Although these findings are incongruent with research focusing specifically on adolescent dating violence, that increased media violence exposure was not predictive of increased dating abuse perpetration or victimization is consistent with research that has failed to find a relationship between violent media and aggressive behaviours in youth more generally (e.g., Ferguson et al., 2013). Ferguson (2011) contends that much of the research into media violence (i.e., video gaming) has failed to control for other variables (e.g., mental health, intrinsic violence motivation, peer delinquency, family life) that may impact aggressive behaviour, and that youth who may already be at risk of aggression may be more likely to choose to consume violent media. According to Ferguson, these other risk factors, as opposed to violent media, cause aggressive behaviour. Other research also contends that violent media effects can best be understood within a risk and resilience framework that considers multiple factors that facilitate or inhibit aggression (e.g., prior aggression, parental monitoring, hostile attribution bias; Gentile & Bushman, 2012).

Various methodological differences between the current study and former research supporting a relationship between violent media and an increased likelihood of dating violence (e.g., Connolly et al., 2010; Friedlander et al., 2013) might, in part, help explain this study's discrepant findings. For instance, while research examining media effects on dating violence has solely employed longitudinal designs, the current study utilized a cross-sectional design. It is possible then that cross-sectional designs provide too narrow of a focus to adequately assess for this relationship and are insensitive to the lapse of time that might be needed to better capture the impact of violent media exposure on aggressive behaviour. This is contraindicated, however, since both longitudinal and cross-sectional designs have demonstrated media effects on aggression (Anderson et al., 2003). Further, while previous research has focused on physical dating violence, this study focused on sexual dating aggression occurring via the use of social media. It might be possible then that media violence has more of a direct effect on physical aggression as opposed to cyber forms of aggression. The current study also measured media violence primarily based on acts of physical aggression (e.g., fighting, murder, rape) and not cyber forms of aggression; as such, these media effects might not be as transferable to cyber dating abuse, and a media aggression measure that incorporates, and perhaps, emphasizes, sexual cyber aggression specifically is needed. Variations in sample size, breadth and genres of media types assessed, as well as media violence scoring procedures are other methodological differences that might be implicated in the study's contradictory results. Ultimately, taken together, these contradictory findings clearly warrant the need for further research in this area.

Violence-tolerant Attitudes: Risk Factor for Dating Abuse and Mediation

The current study also contributes to the literature by extending research examining the role of violence-tolerant attitudes in adolescent dating violence to the unique domain of cyber dating abuse. This study's findings supporting violence-tolerant attitudes as a risk factor for sexual cyber dating abuse victimization is consistent with the existing literature that shows a relationship between teens' more accepting attitudes toward dating violence and their increased risk of being a victim of dating aggression, including sexual dating abuse (Ali, Swahn, & Hamburger, 2011; Thompson, 2014). In line with social cognitive theory, cognitive processes, such as attitudes that are tolerant of and that normalize dating aggression, impact behaviour and increase one's vulnerability of experiencing aggression (Franklin, 2010; Friedlander et al., 2013).

Meanwhile, that attitudes ultimately did not predict perpetration is inconsistent with an abundance of literature that supports violence-tolerant attitudes as one of the most consistent predictors of dating abuse perpetration (e.g., Capaldi et al., 2012; Foshee et al., 2001; Shen et al., 2012; Temple et al., 2013; Williams et al., 2008). Likewise, that violence-tolerant attitudes did not mediate the relationship between violent media consumption and cyber dating abuse is also inconsistent with previous research supporting the mediating role of attitudes toward violence in the longitudinal relationship between aggressive media and dating violence (Connolly et al., 2010; Friedlander et al., 2013). It is notable, however, that our mediation analysis was limited by our small sample size and diminished power that decreased our ability to detect a mediation effect.

Several measurement issues with the attitude scale may be implicated in these contradictory findings. For instance, although the attitude measure used in this study assessed students' attitudes towards sexual forms of dating violence, it did not assess for attitudes toward

cyber dating abuse specifically. Attitudes toward the perpetration of non-cyber sexual dating violence may not be a reliable and valid predictor of the perpetration of sexual cyber dating abuse. Thus, an attitude measure that is more specific to and takes into account the unique cyber aspect of sexual dating abuse (e.g., attitudes toward sexting or cyber aggression; Barlett & Gentile, 2012; Yeung, Horyniak, Vella, Hellard, & Lim, 2014), rather than a more generic sexual dating violence measure, would likely contribute to more reliable and valid results. In addition, other issues related to the attitude measure include low internal consistencies for the individual male and female dating violence scales, procedures used to calculate total attitude scores (i.e., summing the individual scales), and the use of select scale items rather than the full scales.

Furthermore, research also differentiates between explicit attitudes (i.e., conscious, deliberate) and implicit attitudes (i.e., unconscious, automatic) and contends that assessment methods that require respondents to explicitly provide self-reports of their cognitive experiences and attitudes may not paint an accurate picture of individuals' actual cognitive processes as they are often prone to social desirability biases (Eckhardt, Samper, Suhr, & Holtzworth-Munroe, 2012). According to this research, attitudes about violence that are related to aggressive behaviour are likely to operate automatically and with little conscious deliberation. Thus, it is possible that this study's attitude measure may not have captured students' implicit and deeper, underlying beliefs around dating abuse that may be related to actual aggressive behaviour, and may only have captured students' explicit dating violence attitudes. This might also help explain participants' relatively low self-reported violence-tolerant attitudes. Adapting attitude measures to capture both implicit and explicit aspects of cognitive processing would provide more reliable and valid results regarding the impact of attitudes on cyber dating abuse.

Discrepant findings regarding the relationship between students' dating violence attitudes and their reported perpetration may also, in part, be explained by differences in the way students perceived the attitude and cyber dating abuse measures. For instance, students may have perceived items on the attitudes scale as more serious and unethical in comparison to items on the dating abuse measure (e.g., perceived forcing a partner to kiss to be more serious/wrong than sending a partner an unwanted sexual photo). Students may have thought it was funny to send sexual pictures, and may have done it as a joke and without the intention of harm, as is supported by research on youths' sexting behaviours (Associated Press and MTV, 2009). This may also have led students to under-report their perpetration of sexual cyber dating abuse. Taken together, these findings, along with the described methodological limitations, suggest that more research is needed to elucidate the effect of violence-tolerant attitudes on the perpetration and experience of cyber dating abuse, and the potentially mediating role of attitudes in the relationship between media consumption and dating abuse.

