UNDERSTANDING DATING VIOLENCE MENTAL HEALTH OUTCOMES IN ADOLESCENTS:

AGE DISCREPANCY AND SUICIDALITY

by

Heather Gesner

B.N., The University of New Brunswick, 2007

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Abstract

**Purpose:** Key mental health outcomes are associated with adolescent dating violence. In research examining adolescent dating violence and mental health outcomes, results vary between studies, and little research is from Canada. Current research seldom considers gender differences, and the link between dating violence and older romantic partners. This study investigated gender differences in mental health issues associated with past year dating violence among youth in British Columbia. I also analyzed the relationship between dating violence and age-discordant relationships (illegal older partner at first sex).

**Methods:** I conducted an analysis using cross-sectional data from the 2013 BC Adolescent Health Survey (BC AHS; N=28,992). Measures included: past year suicidal ideation/Attempts and self-harm behavior, past month extreme sadness and hopelessness, poor self-rated mental health, and self-reported post-traumatic stress disorder (PTSD) and depression diagnoses. I examined the relationship between dating violence and these mental health outcomes separately by gender. I analyzed these same measures by age-discordant relationships among those with a dating violence history for both boys and girls together, and then separately by gender.

**Results:** Among the 39% of youth who reported being in a relationship, 5.9% reported experiencing dating violence, with similar prevalence for boys (6.3%) and girls (5.5%). Adolescent dating violence was associated with all mental health outcomes. Girls reported more adverse mental health outcomes than boys. Youth with dating violence were also more likely to report an age-discordant first relationship, and they were more likely to report poor/fair mental health, PTSD, and suicidality versus those whose first sexual partner was not illegally older. Among those with both dating violence and age discordant relationship history, boys were more likely to report poor/fair mental health; girls were more likely to report PTSD.

**Discussion and Implications:** More girls than boys showed unfavourable mental health outcomes associated with dating violence. Results support past research showing a strong association between an older first sexual partner, dating violence and adverse mental health outcomes. Nurses in mental health services should regularly screen for dating violence in adolescent romantic relationships, for both boys and girls, which may exacerbate mental health illness.
Lay Summary

Adolescent dating violence is associated with negative mental health outcomes such as depressive symptoms, suicidality, PTSD and self-harm behaviours. The goal of this study was to investigate gender, age, and mental health issues associated with dating violence among youth in the past 12 months. I also looked at relationships between dating violence and age-discordant relationships (i.e., the first sexual partner was older than legally allowed).

I conducted an analysis of the 2013 BC Adolescent Health Survey (BC AHS). This is a large school-based survey of youth across British Columbia, representing an estimated 97,654 BC youth in dating relationships, and 5,783 youth who reported dating violence.

The rates of reported dating violence were similar for boys and girls. Adolescent dating violence was significantly associated with all mental health outcomes. There were gender differences in the rates of these outcomes, where girls reported experiencing more adverse mental health outcomes compared to boys. Youth who reported dating violence were also significantly more likely to report an age-discordant first sexual relationship.

Understanding these relationships may help inform families, youth, health care providers, educators and the justice system about the nature of adolescent dating violence. This can also serve to direct future research towards screening and interventions associated with dating violence, mental health, healthy relationships and suicide prevention among youth.
Preface

Ethical approval for the original survey that is used in this study was received from the Behavioral Research Ethics Board at the University of British Columbia (UBC BREB # H12-02630).
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Dedication

My thesis is dedicated to my Grampy and late Nanny Nicholson, and my Mother and Father, the biggest supporters in all my education pursuits. They’ve taught me from day one the value of lifelong learning and the everlasting bond of love and family. Lots of love goes to my sisters, Emily and Andrea who have both inspired and believed in me from the time I was a little girl. Much love and appreciation goes to my dedicated partner, Johnny, who thoughtfully encouraged me and listened to my troubles many times along the way.
Chapter 1: Introduction

1.1 Problem Identification and Purpose

Canadian youth aged 15 to 24 accounted for 13% of the total 2011 population (Galarneau, Morissette & Usalcas, July 2013). The Canadian youth population has been on a steady decline since 1971 with projection to decrease to 11% by 2031 (Galarneau, Morissette & Usalcas, July 2013). Despite a decline in youth within Canada, dating violence is seen to be higher within the adolescent and young adult population compared to other age groups (Hotton Mahony, 2008; Statistics Canada, 2016). Seventy-one percent of youth reported being in a dating relationship by age 15 and among those who have engaged within a dating relationship, 55% had their first dating relationship by age 12 (Hotton Mahony, 2008). For most incidents involving adolescent victims of dating violence, the suspect was older than the victim (Hotton Mahoney, 2008). Adolescent dating violence places youth at greater risk for many unfavourable lifetime mental health outcomes and future adult intimate partner violence (Smith, White & Holland, 2013).

1.1.1 Dating Violence Definition

Before further discussing the magnitude of the problem, dating violence must be defined. Dating violence is defined broadly. The Royal Canadian Mounted Police defines dating violence as “an intentional act of violence (whether physical, sexual or emotional) by one partner in a dating relationship. It is abuse of power where one person tries to take control over another person.” (2013). School-based research studies seldom examine the extent of injuries, and instead try to capture whether physical violence has occurred (Bowen & Walker, 2015). This was true for the BC Adolescent Health Survey (BC AHS), which asked about dating violence (Smith, Poon, Saewyc & McCreary Centre Society, 2014). Within these school-based surveys, dating
violence is most often defined and questioned as physical assault or harm, such as hitting, kicking, slapping or pushing (Bowen & Walker, 2015), which are all intentional acts of violence. Most school-based studies reviewed do not examine sexual dating violence or other forms of physical and emotional abuse. Wekerle et al., (2009) studied dating violence victimization and the contribution of childhood emotional abuse. That study used the Conflict in Adolescent Dating Relationships Inventory (CADRI, Wolfe et al., 2001), which examines physical abuse, threatening behavior, sexual abuse, emotional and verbal abuse and relational aggression perpetrated in an adolescent dating relationship. Another exception is the 2013 National Youth Risk Behavior Survey, which uses secondary data cross-sectional analysis, assessing both physical and sexual teen dating violence within the survey (Vagi et al., 2015). They questioned sexual dating violence in the following question: “During the past 12 months, how many times did someone you were dating or going out with force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse).” (Vagi et al., 2015). School-based studies are more likely to ask separate questions about sexual violence, but it is not directly described as sexual dating violence. The term “intimate partner violence” includes physical and sexual violence, psychological aggression and stalking by a current or former intimate partner (Brieding et al., (CDC), 2015). Both terms are used interchangeably in this thesis.