Limitations of Study

As with all research, this study is subject to limitations related to its design, sample, and measurement that should be taken into consideration when interpreting the findings. The study utilized a cross-sectional design, thus limiting inferences of causality. Questions of causality are critical issues in the media literature (e.g., Anderson et al., 2003), and the dating violence literature similarly emphasizes the importance of identifying causality in order to ensure effective prevention and intervention programming (Vagi et al., 2013). Although the current study examined risk factors of cyber dating abuse, it is important to note that these factors are correlates of dating abuse and are not necessarily causative factors. Although pornography and gender emerged as significant predictors of the the likelihood of perpetration, and violence-

tolerant attitudes predicted the likelihood of victimization, we cannot infer that a causal relationship exists between these variables. While longitudinal research has shown that aggressive media usage often precedes dating abuse (e.g., Friedlander et al., 2013), the cross-sectional design of this study makes it difficult to determine the direction of the relationship and whether the use pornography and violent media, as well as violence-tolerant attitudes, precede or follow/are an outcome of cyber dating abuse, or both.

Adolescent dating violence is a complex phenomenon, and multiple individual and contextual factors are at play in youths' experiences and perpetration of dating violence (Capaldi et al., 2012). The current study only examined a limited number of factors (i.e., gender, grade, attitudes, violent media, porn use), and other variables not assessed or controlled for in this study (e.g., peer influences, family violence, personality factors, problem behaviour, mental health issues, relationship variables, ethnicity) may have impacted dating abuse outcomes and confounded study results.

Moreover, the sample size obtained for this study ($n = 113$) was small, especially given the study's narrow focus on adolescents who were in a romantic relationship. The small sample size produced limited data on variables of interest such as pornography and violent media consumption, attitudes, and dating abuse perpetration and victimization. The small sample size, and subsequently diminished statistical power, should be taken into consideration when interpreting the results and further research should employ larger samples to replicate findings and establish their generalizability.

In addition, the sample was drawn from southwestern Ontario, a region that is relatively lacking in cultural diversity. As such, this led to low ethnic variability in the sample. Survey responses within the study were limited culturally and may not have accounted for the

experiences of ethnic minorities, thus decreasing the generalizability of findings to more ethnically diverse populations. Further, although the study was inclusive of both heterosexual and homosexual dating relationships, whether students were in a heterosexual or homosexual relationship, and whether the observed findings differed based on sexual orientation, is unknown.

Further, data was collected through convenience sampling of three schools in close proximity to the researcher and that were interested in participating in the study, thus also limiting the generalizability of findings. The sample was limited to those youth who attended school (which excludes those who have dropped out) and specifically to youth who attended schools with principals and teachers supportive of the study and who were willing to allow students to be surveyed about sensitive topics. Thus, the sample may have been limited to youth from potentially forward-thinking schools and excluded some disconnected and/or disadvantaged youth. This may have skewed the prevalence rates of dating abuse experiences being measured.

Meanwhile, in order to recruit students, classroom teachers were asked to distribute the information and consent forms. Students may have felt obligated to participate in the study and/or students with dating abuse experiences may have been more likely to participate than other students without such experiences. This may have skewed the results (e.g., contributed to inflated reports of dating abuse). The effects of survey administration procedures is also a notable limitation. Specifically, although it was made known to students that survey responses were to remain anonymous and confidential, the classroom setting in which the survey was administered and completed (e.g., seated side-by-side) may have facilitated dishonest responses.

Another important limitation revolves around measurement issues. The current study utilized a survey methodology which relied on youth self-reports. The use of self-report measures might lend themselves to response bias, such that participants may have misinterpreted

survey items, responded dishonestly, or responded based on what they perceived to be socially desirable (Zweig et al., 2013). For instance, in attempts to be perceived positively by the researchers, participants may have indicated less tolerant attitudes toward dating violence than was true, as well as under-reported their perpetration and experience of cyber dating abuse, and consumption of violent media and pornography (e.g., especially adolescent girls, given gendered scripts relating to gender appropriate behaviour supporting boys' greater aggressiveness and use of pornography). Participants may have also underestimated or overestimated accounts of perpetration and victimization based on issues with recall error.

Moreover, although the current study derived its dating abuse measure from the existing literature, these items were limited in scope and might not have fully captured the breath of experiences that constitute sexual cyber dating abuse (e.g., might not encompass every victim experience or perpetration strategy). Likewise, the single item used to measure pornography consumption may have been limited in scope and did not take into account variations in levels of aggression. Some research suggests that although mutually consensual, non-violent pornography has neither positive or negative effects, violent porn that depicts women in a degrading, humiliating, or demeaning manner - as females are often the targets of sexual aggression in pornography - may have different, more negative effects (Owens et al., 2012). Further, the violence-tolerant attitude measure might also not have been a reliable measure given the low alphas for the individual male and female scales, and may not have captured students' implicit attitudes toward violence.

In addition, although the survey initially captured participants' consumption of media across three media types (i.e., TV, video games, music), difficulty scoring participants' music selections for violence led the researchers to drop music as one of the assessed media types; as

such the measure of violent media consumption was limited in breadth and only captured youths' use of violent TV and violent video games. This might not have provided a full and accurate picture of students' use of violent media. Scoring the TV shows and video games for violence also proved to be an arduous and painstaking task, increasing the potential for making a scoring error. Some TV shows and video games were also unable to be scored using the Common Sense Media website.

Recommendations for Future Research

The current study has numerous implications for future research. Much remains to be learned about cyber dating abuse, and the field would benefit from further research that examines additional individual and contextual risk factors for perpetration and victimization, as well as if or how these factors compare to the risk factors for other forms of dating violence and abuse.

Given that the present study was the first to examine the relationship between pornography consumption and dating abuse, and highlighted pornography use as a potent risk factor for sexual cyber dating abuse perpetration, it is critical that future research continue to explore and understand the role of pornography in adolescent dating violence. Examining this relationship in larger samples will help validate these findings. Future studies would also benefit from research that incorporates more sophisticated methodologies that move beyond correlational analysis and cross-sectional designs (Owens et al., 2012). Longitudinal research will help determine whether porn use predicts perpetration across time and whether a causal relationship exists. Longitudinal research will also help clarify the direction of the relationship, namely, if porn use precedes or is a consequence of dating abuse, or both.

Future research might also benefit from investigating the impact of exposure to different pornographic content and subgenres, varying in levels of physical and sexual aggressiveness, on

dating abuse perpetration (e.g., softcore versus hardcore pornography, rape pornography, bondage pornography, rough sex, BDSM porn featuring domination/submission and sadomasochism). Inclusion of greater specificity about the themes and messages portrayed in pornography is needed. Future research should also take into consideration whether pornography is viewed intentionally or accidentally (e.g., stumbling on pornographic images on the Internet), and might also benefit from examining the differential impact of pornography varying in levels of engagement (e.g., interactional and real-time), control afforded to the viewer (e.g., ability to select sexual acts performed), and potential for identification with the participants (e.g., first-person view).

Meanwhile, that violence-tolerant attitudes did not mediate the impact of porn use on dating abuse suggests that future research should attempt to further examine this relationship using other attitude measures, including measures that tap into sexual/gendered attitudes and beliefs. Future research should also investigate other mediating variables through which pornography is linked to the perpetration of cyber dating abuse. Studies assessing other moderating variables, aside from gender, in the relationship between porn use and cyber dating abuse, and that provide a greater understanding of gender differences in the use and influence of porn, and in the impact of porn on perpetration, will also add significantly to the existing literature.

Research that examines other background risk factors (e.g., peer use of aggressive media, peer perpetration of dating violence, exposure to family violence) as well as individual and cognitive factors (e.g., ethnicity, personality factors, attitudes) that in addition to, and in interaction with pornography and violent media, impact cyber dating abuse outcomes, would

help provide a more comprehensive understanding of how pornography and media violence can affect youth.

Examining potential protective factors for perpetration in male and female porn-users is also critical in light of study findings showing that only a minority (27%) of porn-users did not perpetrate abuse. Understanding what protects this small group of porn-using adolescents from perpetrating would be valuable in informing dating abuse prevention programs. Furthermore,

Additionally, given that this study represents one of the first few studies to extend media research to the domain of adolescent dating violence and the first to assess the relationship between media violence and cyber dating abuse, more research in this area is essential. In light of this study's inconsistent findings, it would be valuable to address methodological differences that might be implicated in these results. For instance, future research might replicate findings with larger sample sizes, employ longitudinal designs, use a more comprehensive measure of violent media across more varied media types (e.g., TV, music, magazines, video games), include cyber forms of aggression in measures of violent media, and explore more robust methods of scoring for media violence.

Finally, although the current study gathered a large quantity of data through the use of surveys, employing a mixed methods approach that incorporates qualitative data (e.g., focus groups) will allow for the collection of richer information. This would lend to a deeper understanding of adolescents' perceptions of the impact of pornography and media violence on attitudes towards dating violence, sexual/gender roles and attitudes, and on the perpetration and experience of cyber dating aggression. This information would prove valuable in informing dating abuse prevention and intervention programs for youth.

Practical Implications

The current study has practical implications for the development of dating violence prevention and intervention programs for youth that are tailored to youths' perpetration and experience of cyber dating abuse and that emphasize media literacy, especially as it relates to pornographic mediums. Lundgren and Amin (2015) suggest three promising approaches to the prevention of adolescent dating violence, including school-based dating violence, parenting, and community-based interventions. They suggest that programs with longer term investments and repeated exposure to ideas delivered in different settings over time have better results than single awareness-raising or discussion sessions.

School-based interventions. This study's results support the need to incorporate pornography as a component of school sex education programs. Sex education programs that include a media literacy component on pornography can be used to challenge youths' unrealistic and unhealthy attitudes about sex, gender inequitable attitudes, and attitudes tolerant of dating violence. They can be used to help young people develop critical viewing skills to make them less vulnerable to the potentially harmful effects of pornography. By providing adolescents with direct instruction on how to examine, analyze, and evaluate sexual messages encountered in pornography, these programs can allow youth to become active participants in the communication process.

School-based programs that educate youth, from an early age, about consent in digital literacy programs, healthy youth relationships, as well as the dangerous long-term consequences and potential legal implications of sharing sexually explicit photos, will be important in the prevention of sexual cyber dating abuse. School programs that address topics including issues of power and control in relationships, relationship skill-building, non-aggressive conflict resolution,

communication skills, decreasing tolerance of dating abuse, and help-seeking, will also likely be effective as a dating abuse prevention measure (Lundgren and Amin, 2015).

Ontario has recently updated its sexual education curriculum to be introduced to students in earlier grades starting September 2015 (Ontario Ministry of Education, 2015). This new curriculum is to include topics such as gender identity, consent, and the risks of sexting. However, despite these improvements in the Ontario sex education curriculum, and raising concerns regarding the prevalence of porn use and its potentially harmful impact on youth, a media literacy component on pornography is still lacking, and there is little consensus about what teachers should do to address the issue.

Role of parents. Findings also have implications for the importance of increasing parental awareness of their children's use of pornography, for involving and educating parents on how to establish an open and on-going dialogue with their children about sex from an early age, communicating openly about pornography, and for helping youth dissect their experiences when they are exposed to pornography. Parents can play a role in the healthy sexual education of their children by discussing the sexual messages they encounter in pornography and other mediums. Parents can help youth understand the harmful effects of images that degrade women or that pressure boys to conform to a male-gendered model centered on dominance and sexual assertiveness, and ultimately help foster healthy sexual and gender attitudes that may be implicated in the perpetration of dating abuse. Parents can also play a role in educating their children about the risks of sexting and sexual cyber dating abuse. Increasing parental monitoring (e.g., anti-porn parental controls) and establishing clear rules around visiting pornographic sites may serve as another protective safeguard against youths' early and accidental exposure to potentially harmful pornographic content online. Moreover, parents can also play a role in the

healthy sexual education of their children by directing them to good-quality information about youth sexuality and health.

Community interventions. This study also has practical implications for the development of community-based programs designed to raise community awareness around the high prevalence of sexual cyber dating abuse among teens and the role pornography plays in youth sexual education. Community programs can also help foster more equitable norms regarding gender and decrease tolerance of dating abuse in society. In light of this study's gendered findings that implicate the male gender as a risk factor for sexual cyber dating abuse perpetration, community initiatives could include dating abuse group education programs that target groups of adolescent boys and girls separately as well as both genders simultaneously (Lundgren & Amin, 2015). Fatherhood programs might be helpful in fostering adolescent boys' gender equitable attitudes and decrease acceptance of traditional male gender norms. Community sports programs that target male athletes and incorporate gender-equitable attitudes into team activities may also be useful.