1.1.2 Gender Definition

As detailed by the Canadian institute of health research (CIHR) (2015), “gender refers to the socially constructed roles, behaviours, expressions and identities of girls, women, boys, men, and gender diverse people. It influences how people perceive themselves and each other, how they act and interact, and the distribution of power and resources in society. Gender is usually
conceptualized as a binary (girl/woman and boy/man) yet there is considerable diversity in how individuals and groups understand, experience, and express it” (CIHR, 2015). Sex “refers to a set of biological attributes in humans and animals. It is primarily associated with physical and physiological features including chromosomes, gene expression, hormone levels and function, and reproductive/sexual anatomy. Sex is usually categorized as female or male but there is variation in the biological attributes that comprise sex and how those attributes are expressed.” (CIHR, 2015).

1.2 Significance of Problem

Large scale data on dating violence among youth is documented in two ways: self-reported survey data such as the United States Centre for Disease Control (CDC) and Statistics Canada and administrative data like the Canadian Uniform Crime Reporting Surveys (UCRS). Statistics Canada and the Canadian Uniform Reporting Surveys (UCRS) display domestic violence reported more often among women and adolescent girls compared to men and adolescent boys (Hotton-Mahorny, T., 2008; Statistics Canada, 2006; Statistics Canada, Canadian Centre for Justice Statistics, 2016). National school-based data is present within the United States, including the United States Centre for Disease Control (CDC) and the Youth Risk Behaviour Surveillance System (YRBSS), with reporting also higher among woman and girls compared to men and boys (Breiding, 2015; CDC, 2008; Kann et al., 2014).

The 2011 CDC National Intimate Partner and Sexual Violence (NIPSVS) survey found that 23% of women and 14% of men in the U.S. report having experienced severe physical violence (Smith et al., 2017). Additionally, it was found that approximately 7% of women and 4% of men who ever experienced rape, physical violence, or stalking by an intimate partner first
experienced some form of partner violence by that partner before 18 years of age (Smith et al., 2017).

In the U.S., the Youth Risk Behaviour Surveillance System (YRBSS) provides data from all regular public and private schools with students in grades 9-12 across 50 states, including the District of Columbia. Within 2013, among the 73.9% of students nationwide who dated or went out with someone during the 12 months before the survey, 10.3% reported being hit, slammed into something, or injured with an object or weapon with intent by someone they were dating or going out with one or more times during the 12 months before the survey. The prevalence was higher among female (13.0%) than male (7.4%) students (Kann et al., 2014).

In 2014, victims of intimate partner violence within Canada accounted for more than one quarter (27%) of all victims of violent crime reported to police (Statistics Canada, 2016). Four out of five victims of police-reported intimate partner violence were women. Women aged 15-24 have a considerably higher rate of reported intimate partner violence than men (Statistics Canada, 2016). During 2008, youth aged 15-24 accounted for 43% of dating violence incidents with 66% of female victims of sexual assault under the age of 24 (Hotton Mahorny, 2008). Per 2014 intimate partner violence data, the current dating partner was most often the perpetrator among youth aged 15 to 19 years (51%) and young adults aged 20 to 24 years (44%) (Statistics Canada, 2016). Dating violence accounted for 52% of police-reported incidents of intimate partner violence; thus, higher than spousal violence (Statistics Canada, 2016). Physical assault (77%) was the most common offence experienced by victims of police-reported intimate partner violence, followed by uttering threats (8%), and criminal harassment (6%) (Statistics Canada, 2016). Unlike the U.S., there are not any Canadian large-scale school-based studies that assess adolescent dating violence.
Dating violence incidence reported from police statistics is often representative of an “iceberg effect”, meaning there are many more cases that go undetected (Burczycka, 2016). Within the 2008 BC AHS data, 9% of BC male students and 6% of females who had a relationship in the previous year were deliberately hit, slapped or physically hurt by their boyfriend or girlfriend (Smith et al., 2009). Unlike large-scale self-reported data from Statistics Canada and United States Centre for Disease Control (CDC), the Youth Risk Behaviour Surveillance System (YRBSS) and the police reports from Canadian Uniform Crime Reporting Surveys (UCRS), reporting of dating violence were higher among boys in this provincial survey.

1.2.1 Gender Differences

There is a higher Canadian-wide reported incidence and severity of dating violence among young women than young men, (Statistics Canada, 2016), with studies often focused on girls (Sutherland, 2011; Teten et al., 2009). The need for research involving both boys and girls is required to better understand gender differences, especially considering studies within the adolescent population have not always demonstrated increased dating violence in girls versus boys (Orpinas et al., 2013; Policastro & Daigle, 2016; Smith et al., 2009). This is incongruent with the police and population-based data just discussed, in which reports are higher among females. For example, both intimate partner violence perpetration and victimization were found to be mutual among girls and boys in a grade 6-12 longitudinal study of 624 youth from Northeast Georgia (Orpinas et al., 2013). In addition, the U.S. National Longitudinal Study of Adolescent Health (1994-2008) determined that boys were more likely to experience intimate partner violence compared to girls (Policastro & Daigle, 2016). A study done by Johnson et al., (2015), used five waves of the Toledo Adolescent Relationship survey looking at age and intimate partner violence. It was found that for ages 13-16, the risk for perpetrating intimate
partner violence was similar for boys and girls; however, by age 17, female youth demonstrated a curve that averaged higher risk of perpetrating intimate partner violence than that for boys. Although perpetration is less studied, overlapping of perpetration and victimization has been an area of inquiry within adolescent dating violence research. In another national U.S. longitudinal study, 1058 randomly selected youth ages 14-21 were surveyed online pertaining to adolescent dating violence perpetration and victimization, involving detailed psychological, physical and sexual violence questions (Ybarra et al., 2016). Within this study, there was also an overlapping of perpetration and victimization for both boys and girls with girls reporting more psychological and sexual victimization. For perpetration, girls were twice as likely to report scratching, slapping or throwing something at their partner while boys were ten times more likely to report attempting to rape their partner. For victimization, girls were twice as likely as boys to report having their looks put down or having their partner say hurtful things in front of others, being slammed or held against a wall by their partner, and attempted rape. Boys were twice as likely as girls to report being scratched or slapped by their partner. These findings shed light on the nature of dating violence among girls and boys; however, gender differences in adolescent dating violence victimization and perpetration are inconclusive (Ybarra et al., 2016). Both the public and health care providers often misunderstand the incidence, prevalence or differences among boys and girls experiencing dating violence relationships in comparison to adults. This may be due to underreporting, lack of understanding of dating violence and the nature of adolescent romantic relationships (Glass et al., 2003; Exner-Cortens, 2014). Adolescent dating violence is an area of study that requires further inquiry to provide better understanding of the phenomenon for all care providers and to enhance mental health outcomes for youth. Many health care issues that arise in adolescence present differently than they do in adulthood. Recognizing what health
outcomes and trends are associated with dating violence is needed to guide health care practices, education, and policy development within facilities associated with youth.

1.2.2 Age-Discordant Relationships

Age discordance within dating relationships was found to be a predicting factor for dating violence in some studies (Hotton Mahorny, 2008; Volpe et al., 2012; 2013). Age-discordant relationships discussed in this study refer to illegal sex pairings. In Canadian law, the age of consent is 16 years (Government of Canada, Department of Justice, 2016). The Criminal Code provides “close in age” or “peer group” exception in which intimate partner age gaps are legal when a gap no more than 2 years for 12 and 13-year olds, and no more than 5 years for 14 and 15-year olds (Government of Canada, Department of Justice, 2016). An illegal age-gap in sexual relationships has been linked to mental health disparities, including depression and suicidality (Haydon & Halpern, 2010; Hines & Finkelhor, 2007; Loftus, Kelly & Mustillo, 2011).

1.3 Theoretical Underpinnings of Adolescent Dating Violence

The first adolescent dating violence study was published in 1983 (Henton et al). As discussed by Exner-Cortens (2014), the concept of adolescent dating violence is correlated with adult intimate partner violence theory, which includes attachment theory, feminist theory, and social learning theory. Feminist theory explains intimate partner violence as the gender-based domination of women by men within a patriarchal society. Social learning theory explains that family interaction patterns foster violence and abuse (Rakovec-Felser, 2014). Attachment theory draws from the belief that those predisposed to violence had insecure attachments as infants; hence, resulting in domestic violence in the future (McClellan, & Reed Killeen, 2000). These theories work together. Within a patriarchal society, families exposed to violence tend to model
after societal norms. In a home exposed to violence, early attachment is often disrupted, resulting in unhealthy abusive romantic relationships.

Unlike research related to adult dating violence, most research done about adolescent dating partner aggression comes from literature on normative adolescent relationships and development (Exner-Cortens, 2014). More recently Exner-Cortens, (2014) discussed adolescent dating violence theory through five theories of adolescent development: Sullivan and the interpersonal theory of psychiatry (1953), Erikson and the stages of psychosocial development (1963, 1968), Selman and the development of interpersonal understanding (1980), Kegan and the constructive-developmental framework (1980), and a behavioral systems conceptualization for adolescent romantic relationships (Furman & Wehner, 1994). For theoretical application towards adolescent dating violence, Exner-Cortens, (2014) examined these developmental theories based on the following select theoretical tenets: Anxiety and intimacy (Sullivan, 1953), Interpersonal identity (Erikson, 1963, 1968), Interpersonal negotiation strategies (Selman, 1980), Interpersonal embeddedness (Kegan, 1980) and Relationship views (Furman & Wehner, 1994). In Sullivan’s theory, there is a bidirectional connection between anxiety and intimacy, resulting in a fear of negative evaluation, which in turn can feed into an unhealthy relationship. Within Erikson’s stages of psychosocial development theory (1963, 1968) identity contributes to romantic relationships by seeing young love as an attempt to arrive at one’s own identity. Selman’s (1980) interpersonal understanding relates to adolescents’ inexperience and lack of development in interpersonal negotiation strategies, leading to conflict and unhealthy relationships because of a lack of maturely developed problem-solving skills. Kegan (1980) and the constructive developmental theory discussed interpersonal embeddedness, meaning that adolescents define themselves by their relationships, leading to enmeshment and continuation of unhealthy
relationships. Kegan also discusses self-silencing occurring out of fear of rejection, most often in adolescence. Lastly, the behavioural systems conceptualization from adolescent relationships (Furman & Wehner, 1994) draws on relationship views, meaning that insecurity in relationships were most strongly correlated with anxiety over being rejected, hurt or betrayed. It was proposed by Exners-Cortens (2014), that adolescent dating violence research within these tenets provides new direction into research inquiry, considering the key developmental aspects of adolescent dating violence within research findings. The above presented theories have been used as a theoretical framework for recent adolescent dating violence research to explain adolescent dating violence findings (Exners-Cortens, 2014). Reflecting on adult intimate violence theory, focusing on these tenets found in adolescent development draws on the attachment theory because insecure youth look outside the family for a more dependable primary attachment (Furman & Wehner, 1994). This can overlap with the social learning theory as well because within insecure attachments, domestic violence may have been witnessed. Feminist theory does not appear to directly connect with these developmental theories discussed about adolescent dating violence. Considering these concepts of adolescent development helps explain the key elements of dating violence during adolescence. This occurs by examining the relationship between romantic relationships, the developmental components related to their age group, and how these factors may promote acceptance of unhealthy relationships differently when compared with adulthood.

1.3.1 Mental Health and Adolescent Dating Violence

Despite the lack of clarity regarding gender differences of adolescent dating violence, a relationship has been identified between dating violence and poor health outcomes in boys and girls (Glass et al., 2003). There is a lack of research on dating violence in Canada; however, studies from the U.S. show a relationship between poor outcomes and dating violence. These
include physical injury, lasting mental health problems, suicidality, alcohol/drug use, unsafe sex, and both successive victimization and co-victimization (Exners-Cortens, Echenrode & Rothman, 2013; Foshee et al., 2013; Glass et al., 2003; Haynie et al., 2013; Howard, Debnam & Wang, 2013; Roberts, Klein & Fisher, 2003). A key mental health outcome related to adolescent dating violence is suicide, because there is an elevated risk of suicide within adolescence and young adulthood (World Health Organization, WHO, 2014).