Policy implications. The study lends support to the high prevalence of sexual cyber dating abuse and reinforces the need for national and international legislation that promotes youth safety and privacy in digital communications. Findings also have social policy implications for risk management related to online pornography exposure among children and youth, as well as for the development of pro-social media content that promotes gender equitable attitudes, non-aggressive conflict resolution, and healthy youth relationships. Policies that restrict ease of access to online pornographic content that may be harmful to youth, especially young children, and that protect children from inadvertent exposure, would be beneficial. Better understanding which types of pornography are most harmful and which youth are most

vulnerable to its influence might help inform policy decisions around online pornography access restrictions for youth populations.

Conclusion

The present study is one of the first to highlight pornography consumption as a risk factor in the perpetration of sexual cyber dating abuse among adolescents. Adolescents, and especially adolescent males, consume pornography more than any other age group and it is crucial that we understand what they are learning from these experiences. This study also contributes to the literature by demonstrating that gender, and specifically, being male, is a risk factor for perpetration, which is consistent with previous literature on sexual cyber dating abuse. New light was shed on the moderating role of gender in the relationship between pornography and perpetration. This relationship was particularly pertinent for male porn-users, which follows well with males' higher consumption of pornography. Gender role attitudes related to male dominance and female submission, and the sexual objectification of women may be implicated in the relationship between gender, pornography, and perpetration.

In addition, this study also provides new insight into the relationship between violence-tolerant attitudes and cyber dating abuse victimization. Further, despite contradictory findings for the effects of violent media, this study was the first to extend media research to the domain of cyber dating abuse, and in doing so, encourages future investigation in this area. By showing that sexual cyber dating abuse experiences are common among youth, and that exposure to pornography can increase the risk of perpetration against a romantic partner, the findings of this study speak to societal concerns about encouraging prevention and intervention efforts to eliminate dating abuse, including school-based dating violence, community-based, and parent-focused interventions, as well as policy implications. Study findings reinforce the notion that it is

critical to identify and target those risk factors associated with dating aggression early in adolescence, an important developmental period for learning patterns of interaction and when dating violence often emerges, in order to effectively prevent deleterious mental health consequences and future abuse in adult intimate relationships.

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Appendix A

MEDIA & SOCIAL LIFE SURVEY

BACKGROUND

1. Are you: Male Female Other
2. How old are you? _____
3. Are you in: Grade 10 Grade 11 Grade 12

MEDIA

In this section, you will be asked to name your three favourite TV shows, video games, and musical artists/groups, in no particular order.

Name your **three favourite television shows**.

- A) _____
 B) _____
 C) _____

Name your **three favourite video games**.

- A) _____
 B) _____
 C) _____

Name your **three favourite musical artists or musical groups**.

- A) _____
 B) _____
 C) _____

In this section, you will be asked to indicate how often you consume TV shows, video games, music, and pornography.

About how much time a day do you spend watching TV shows?

- None
 5 Min –Less than 30 Min
 30 Min –1 Hr
 More than 1 Hr – 3 Hrs
 More than 3 hours

About how much time a day do you spend playing video games?

- None
- 5 Min –Less than 30 Min
- 30 Min –1 Hr
- More than 1 Hr – 3 Hrs
- More than 3 hours

About how much time a day do you spend listening to music?

- None
- 5 Min –Less than 30 Min
- 30 Min –1 Hr
- More than 1 Hr – 3 Hrs
- More than 3 hours

How often do you view pornography on the internet? (Please note: "Pornography" refers to sexually explicit content)

- Never
- Occasionally (monthly)
- Frequently (weekly)
- Regularly (daily)

WRONGFULNESS SCALE

“How Wrong Do I Believe These To Be?”

Listed below are behaviors I may observe among students during the school day, on my way home from school, at school related events, or at social events with other students. ***Please indicate how wrong you believe each of these to be using the scale to the right.***

	<i>How wrong do I believe each of the following actions to be if I observed it by a student I don't know?</i> <i>A student is:</i>	Not Wrong at All	A Little Wrong	Uncertain	Wrong	Very Wrong
1.	... making sexual gestures or remarks to others.					
2.	... making sexual advances on someone who is drunk.					
3.	... teasing others about their bodies or clothing.					
4.	... discussing other students' sexual activity.					
5.	... listening to music lyrics that degrade women.					
6.	... gossiping and spreading rumors about others.					
7.	... telling jokes that make fun of women and girls.					
8.	... using the internet to degrade or harass other students with words or pictures.					
9.	... sharing sexual photos of his girlfriend.					
10.	... sharing sexual photos of a girl you don't know.					
11.	... pressuring his girlfriend to send sexual pictures.					
12.	... pressuring a female acquaintance to send sexual pictures.					

DATING ATTITUDES

<p>The statements below describe attitudes toward a variety of behaviours in dating relationships which different people have. There are no right or wrong answers, only opinions. Therefore, it is very important that you answer each question honestly. Please express your feelings about each statement by indicating whether you: Strongly Disagree, Mildly Disagree, Neither Disagree nor Agree, Mildly Agree, or Strongly Agree.</p>	Strongly Disagree	Mildly Disagree	Neither Disagree nor Agree	Mildly Agree	Strongly Agree
1. When a guy pays on a date, it is O.K. for him to pressure his girlfriend for sex.					
2. Guys should never get their girlfriends drunk to get them to have sex.					
3. A guy should not touch his girlfriend unless she wants to be touched.					
4. It is alright for a guy to force his girlfriend to kiss him.					
5. To prove her love, it is important for a girl to have sex with her boyfriend.					
6. A girl who goes into a guy's bedroom is agreeing to sex.					
7. It is alright to pressure a girl to have sex if she has had sex in the past.					
8. A girl should not touch her boyfriend unless he wants to be touched.					
9. A guy should break up with his girlfriend if she has forced him to have sex.					
10. A guy who goes into a girl's bedroom is agreeing to sex.					
11. It is alright for a girl to force her boyfriend to kiss her.					
12. Girls should never get their boyfriends drunk to get them to have sex .					
13. To prove his love, it is important for a guy to have sex with his girlfriend.					
14. There is nothing wrong with a guy changing his mind about having sex.					

TAKING ACTION SCALE

How Likely Am I To Take Action?

Listed below are student behaviors that I may observe during the school day, on my way home from school, at a school related event, or at a social event with other students. ***Please indicate how likely you are to do something to stop the behaviors. Use the scale to the right of the questions.***

	<i>When I observe the following how likely am I to do something to try and stop the behaviors or situations if...</i> <i>A student is:</i>	Very Unlikely	Somewhat Unlikely	Uncertain	Likely	Very Likely
1.	... making sexual gestures or remarks to others.					
2.	... making sexual advances on someone who is drunk.					
3.	... teasing others about their bodies or clothing.					
4.	... discussing other students' sexual activity.					
5.	... listening to music lyrics that degrade women.					
6.	... gossiping and spreading rumors about others.					
7.	... telling jokes that make fun of women and girls.					
8.	... using the internet to degrade or harass other students with words or pictures.					
9.	... sharing sexual photos of his girlfriend.					
10.	... sharing sexual photos of a girl you don't know.					
11.	... pressuring his girlfriend to send sexual pictures.					
12.	... pressuring a female acquaintance to send sexual pictures.					

DATING

Please indicate below whether you are currently in a romantic relationship or have been during the past year. Please note: A "romantic relationship" refers to a relationship with a boyfriend or girlfriend including a same-sex relationship, someone you have dated or are currently dating (e.g., going out or socializing without being supervised), someone who you like or love and spend time with, or a relationship that might involve sex.

- Yes, I am currently in a romantic relationship or have been during the past year.
- No, I am not currently in a romantic relationship and have not been during the past year.

If you answered "Yes", please complete the items below.

	Never	Rarely	Sometimes	Very Often
1. In the past year , how many times has the person that you currently are dating, or if you are not currently dating, the person you most recently dated done the following things to you ? Only include when that person did it to you first. In other words, don't count it if they did it to you in self-defense.				
Sent me sexual photos or naked photos of himself/herself that he/she knew I did not want				
Threatened me if I did not send a sexual or naked photo of myself				
Pressured me to send a sexual or naked photo of myself				
Sent me text messages, email, IM, chats, etc., to have sex or engage in sexual acts with him/her when he/she knew I did not want to				

DATING

<p>2. In the past year, how many times have you ever done the following things to the person that you currently are dating, or if you are not currently dating, the person you most recently dated? Only include when you did it to him/her first. In other words, don't count it if you did it in self-defense.</p>	Never	Rarely	Sometimes	Very Often
<p>Sent him/her sexual photos or naked photos of myself that I knew he/she did not want</p>				
<p>Threatened him/her if (s)he didn't send a sexual or naked photo of himself/herself</p>				
<p>Pressured him/her to send a sexual or naked photo of himself/herself</p>				
<p>Sent him/her text messages, email, IM, chats, etc., to have sex or engage in sexual acts with me that I knew the person did not want to do</p>				

Appendix B

Recruitment Script for Information/Consent Form Distribution

Name of Study: Adolescents' Perceptions of Violence & Cyberbullying: An Analysis of High School Students' Experiences.

Investigators:

Peter Jaffe, Ph.D., C. Psych – Western University
 Jessica Sciaraffa, M.A. (candidate) - Western University
 Gloria Zhang, M.A. (candidate) - Western University

Recruitment Script

As students from [school name], you are being asked to complete a short survey examining cyber bullying, media, and sexual violence. The whole study will take approximately 35 minutes to complete. You will be participating amongst your peers within our classroom setting. There will be questions about your understanding of violence, cyber abuse, experiences, and media. In addition, you'll be asked about your perceptions of wrongfulness and likelihood of you and others intervening in situations involving potential sexual violence. If you choose not to participate at any point during the study, you will have the opportunity to complete individual homework at your desk without any penalty.

In order to participate, you are required to read the Information Letters and provide signed copies of both sets of Consent Forms. The information you give the researchers is confidential, and this confidentiality will be protected to the extent permitted by law. If you tell one of the researchers about a child being hurt (please note that a child refers to an individual under 18 years of age), or that you intend to hurt yourself or someone else, or that you have perpetrated or experienced violence, the researchers are required to contact the proper authorities. Identifiable, verbal disclosures of dating abuse perpetration and victimization will be directly reported by the researchers to the appropriate authorities.

Your responses will not be linked back to your name. Your name on your consent form will be kept separate from the other information you provide. At the end of the program the researcher will shred any papers with your name on it. The information collected during this research may be used for educational purposes or become part of a published scientific report. This information will only be reported in terms of group findings. NO information will be reported that would allow anyone to be identified individually.

It is possible you might feel uncomfortable or embarrassed about answering personal questions in the survey. You will not be required to answer any question that makes you uncomfortable. The researchers will provide you with information on cyberbullying and violence at the end of the study. If you experience distress please talk to the researchers. They will provide you with information on community supports and/or supports within the school that you can access.

Participation in this study is voluntary. Even if your parent has signed the consent form allowing you to participate, your participation in the study is voluntary. You may refuse to participate, refuse to answer any questions, or withdraw from the study at any time with no effect on your academic status.

Cyberbullying is a relatively new phenomenon and is increasing with technological advancements, for this reason it is a topic that is interesting to many teens. Sexual violence is also seen in high schools. In addition, this research may provide significant social and scientific benefits through the knowledge that will be gained.

If you have any questions about the conduct of this study or your rights as a research participant you may contact the Office of Research Ethics, Western University. Further contact information is provided on your Information Letter.

Distribute the following (4 forms should be given to each student)

- A) **Parental Information Letter**
- B) **Youth Information Letter**
- C) **Parental Consent Form**
- D) **Youth Assent Form**

***Please ensure that each student has received 1 copy of each letter. As well, please remind them that their consent/assent forms need to be brought back signed in order to participate.**

Thank you for your participation and help! 😊

Appendix C

Youth Information Letter

Name of Study: Adolescents' Perceptions of Violence & Cyber bullying: An Analysis of High School Students' Experiences.

Investigators:

Peter Jaffe, Ph.D., C. Psych – Western University

Jessica Sciaraffa, M.A. (candidate) - Western University

Gloria Zhang, M.A. (candidate) - Western University

As a student in [school name], you are invited to participate in a research project being conducted with the [school board name]. We are seeking your agreement to participate in a research study, as described below. Students from your school in grades 10, 11 and 12 will be asked to participate in this study, developed by Western University.