1.4 Problem Identification

Our overall knowledge and understanding of adolescent dating violence in relation to mental health outcomes among Canadian adolescents is insufficient. In part, this is due to lack of large scale Canadian research. Moreover, past work has suggested gender differences in the incidence of youth dating violence were inconsistent across studies (Policastro & Daigle, 2016; Orpinas et al., 2013; Glass et al., 2003), requiring further inquiry among both boys and girls experiencing dating violence. Illegal age gaps within adolescent dating violence relationships also warrant further investigation into this element of intimate youth partner violence (Hotton Mahorny, 2008; Volpe et al., 2012; 2013). Understanding the health issues linked with adolescent dating violence is imperative to establish understanding and best practice in nursing assessment, care and prevention. Many lasting mental health problems, including suicidality, appear to be associated with exposure to dating violence among adolescents and adults, suggesting the importance of this current study (Ackard & Neumark-Sztainer, 2002; Ackard, Neumark-Sztainer, & Hannan, 2003; Belshaw et al., 2012; Hagan & Foster, 2001; Taliaferro & Muehlenkamp, 2014).
1.5 Statement of Purpose

The purpose of this study was to: examine the relationship between suicidality (including associated mental health outcomes) and adolescent dating violence among youth in BC; improve the quality of adolescent mental health care; provide suggestions for policy, education and nursing practice directions. I specifically examined self-reported suicidality as a common mental health outcome among adolescents. Related outcomes included suicidal ideations and past suicide attempts, extreme sadness/hopelessness, self-reported poor/fair mental health, self-reported depression, self-reported PTSD and self-harm behaviour. Gaining greater awareness of the association between dating violence and suicidality among Canadian adolescents can help justify screening for unhealthy relationships, which may be increasing youths’ risk for suicide attempts and various mental health issues. I also examined the link between age-discordant relationships, dating violence, and mental health issues, given research from other countries has found a higher risk of adolescent dating violence when teenagers have much older partners.

1.6 Hypotheses

Based on past BC AHS 2008, I hypothesized that there would be a close reporting of boys and girls who were exposed to dating violence (Smith et al., 2009). Based on literature review findings, I predicted higher associations of adverse mental health outcomes with reported dating violence. Based on higher reporting of mental illness in girls and women (McGuinness, Dyer & Wade, 2012; WHO, 2017), I anticipated higher levels of adverse mental health outcomes in girls. Based on the supporting literature and police reported data, I hypothesized higher levels of dating violence in those with illegal age gaps and mental health outcomes to be further associated within this population. I also predicted girls reporting dating violence and first time having sex illegal would have a larger association of mental health disparities such as PTSD and
depression, seen to be more strongly associated to women and girls (Callahan, 2003; WHO, 2017).

1.7 Guiding Research Questions

The research questions were:

1) Is there a higher prevalence of suicidality and associated mental health issues (self-reported suicidality, extreme sadness/hopelessness, poor/fair mental health, depression and/or PTSD and self-harm) among British Columbian youth exposed to dating violence compared to those are not exposed to dating violence in their relationships?

2) Do the mental health issues related to dating violence differ for boys compared to girls?

3) Are age-discordant sexual relationships (i.e., those outside of the close-in-age exceptions in Canadian law) associated with dating violence?

4) Do age-discordant relationships further predict mental health outcomes for boys and girls who have experienced dating violence?

1.8 Chapter Summary

Dating violence is a problem among adolescents and adults, but the existing research and theory suggests occurrence of dating violence among adolescents may have different explanations, including higher risks with age-discordant relationships, different rates for boys and girls than for adult men and women, and potential mental health consequences linked to mental health outcomes. The following chapter provides a synthesis of the current literature on adolescent dating violence, explaining its prevalence and the mental health outcomes associated with it. Literature regarding age-discordant relationships and the link to adolescent dating violence will also be reviewed. Literature on adolescent suicidality will also be presented and discussed in association with dating violence.
Chapter 2: Literature Review

2.1 Introduction

This chapter includes an analysis of current literature informing the concept of adolescent dating violence, its prevalence, and the key mental health outcomes correlated with it. I will also describe the evidence of the relationship between youth dating violence and age-discordant relationships, and provide focused detail on youth suicidality, a significant contributor to mortality of youth worldwide. Gaps in literature provide the rationale for the direction of my research.

2.1.1 Inclusion/Exclusion Criteria and Identification of Studies

First, statistical data taken from surveillance conducted by Statistics Canada or the United States Centres for Disease Control (CDC) were included to document the prevalence of adolescent dating violence. Primarily North U.S.-based peer-reviewed studies of 10 or less years old were used except for some seminal literature. Cross-sectional and longitudinal design studies were included. Most of the literature consisted of larger scale survey/questionnaire studies that were descriptive, correlational and exploratory in nature. Qualitative studies were included in the review to gain a deeper understanding of the concept and the health outcomes associated with dating violence during adolescence. Four major databases were used to identify studies: CINAHL, Pubmed, Pyscinfo and Academic Search Complete. Keywords used to conduct the initial search included: dating violence/intimate partner violence, adolescents/adolescence/teens, health outcomes/correlates/consequences and mental health outcomes. Additional search terms were used after exploring MESH headings and subject headings; these included suicidality/suicide/suicide attempt/ideations, binge drinking, eating disorders, drug
abuse/marijuana/street drugs/cocaine, smoking, depression, anxiety, self-harm behaviour, victimization, perpetration, subsequent victimization and post-traumatic stress disorder/PTSD.

2.2 Review of Current Evidence

2.2.1 Health Outcomes and Dating Violence in Adolescence

Various health outcomes are associated with adolescent dating violence, which may alter health within young adulthood. Mental health, physical well-being, academic success, socioeconomic status, healthy life choices and future interpersonal relationships can be altered unfavourably by the negative health outcomes associated with dating violence. Firstly, those inflicted with dating violence endure physical injury and harm (Collin-Vézina et al., 2006; Muñoz-Rivas et al., 2007). Injury severity increases with age (Collin-Vézina et al., 2006; Muñoz-Rivas et al., 2007). Physical self-reported health declines from adolescence to adulthood for those exposed to dating violence according to a recent longitudinal study (Copp et al., 2016). High risk sex, unplanned pregnancy, sexually transmitted diseases (STDs), adult intimate partner violence victimization, are also linked to dating violence (Exner-Cortens, Echenrode & Rothman, 2013; Foshee et al., 2013; Glass et al., 2003; Haynie et al., 2013; Howard, Debnam & Wang, 2013; Roberts, Klein & Fisher, 2003).

2.2.2 Mental Health Outcomes and Dating Violence in Adolescence

Dating violence has a significant impact on mental health across the life span. Adolescent dating violence research demonstrates associations with several mental health problems, substance use problems and psychosocial outcomes that are strongly linked to mental health. For example, depressive and anxiety symptomatology, suicidality, post-traumatic stress disorder (PTSD) and eating disorders; substance use are all linked to dating violence (Baker, 2014; Bonomi et al., 2013; Cisler et al., 2012; Exner-Cortens, Echenrode & Rothman, 2013; Glass et
al., 2003; Goldstein et al., 2008; Hanby et al., 2012; Haynie et al., 2013; Howard, Debnam & Wang, 2013; Johnson et al., 2014; Roberts, Klein & Fisher, 2003). Similarly, problems such as smoking, heavy episodic drinking, use of marijuana and other drugs are more common among those who experience dating violence (Exner-Cortens, Echenrode & Rothman, 2013; Foshee et al., 2013; Glass et al., 2003 all; Haynie et al., 2013; Howard, Debnam & Wang, 2013; Roberts, Klein & Fisher, 2003). In some studies, low self-esteem and antisocial behavior have also been linked to dating violence. (Exner-Cortens, Echenrode & Rothman, 2013; Meir, Erickson, & McLaughlin, 2016; Roberts, Klein & Fisher, 2003; Sears & Bryers, 2010).

Within a Canadian cohort study that assessed child sexual assault and dating violence among 929 girls between the ages of 12 and 15, mental health disorders were higher for adolescent girls with multiple victimizations (Hébert et al., 2008). Two U.S. cross-sectional studies presented a relationship between adolescent dating violence and anxiety (Goldstein et al., 2008; Hanby et al., 2012). An eastern Canadian study of 627 adolescents investigated mental health correlates with dating violence exposure. Low self-esteem was found to be associated with psychological, physical and sexual violence (Sears & Bryers, 2010). Another U.S. cross-sectional study using a national sample of 2,203 students, demonstrated increased depressive signs and psychological problems for both boys and girls experiencing dating violence (Haynie et al., 2013). The Toledo Adolescent Relationship Study, a longitudinal study from 2000-2007 that included 1,273 participants, aged 12-19 at first interview and 17-24 years at final interview, examined the relationship between adolescent dating violence and depression (Johnson et al., 2014). Intimate partner violence of any kind for both boys and girls led to a significant increase in the occurrence of depressive symptomology at second interview. In contrast, in an older U.S. longitudinal study of approximately 10,000 adolescents using data from two time points, 12
months apart, exposure to dating violence increased depression for girls and boys, but was stronger for girls (Hagon & Foster, 2001). Discrepancies between boys and girls were also identified in past research of adolescent dating violence and depression (Ackard et al., 2007). An Ohio based study of 585 women aged 18-21 investigated the adolescent/young adult period (Bonomi et al., 2013). Those who reported physical/sexual dating violence were at almost double the risk for depressive symptoms than those without victimization (Bonomi et al., 2013). Self-harm related behaviour and its association with dating violence are less researched; however, within a Hawaiian focus group study, it was associated with teen dating violence (Baker et al. 2015).

PTSD is another health outcome associated with adolescent dating violence (Callahan et al., 2003; Rizzo et al., 2010; Wolitzky-Taylor et al., 2008). Women are the largest single group affected due to higher prevalence of sexual violence (WHO, 2017). Intimate partner violence exposure predicted PTSD in a national longitudinal study of youth in the U.S aged 12-17 years (Cisler et al., 2012). A cross-sectional study assessed gender differences among 190 southern Michigan high school students, aged 13-19, using a self-administered questionnaire (Callahan, 2003). Higher levels of PTSD among those exposed to dating violence were seen and girls had significantly higher PTSD scores than boys (Callahan, 2003).

Eating disorders are a psychiatric disorder associated with adolescent dating violence and other forms of violence. Bonomi et al., (2013) studied 585 participants, finding that girls who were exposed to physical/sexual violence were at higher risk of dieting, fasting and vomiting to lose weight. Girls reporting psychological violence were at increased risk of both fasting and vomiting. For boys, there was not a difference based on the type of abuse. In contrast, Exner-Cortens et al., (2013), discovered there was no significant association between dating violence
exposure and extreme weight control. Within a Quebec study of 1,259 high school students aged between 14 and 19 years who answered a self-report questionnaire, being a victim of peer sexual harassment and of dating violence was associated with a partial mediating effect of hostility in girls. On the contrary, there was a complete mediating effect of emotional distress for boys (Boivin et al., 2011).

2.2.3 Health Risk Behaviour and Dating Violence

In addition to mental health issues, adolescent dating violence is associated with health risk behaviours, such as problematic substance use and sexual risk (i.e. STDs, unplanned pregnancies and early onset of sexual intercourse). Within a sample of 550 girls (mean age = 15) drawn from a larger representative community sample in Quebec, Canada, three forms of dating violence victimization (psychological, physical, and sexual) were examined. Results showed that those with a higher level of affiliation with deviant peers were more likely to endorse a risky lifestyle and experience higher rates of all forms of dating violence victimization (Vézina et al., 2011).

Many studies have examined the association between substance use and adolescent dating violence, finding a correlation with tobacco smoking (Ackard et al., 2007; Bonomi et al., 2013), alcohol misuse and binge drinking (Ackard et al., 2007; McNaughton Reyes et al., 2012; Temple et al., 2013) and drug use (Ackard et al., 2007; Haynie et al., 2013). Within the U.S. longitudinal study in St. Paul/Minneapolis, Minnesota, among 694 older adolescent boys and 822 older adolescent girls, 23 boys and 102 girls reported dating violence (Ackard et al., 2007). Comparing with non-dating violence exposed participants, it was suggested there was a commencement or worsening of tobacco and marijuana use for girls and an uptake or exacerbation of tobacco use in boys. Also, Exner-Cortens et al., (2013) studied the longitudinal
relationships between adolescent dating violence, (psychological and physical), and substance use (smoking, heavy episodic drinking, marijuana, other drugs). This national sample of 5,681 U.S. adolescents aged 12-18 reported dating violence at wave 2 and then five years later for wave 3. For boys, there was a correlation of marijuana use with psychological only abuse. Girls exposed to both physical and psychological abuse had increased probability of smoking. Another U.S. school-based longitudinal study of 1,042 ethnically different students investigated the temporal ordering of substance use and dating violence, finding that baseline alcohol and hard drug use predicted physical dating violence; although, no correlations were found with marijuana use (Temple & Freeman, 2011; Temple et al., 2013). Shorey et al., (2015) studied 882 adolescents from seven public high schools in Texas across a year, finding alcohol use and dating violence to be predictors of sexual risky behaviour. Also, in a longitudinal study, 9,421 U.S. young adults ages 15-26 (1995-2008) showed that adolescent marijuana use, particularly that consistent throughout adolescence was linked with both perpetration and victimization by intimate partner violence in early adulthood (Reingle et al., 2012).