Study Procedures

We are asking students to fill out surveys, which will take approximately 35 minutes to complete. If you agree to participate, you will be asked to participate in the study during regular school hours. Students wishing not to participate will have the opportunity to complete individual homework in the school library and will also miss 35 minutes of class time. You will be asked to complete a short survey on your use of media and pornography, attitudes towards dating violence, and experiences and involvement in dating violence and cyber-bullying. In addition, you'll be asked about your perceptions of wrongfulness and likelihood of you and others intervening in situations involving violence. Students who choose to discontinue their participation at any point during the study will also have the opportunity to complete individual homework at their desks. You will not be penalized for withdrawing at any time or for not participating in the study.

Privacy and Confidentiality

The information you give us is confidential, and this confidentiality will be protected to the extent permitted by law. If you tell one of the researchers about a child being hurt (please note that a child refers to an individual under 18 years of age), that you intend to hurt yourself or someone else, or that you have perpetrated or experienced abuse or violence we are required to contact the proper authorities. If you tell this information to teachers or any other school personnel, they too will be required to report it. Identifiable, verbal disclosures of dating abuse perpetration and victimization will be directly reported by the researchers to the appropriate authorities.

Your responses will not be linked back to your name. Your name on your consent form will be kept separate from the other information you provide. At the end of the program we will shred any papers with your name on it. The information collected during this research may be used for educational purposes or become part of a published scientific report. This information will only be reported in terms of group findings. NO information will be reported that would allow anyone to be identified individually.

Risks

It is possible you might feel uncomfortable or embarrassed about answering personal questions about your experiences with violence and cyber bullying and your use of various forms of media. You will not be required to answer any question that makes you uncomfortable. The researchers will provide you with information on cyber bullying and violence at the end of the study. If you experience distress or have any questions or concerns please talk to the researchers. They will provide you with information on community supports and/or supports within the school that you can access.

Voluntary Participation

Participation in this study is voluntary. Even if your parent has signed the consent form allowing you to participate, your participation in the study is voluntary. You may refuse to participate, refuse to answer any questions, or withdraw from the study at any time with no effect on your academic status.

Potential Benefits Associated with Participation

Cyber bullying is a relatively new phenomenon and is increasing with technological advancements, for this reason it is a topic that is interesting to many teens. In addition, sexual violence and harassment is something that high school students experience. In addition, this research may provide significant social and scientific benefits through the knowledge that will be gained about the phenomenon of cyber bullying. This letter is yours to keep. Please sign the attached assent form, and return it and the parental consent form to your teacher.

Questions

If you have any questions about the conduct of this study or your rights as a research participant you may contact the Office of Research Ethics, Western University at 519-661-3036 or ethics@uwo.ca. If you have any questions about this study, please contact:

Peter G. Jaffe, Ph.D., C. Psych.
Western University

Appendix D
Youth Assent Form

Study: Adolescents' Perceptions of Violence & Cyber bullying: A Mixed Methods Analysis of High School Students Experiences.

I have read the letter of information, have had the nature of the study explained to me and I agree to participate in the study. All questions have been answered to my satisfaction.

Your name (please print)

* Signature

Date

Principal Investigator:

Peter G. Jaffe, Ph.D., C. Psych.

Western University

Appendix E

Parent Information Letter

Name of Study: Adolescents' Perceptions of Violence & Cyber bullying: An Analysis of High School Students' Experiences.

Investigators:

Peter Jaffe, Ph.D., C. Psych – Western University

Jessica Sciaraffa, M.A. (candidate) - Western University

Gloria Zhang, M.A. (candidate) - Western University

As a parent of a student attending [school name], your son/daughter is invited to participate in a research project being conducted with the [school board name]. We are seeking your consent and

that of your son/daughter to participate in a research study, as described below, developed by Western University. Approximately 200 participants will take part in this study.

Procedures

We are asking students in your son/daughter's class to complete a short survey, which will take approximately 35 minutes in total. Students will be asked to participate in the study during regular school hours, and as such will miss 35 minutes of regular class time. Students who are not participating in the study will have the opportunity to complete individual homework in the school library for the duration of the study and will also miss 35 minutes of class time. If you agree that your son/daughter may participate, s/he will complete the survey within a classroom setting. The survey will ask questions about their use of media, as well as their knowledge of and experiences with dating violence and cyber bullying. In addition, they will be asked about their perceptions of wrongfulness and likelihood of intervening in situations involving violence. Students may choose not to participate or discontinue their participation at any point during the study without penalization and will be asked to complete individual work at their desks.

Privacy and Confidentiality

The information your son/daughter gives us is confidential, and this confidentiality will be protected to the extent permitted by law. If your child is to reveal to one of the researchers information about a child being hurt (please note that a child refers to an individual under 18 years of age), that he or she intends to hurt him/herself or someone else, or that he/she has perpetrated or experienced abuse or violence, the researchers will, however, be required to contact the proper authorities. If your child discloses this information to his/her teachers or any other school personnel, they too will be required to report it. Identifiable, verbal disclosures of dating abuse perpetration and victimization will be directly reported by the researchers to the appropriate authorities.

Your son's/daughter's name or information which could identify him/her will not be used in any publications or presentation of the study results. Only the investigators and their research assistants will have access to this information. At the end of the project we will shred all papers with your son's/daughter's name on it and destroy informal notes.

The information collected during this research may be used for educational purposes or become part of a published scientific report. This information, however, will ONLY be reported in terms of group findings. NO information will be reported that would allow anybody to be identified individually.

Risks

It is possible that your child might feel uncomfortable or embarrassed about answering personal questions about their experiences with violence and cyber bullying and their use of various forms of media. He or she will not be required to answer any questions that make him/her uncomfortable. The researchers will provide students with information on cyber bullying and violence at the end of the study. Students who experience distress or have any questions or concerns will be encouraged to speak to the researchers. Researchers will provide students with information on community supports and/or supports within the school that he/she can access.

Voluntary Participation

Participation in the study is voluntary. He or she will not be required to answer any question that makes him/her uncomfortable. You or your son/daughter may refuse to participate, refuse to answer any questions, or withdraw from the study at any time with no effect on his/ her grades or school involvement.

Potential Benefits Associated with Participation

Cyber bullying is a relatively new phenomenon and is increasing with technological advancements, for this reason it is a topic that is interesting to many teens.

In addition, this research may provide significant social and scientific benefits through the knowledge that will be gained about the phenomenon of cyber bullying.