A four-wave longitudinal study by Foshee et al., 2013 in two rural North Carolina counties looked at the effects of psychological and physical (including sexual) dating violence on internalizing symptoms, problematic substance use, academic aspirations/grades and family/friend relationships. Increased alcohol use was apparent in both boy and girl victims of psychological abuse while cigarette use increased for those victims of physical victimization. For girls, physical victimization predicted increased marijuana use. The relationship between violence and alcohol/drug use is mixed. An Australian study by Scholes-Balog, Hemphill, Kremier, & Toumbourou (2013) gives some insight. They looked at the longitudinal relationship between alcohol and intimate partner violence, but not specifically all dating violence forms.
Overall, alcohol use during early and mid-adolescence predicted violence two years later whereas a bidirectional relationship was found between heavy episodic drinking and violence. A Belgium school-based study called the “Teen Digital Dating Survey” included 1,187 adolescents, ages 16-22, with 466 indicating currently in a relationship (Van Ouytsel, Ponnet, & Walrave, 2016). This study found a significant association between dating violence and drinking alcohol at a younger age (Van Ouytsel, Ponnet, & Walrave, 2016). Understanding whether alcohol/drug misuse comes before or after violence exposure is an ongoing area of misunderstanding in the literature (Devries et al., 2013; Bowen & Walker, 2015). This is because heavy alcohol use by either partner within a relationship has been shown to increase the risk of violence (Jewkes, 2002).

Regarding sexual risk, Coker et al, (2000) found an association between severe physical violence and being a sexual risk-taker. The study by Bonomi et al., (2013) looked at gender differences from age 13-19. Girls who had reported physical/sexual dating violence were more likely to partake in frequent sexual behaviours, including five or more intercourse and oral sex partners. The correlation was not seen in boys. In contrast, Howard, Wang and Yan (2008) found U.S. adolescent boys more likely to report recent sexual partners and unprotected sex along with dating violence. Howard, Debnam & Wang, (2013) did a longitudinal study using the national Youth Risk Behaviour Surveys of U.S. high school students between 1999 and 2009. Studying only girls, they found the odds of being a victim of dating violence were significantly associated with having multiple sex partners and having unprotected intercourse. A cross-sectional study in the Boston area studied teen dating violence perpetration along with sexual transmitted infections (STIs) and sexual risk behaviours among males age 14-20. Teen dating violence perpetration was significantly associated with self-reports of STIs, which may explain increased STIs in female
adolescents reporting teen dating violence victimization (Reed et al., 2014). In the Canadian study previously detailed, (Sears & Bryers, 2010) girls’ worst non-sexual and sexual dating violence experience was associated with being upset, with low self-esteem. Sexual risky behaviour is again noted in relationships with partner age gaps (Volpe et al., 2012; 2013). Clarity and transferability is lacking within this correlation because whether sexually risky behavior is a result of adolescent dating violence or a precursor to it is still speculated within both literature and practice (Shorey et al., 2015).

2.2.4 Subsequent Victimization and Dating Violence

Those who experience dating violence are also likely to have co-occurring and subsequent victimization (Bowen & Walker, 2015; Exner-Cortens et al., 2013; Gomex, 2011; Hamby et al., 2012; Smith et al., 2003; Temple et al., 2013). Subsequent victimization places adolescents at risk for chronic negative health outcomes into adulthood. Within a study of 1,680 adolescents aged 12-17, the co-occurrence of dating violence with other types of victimization was examined (Hamby, 2012). Data showed physical adolescent dating violence was significantly associated with many kinds of victimization such as witnessing victimization, other physical assaults and sexual victimization. Those exposed to dating violence were more likely to be poly-victims than those youths not experiencing dating violence. A longitudinal study examined physical dating violence perpetration in 1,042 adolescents at study commencement and a year later (Temple et al., 2013). Just over half of the adolescents reporting dating violence at baseline also reported dating violence a year later. Within the longitudinal study by Exner-Corten et al., 2013, including 5,681 adolescents age 18-23, collecting data at baseline and five years later, it was discovered that for both boys/men and girls/women who reported dating violence at baseline had an increased rate of adult intimate partner violence victimization five years later.
Within a convenience sample of 551 college women from a mid-sized U.S. Midwestern University, a variety of standardized psychological measures were used to assess victimization baseline and at 2 months’ follow-up (Rich et al., 2005). Data demonstrated that early physical abuse could be a risk factor for future sexual assault and women who experienced sexual assault in adolescence were four times more likely than non-dating violence participants to be raped during the short follow-up period. Smith et al., (2003) also obtained data from 1,569 girls who experienced adolescent dating violence. They were significantly more likely to be a victim of physical violence in college. Patterns of re-victimization and co-victimization continued throughout college years.

2.2.5 Suicidality and Adolescence

Youth account for the highest risk population for suicide; it is the second leading cause of death among adolescents and young adults age 15-29 years, (World Health Organization, WHO, 2014). In Canada, suicide accounts for 24 percent of all deaths among 15-24-year olds and is the second leading cause of death in youth ages 10-24 (Canadian mental health association, 2016). In British Columbia, suicide is the second leading cause of death among youth aged 12-18 (Smith et al., 2009). The 2008 BC AHS showed a decrease in students who seriously considered suicide (12%) and attempted suicide (5%) in the past year compared to previous years of the survey. Suicidality was higher among those adolescents exposed to all types of violence; however, a link between suicidality and dating violence was not studied (Smith et al., 2009). There is a wide range of ages in the literature defined as “youth,” which may further complicate the study of this population. In my research, I am focusing on adolescents aged 12 to 18 years.

Sun (2011) analyzed suicidal behavior in the literature, discussing three classifications: “suicide-related ideation”, “suicide-related communication”, and “suicide-related behavior”.
Adolescent suicidal behaviour is one of the most common reasons for referral to an emergency department (Horesh et al., 2004). In adolescents, interventions have been implemented differently due to developmental level and additional risks, placing them at higher threat statistically (Rudd & Joiner, 1998). For instance, a systematic review of the suicide phenomena in adolescents found several risk factors that may direct the successful development of prevention programs (Evans et al., 2004). Relationships were found between suicidality and the following correlates: mental health difficulties (particularly depression), physical/sexual violence history, having a friend or family member who has committed suicide, peers who have engaged in suicidal behavior, poor relationships with parents, poor school attendance or performance, drug and alcohol use and non-heterosexual orientation. It was noted that identifying these risk factors are important in the prevention of suicide. An older systematic review of prevention programs for adolescents, (Ploeg et al., 1996), portrayed the need for multi-agency programs, healthy school climate, community and caregiver linkages, peer involvement, social/life skills training, early intervention and individualized attention.

Literature confirms suicide risk factors among adolescents and care/education needs may differ from adults, even young adults (Evans, 2004). Some suicide risk factors identified as specific to adolescence are: impaired parent/child relationship, peer relationships, impulsivity, trauma history, and lesbian, gay, or bisexual orientation, or transgender gender identity (Saewyc, 2013; Varghese & Gray, 2011; Epstein & Spirito, 2009; Waldrop et al., 2007; Bridge et al., 2006; Evans et al., 2004). Hopelessness, hostility, negative self-concept and isolation were also identified as psychosocial risk factors (Rutter & Behrendt, 2004). Knowing the trauma, physical/sexual violence and poor peer relationships associated with dating violence, these factors suggest its connection with suicidality. Given the large age range of adolescents and
young adults who appear at risk for suicide (age 15-29), there is a need for further research in adolescent suicide because those with risk factors as teenagers may need greater community support and follow-up as they become adults.

2.2.6 Suicidality and Dating Violence

The relationship between dating violence and suicidality is an important area of research for adolescent health. Many of the suicide risk factors identified overlap with the health outcomes associated with dating violence. Adolescent dating violence has been linked to suicidality in some studies (Ackard & Neumark-Sztainer, 2002; Ackard & Neumark-Sztainer, & Hannan, 2003; Belshaw et al., 2012; Hagan & Foster, 2001; Taliaferro & Muehlenkamp, 2014). Other research shows unclear relationships between dating violence and suicidality (Ackard et al., 2007; Howard Wang & Yan 2008; Olshen et al., 2007). A large U.S. school population-based study of 70,022 youth in grades 9-12 identified dating violence as a risk factor for both suicidal ideation and suicide attempts (Taliaferro & Muehlenkamp, 2014). For both genders, dating violence victimization was associated with greater suicide attempts versus those who had just suicidal ideations. Saewyc & Chen, (2013) showed a significant relationship between violence exposure and suicidality.

In contrast, in a school-based New York City youth risk behavior survey of adolescents aged 14 and older, the association between dating violence and suicide behaviours was only significant for girls (Olshen et al., 2007). The national Youth Risk Behaviour Surveys of U.S. high school students between 1999 and 2009 showed no relationship between adolescent dating violence and suicide attempts; instead, severe violence and sexual victimization was more likely associated with suicidality (Howard, Debnam & Wang, 2013). The two-wave U.S. longitudinal study by Ackard et al., (2007) also showed unclear results. Boys and girls who reported dating
violence at wave 1 had more suicide attempts in wave 2 than those who did not experience adolescent dating violence, but adolescent dating violence was only associated with suicidal ideation for boys. Suicidal history and depression were not controlled in these analyses, which was a limitation the researcher identified. An older longitudinal study concluded a relationship existed between adolescent dating violence and suicide for both boys and girls (Hagan & Foster, 2001). Much of this research is conducted within the U.S., with almost no Canadian research about adolescent dating violence and suicidality.

Adolescent suicide attempts were examined in relation to violence victimization within a Western Canadian cross-sectional study. Violence victimization was implicated in most suicide attempts (Saewyc & Chen, 2013). Out of the 3.3% of males and 6.6% of females who reported suicide attempts in the past 12 months, violence victimization was common for two-thirds of boys and nearly three-quarters of girls. Population-attributed fractions indicated that reducing all forms of violence could decrease the chance of suicide attempts. For boys, eliminating verbal violence victimization would result in reduction in suicide attempt incidence by about 40%. By preventing physical violence, suicide attempt could be reduced by 66%, and eliminating sexual violence could reduce it by 33%, (Saewyc & Chen, 2013). Among girls, suicide attempt could be reduced up to 31% by eliminating verbal violence, 57% by eliminating physical violence, and 41% by eliminating sexual violence (Saewyc & Chen, 2013). For boys and girls, the population-attributable fractions for suicide attempt among those experiencing any form of violence was nearly 80% (Saewyc & Chen, 2013).

Except for this single Canadian study, Canadian research is lacking, and current examination of adolescent dating violence and suicidality needs clarity. Both boys and girls are not always studied together, to account for gender differences. Within the literature, varied
results among different studies exist between adolescent dating violence and the many mental health outcomes, showing varied results when comparing the different studies. Due to primary U.S. studies, generalizability for Canada is questionable.

2.2.7 Relationship Age Gaps and Adolescent Dating Violence

Age difference within adolescent dating violence relationships is a noteworthy factor identified in the literature. Adolescents with older sexual partners are more likely to experience relationship violence and unwanted/coerced or unsafe sex (Manlove et al., 2005; 2006; Marin, et al., 2000; 2006; Oudekerk, Guarnera & Reppucci, 2014; Volpe et al., 2012; 2013). In Canadian law, the age of consent is 16 years (Government of Canada, Department of Justice, 2016). The Criminal Code provides “close in age” or “peer group” exceptions in which intimate partner age differences are legal when a gap is no more than 2 years for 12 and 13-year olds, and no more than 5 years for 14 and 15-year olds (Government of Canada, Department of Justice, 2016). In the Canadian Uniform Crime Reporting data 2 (UCR2), for most incidents involving adolescent victims of dating violence (88%), the suspect was older than the victim (Hotton Mahorny, 2008). Approximately 30% of incidents involved an accused who was one to two years older, 40% were three to five years older, 13% were six to ten years older, and 6% involved an accused who was eleven or more years older than the victim (Hotton Mahorny, 2008). Again, this large-scale prevalence data is based on crime reports, and other population-based studies are U.S based, which is not as reliable or generalizable. Manlove et al., (2006), did a study using the 2002 U.S. National Survey of Family Growth data from 1,838 females and 1,426 males age 18-24. Among those having a first sexual experience before age 16 with an older partner, one in four females reported sex was non-voluntary. A U.S. cross-sectional study of 155 adolescent girls looked at age difference, power, intimate partner violence and condom use. They found no relationship
between condom use and physical or psychological violence severity, regardless of partner age differences (Volpe et al., 2013). A Virginia study with a purposeful sample of 201 youth age 13-18 found the wider the age gap between adolescents and their romantic partner, the more likely physical, emotional or sexual victimization occurred over the course of the relationship (Oudekerk, Guarnera & Reppucci, 2014). The generalizability of this study may be limited because participants were all low income and at risk for poor romantic relationships. Adolescents in age-discordant relationships are at higher risk for depression (Haydon & Halpern, 2010; Loftus, Kelly & Mustillo, 2011) and suicidality (Hines & Finkelhor, 2007). In the U.S. National Longitudinal Study of Adolescent to Adult Health, (Add Health), with 1,440 females studied, mental health was related to age-discordant relationships when there was more than a year age gap. Female participants with older partners, whether they had sex or not, had a significant link to depression and lower self-esteem (Meir, Erickson, & McLaughlin, 2016). It appears the association with dating violence, illegal age pairings and mental health is an area of limited research requiring further investigation to clarify the relationship. After critiquing the literature, it is apparent further population-based Canadian research is necessary to explore the correlation of adolescent dating violence and age-discordant relationships. This can help better understand the health outcomes of adolescent dating violence and this complex association.