This letter is yours to keep. Please complete the attached consent and assent forms and give them to your son/daughter to return to his or her teacher.

Questions

If you have any questions about the conduct of this study or your rights as a research participant you may contact the Office of Research Ethics, Western University at 519-661-3036 or ethics@uwo.ca. If you have any questions about this study, please contact:

Peter G. Jaffe, Ph.D., C. Psych.
Western University

Appendix F
Parent Consent Form

Study: Adolescents' Perceptions of Violence & Cyber bullying: A Mixed Methods Analysis of High School Students Experiences.

I have read the letter of information, have had the nature of the study explained to me and I agree that my son/daughter may participate in the study. All questions have been answered to my satisfaction.

Your Name (please print)

Full name of student (please print)

* Signature of parent or guardian


Date

Principal Investigators:

Peter G. Jaffe, Ph.D., C. Psych.

Western University

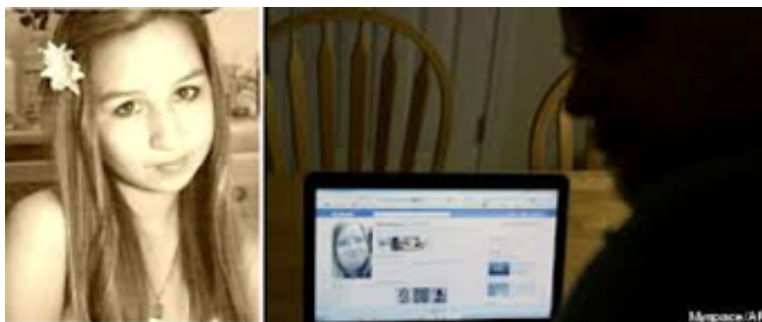
Appendix G
Debriefing Presentation



**CYBER-BULLYING & ABUSE
IN TEEN RELATIONSHIPS**

Jessica Sciaraffa, M.A. Candidate
Angel Zhang, M.A. Candidate
Western University

AMANDA TODD



ABOUT US! 😊

- ◉ Jessica and Angel
- ◉ Students in Master's program in Counselling Psychology at Western University
- ◉ Thesis research



OUR RESEARCH

- ◉ 1) Is violent media related to teen dating abuse?
- ◉ 2) What do you think about violence?
- ◉ 3) Which types of sexual violence do you find more “wrong” than others?
- ◉ 4) Will you intervene in these scenarios?



HOW WILL OUR RESEARCH HELP?

- Prevent future abuse in relationships
- Dating abuse prevention and intervention programs
- Help teens become more active in preventing violence and abuse

ABUSE IN DATING RELATIONSHIPS

DEFINITION OF DATING ABUSE

- Abusive behaviours against a current or former boyfriend/girlfriend

TYPES OF DATING ABUSE

- **PHYSICAL** (e.g., hitting, punching, kicking, hair pulling)
- **EMOTIONAL/VERBAL** (e.g., yelling, spreading false rumours)
- **SEXUAL** (e.g., forcing the person to engage in a sex act, unwanted touching or kissing)



WHY IS DATING ABUSE AN IMPORTANT ISSUE?

- 71% of youth in Canada are in a dating relationship by the age of 15
- Each year 1 in 4 teens reports verbal, physical, emotional or sexual dating abuse
- It happens both ways!
- Many negative mental health consequences (e.g., depression, substance use)

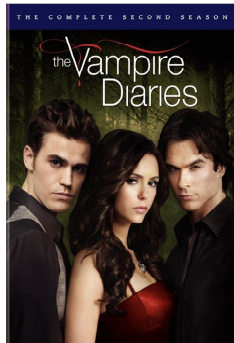
MISUSE OF TECHNOLOGY IN RELATIONSHIPS

- Use of electronic technologies (e.g., social networking, cell phones, e-mail) to abuse a boyfriend/girlfriend
 - Sexual
 - Non-sexual
- **26%** of youth reported being a victim in the past year
- More boys involved in sexual misuse of technology and girls are twice as likely to be victims; more girls involved in non-sexual misuse of technology



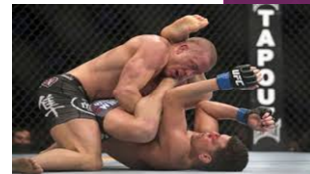
MEDIA VIOLENCE

- Average teen consumes +7.5 hours/day (TV, music, movies, video games, magazines, Internet)
- Teenagers use the media as an important source of information about dating relationships



MEDIA VIOLENCE

- Use of violent media has been linked to dating violence in teens
- Important factor:
 - Violence-tolerant attitudes and beliefs



PORNOGRAPHY

- ◉ The majority of porn users are teens
- ◉ Teens' use of pornography linked to:
 - Involvement in sexual violence and harassment
 - More traditional attitudes about gender roles



VIOLENCE

- ◉ Remember... Violence and bullying against **ANYBODY** (including guys and girls) is wrong

WHAT ARE BYSTANDERS?

- **ANYONE** who is just “there” during a violent act, but isn’t the victim or perpetrator.



WHY YOU CAN HELP

- ❖ Help the person being hurt (eg. Call the police)
- ❖ Speak out against violence
- ❖ Be there for a friend who's been hurt



WHEN ARE YOU WILLING TO DO SOMETHING?

- Which situations do you find more okay to step in?

TAKING ACTION SCALE
How Likely Am I To Take Action?

Listed below are student behaviors that I may observe during the school day, on my way home from school, at a school related event, or at a social event with other students. Please indicate how likely you are to do something to stop the behaviors. Use the scale to the right of the questions.

	<i>When I observe the following how likely am I to do something to try and stop the behaviors or situations if...</i>					
	<i>A student is:</i>	Very Unlikely	Somewhat Unlikely	Uncertain	Likely	Very Likely
1. TAOF	... making sexual gestures or remarks to others.					
2. TAOF	... making sexual advances on someone who is drunk.					
3. TAOF	... teasing others about their bodies or clothing.					

SCENARIO SURVEY

- How “wrong” is it?
- Is it more wrong if it’s online or offline?

Wrongfulness Scale

“How Wrong Do I Believe These To Be?”

Listed below are behaviors I may observe among students during the school day, on my way home from school, at school related events, or at social events with other students. Please indicate how wrong you believe each of these to be using the scale to the right.

	<i>How wrong do I believe each of the following actions to be if I observed it by a student I don't know?</i>					
	<i>A student is:</i>	Not Wrong at All	A Little Wrong	Uncertain	Wrong	Very Wrong
1. PWOF	... making sexual gestures or remarks to others.					
2. PWOF	... making sexual advances on someone who is drunk.					
3. PWOF	... teasing others about their bodies or clothing.					
4. PWOF	... discussing other students' sexual activity.					
5. PWOF	... listening to music lyrics that degrade women.					

SENDING PICTURES

- ◉ **REMEMBER:** Sending sexual pictures of underage children and teens (under 18) is against the law!



IF YOU'RE UPSET, CONCERNED, OR WANT TO KNOW MORE

- ◉ Here, you can talk to your teacher or guidance counsellor.

Where Else To Get Help

- ◉ Kids Help Line (24/7)
 - 1-800-668-6868
- ◉ www.MindYourMind.ca
- ◉ Anonymous Crime Reporting
 - www.londoncrimestoppers.com
- ◉ Clarke Rd Cares Anonymous Reporting
 - www.tvdsb.ca/MedwayHighSchool.cfm?subpage=150824
- ◉ Circle of 6 Phone App



BE AN UPSTANDER!

- Don't be afraid to get help or talk to somebody!



**I am an UPST'ANDER...
...What do YOU stand up for?**

QUESTIONS? COMMENTS?

**CURRICULUM VITAE
JESSICA SCIARAFFA**

EDUCATION

- Sept. 2013-Present** Master of Arts, Counselling Psychology
Western University, London, ON
Expected Completion: April 2015
- Sept. 2005-April 2010** Honours Bachelor of Arts, Psychology
York University, Toronto, ON
Conferred June 2010

OTHER GRADUATE COURSEWORK

- Aug. 2011-Dec. 2011** Doctor of Psychology (PsyD), Clinical Psychology
Massachusetts School of Professional Psychology, Boston, MA

SCHOLARSHIPS & AWARDS

- 2014-2015:** SSHRC Canada Graduate Scholarship-Master's, Western University, \$17,500 (Declined)
2014-2015: Western Graduate Research Scholarship, \$5,000
2013-2014: Western Graduate Research Scholarship, \$5,000
2013-2014: SSHRC Canada Graduate Scholarship-Master's, Western University, \$17,500
2013-2014: Ontario Graduate Scholarship, University of Ottawa, \$15,000 (Declined)
2008-2009: York University Continuing Student Scholarship, \$624
2006-2007: York University Continuing Student Scholarship, \$550
2005-2009: Queen Elizabeth II Aiming for the Top Scholarship, \$3,500
2005-2006: York University Entrance Scholarship, \$4,000

RESEARCH EXPERIENCE

- May 2014-Oct. 2014** Research Assistant
Child and Parent Resource Institute (CPRI)
- Sept. 2013-Present** Research Assistant
Centre for Research & Education on Violence Against Women &
Children, Western University
- Dec. 2011-June 2013** Research Assistant
Toronto Hospital for Sick Children, Eating Disorders Program
- May 2012-May 2013** Research Assistant
York University, Research on Emerging Adults, Adolescents, and
Children (REACH) Lab

RESEARCH EXPERIENCE, con't

Jan. 2011-April 2011	Research Assistant York University, Developmental Research Study
Sept. 2010-Aug. 2011	Research Assistant York University, Trauma and Attachment Lab
Jan. 2010-May 2010	Research Assistant York University, Independent Research Study
June 2009-Dec. 2009	Research Assistant York University, Cognition Lab
Sept. 2008-Aug. 2010	Research Assistant York University, REACh Lab
Sept. 2008-April 2009	Undergraduate Honour's Thesis York University

COUNSELLING RELATED EXPERIENCE

Sept. 2014-Present	Counselling Intern London Family Court Clinic
Sept. 2014-Present	Group Counsellor Traumatic Stress Service Program, London Health Sciences Centre
Jan. 2011-April 2013	Crisis Counsellor Sexual Assault/Rape Crisis Centre of Peel
Aug. 2011- Dec. 2011	Counselling Intern Joyce Kilmer Elementary School
Nov. 2009-Jan. 2011	Crisis Counsellor Spectra Community Support Services
Sept. 2005-April 2006	Literacy Buddy & Big Sister Shoreham Public Elementary School

PUBLICATIONS

Gerritsen, C. J., Toplak, M. E., Sciaraffa, J., & Eastwood, J. (2014). I can't get no satisfaction: Potential causes of boredom. *Consciousness and Cognition*, 27, 27-41.

SELECT POSTER PRESENTATIONS

- Sciaraffa, J., Stewart, S. L., Arbeau, K., & Liu, C. (2015, June). *The relationship between bullying and peer and parenting characteristics in a clinical sample of youth exposed to domestic violence*. Poster to be presented at the 76th Annual Canadian Psychological Association Convention, Ottawa, ON.
- Sciaraffa, J., & Jaffe, P. (2015, May). *The role of violent media and violence-tolerant attitudes in youths' perpetration and experience of cyber dating abuse*. Poster to be presented at the 2015 Canadian Counselling and Psychotherapy Association Annual Conference, Niagara Falls, ON.
- Sciaraffa, J., & Jaffe, P. (2015, February). *Teenagers' use of internet pornography and sexual cyber dating Abuse: Is there a link?* Poster presented at the 68th Annual Ontario Psychological Association Convention, Toronto, ON.
- Sciaraffa, J., Arbeau, K., Liu, C., & Stewart, S. L. (2014, November). *Domestic violence exposure, deliberate self-harm and self-injurious ideation: The role of peers*. Poster presented at the 2014 Mental Health Commission of Canada/Canadian Association for Suicide Prevention Virtual Conference.
- Sciaraffa, J., Stewart, S. L., Arbeau, K., & Liu, C. (2014, November). *The relationship between bullying and peer and parenting characteristics in a clinical sample of youth exposed to domestic violence*. Poster session presented at the Second Annual Child and Adolescent Psychiatry Research Half Day, London, ON.
- Sciaraffa, J. (2013, June). *The effects of gender on ratings of facial attraction*. Poster session presented at the Canadian Psychological Association's 74th Annual Convention, Quebec City, QB.

PROFESSIONAL MEMBERSHIPS

- 2014-2015:** Ontario Psychological Association, Student Affiliate
2014-2015: Canadian Counselling and Psychotherapy Association, Professional Student Member
2013-2015: Canadian Psychological Association, Student Affiliate