2.2.8 Adolescents’ Attitudes/Knowledge of Dating Violence

Understanding how youth interpret dating violence is unclear. Sears & Bryers examined adolescents' perception of abuse, finding generally, young people expressed difficulty distinguishing abuse from “just kidding around” or demonstrating caring (2010). A recent longitudinal study of 1,042 ethnically diverse high school students in Texas found the acceptance of dating violence was also found prevalent through tolerance of psychological abuse (Temple et
al., 2016). Lack of understanding regarding what constitutes dating violence may lead to underreporting it in surveys and to justice, community and health authorities. Future research requires a definition of dating violence prior to asking about it.

### 2.2.9 Current Acute Health Care Practices in Relation to Dating Violence Screening

Recent research has discussed the need to screen for adolescent dating violence in emergency settings (Potera, C., 2014). Currently, within adult acute health/mental health care, domestic violence is routinely screened. For example, at the Vancouver General Hospital (VGH) in British Columbia, there is routine screening, assessment, treatment, documentation and referral at intake for adults presenting to the emergency department, pre-assessment unit, and clinical inpatient units (Vancouver Coastal Health, 2014). Youth are not screened for dating violence routinely in acute pediatric care facilities unless evidence in the physical/mental health assessment indicates a need for investigation of dating violence. Unlike adults, it is likely these clients will not be returning to the residence of the partner who may be abusing them; thus, this issue has not been routinely at the forefront of pediatric practice. Such things as peer abuse and parental/caregiver or sexual violence are more often screened. Community or public health nursing within the school curriculum does prevention interventions, but again, minimal screening is done, and little linkage is made between the health outcomes discussed and dating violence. This results in minimal standardized screening for youth dating violence for high school boys and girls within our province and nationwide.

### 2.2.10 Nursing care and Adolescents

Nursing care among adolescents occurs across many areas of practice; however, those clinical areas most often in contact with adolescents include acute care pediatrics, acute child and adolescent mental health care, and public health or community nursing. Prevention of dating
violence and efforts to support healthy relationships may take place within public health or community nursing through school curriculum; however, little dating violence screening is done routinely within acute care settings. Recognizing the relationship between dating violence and suicidality (Taliaferro & Muehlenkamp, 2014) draws attention to the therapeutic nurse-patient relationship, attributed as pivotal for those who are suicidal or at risk (Sun et al., 2006). Nurses are responsible for common suicide interventions such as prevention and screening within their care (Sun et al., 2006).

2.3 Gaps in Literature

Adverse consequences that occur alongside dating violence can result in short-term negative health outcomes that continue into adulthood. Within cross-sectional research, a range of factors associated with adolescent dating violence were identified, such as depression, suicidality, PTSD, anxiety, alcohol and drug use, eating disorders, self-harm behaviours, and unlawful romantic relationship pairings. The longitudinal studies reviewed give a more comprehensive understanding of the sequential ordering of health outcomes for adolescent dating violence. Isolating the timing of variables was still unlikely within research, making it hard to find a direct causal link between adolescent dating violence and the negative outcomes discussed. Much of the research is U.S. based and no large population-based data exists within Canada. With awareness of the relationships identified within the longitudinal research discussed, population-based cross-sectional data can identify associations prominent in this population. Canadian research can give insight into the health outcomes linked to adolescent dating violence specific to Canadian youth; thus, directing health care and future research needs for our province and country.
In addition, as recommended by the CIHR Institute of Gender and Health it is expected that researchers integrate gender and/or sex into their research designs because doing so makes health research more ethically sound, rigorous and useful (Institute of Gender and Health Research, CIHR, 2017). Health outcomes among boys and girls have been shown to be both similar and different in the research literature. Some distinctive findings among boys experiencing dating violence were: suicidality, antisocial behaviours, and marijuana use (Exner-Cortens, et al, 2013; Haynie et al., 2013). Fewer studies on dating violence pertaining to males only exist and those that only study females decrease equal representation of both genders. Research including both adolescent boys and girls, analyzing the similarities and differences is needed. One study argues there was no difference in the occurrence of dating violence between sexes (Howard, Wang & Yan, 2008). In contrast, another study concluded girls’ higher odds of depression by age 18 was correlated with girls’ higher likelihood of experiencing intimate partner violence (Dunn et al., 2012). As previously discussed, differences were apparent in suicidality between sexes. This inconclusiveness suggests the need for research of both genders.

Drawing on the past large population-based study from Western Canada, which demonstrated a strong relationship between suicide attempts and ideations in relation to violence exposure, I concluded further investigation was necessary. The association between suicidality and dating violence alone has not been studied in Canada; however, review of the literature demonstrated strong evidence that this relationship is a critical area of health care that needs further research, especially among Canada data sets that include both boys and girls.

2.4 Implications for Research

Large-scale research in Canada is a key need within this study area. Examining the trends, differences and similarities across boys and girls reporting dating violence is imperative
to comprehend the incidence, adverse mental health outcomes and service needs of adolescents experiencing dating violence. Analyzing the association between dating violence and key mental health outcomes present within literature will be required. Further, investigating the correlation of adolescent dating violence with history of illegal first sex partner age gaps can draw greater perspective on this possible risk factor for intimate partner violence.

2.5 Chapter Summary

From the literature, it is apparent many health outcomes relate with adolescent dating violence, and mental health disparities are key associations with this societal concern. Key themes emerged, including differences between genders, age-discordant romantic relationships leading to dating violence, temporal ordering of health outcomes associated with dating violence and the link between dating violence and suicidality.
Chapter 3: Research Methods

3.1 Introduction

In this chapter, the methods and methodology used for the study will be described. The purpose of my study was to increase understanding of correlations of adolescent dating violence within Canadian youth while focusing on the associated health outcomes, gender differences and illegal age discordance relationships. A quantitative method of inquiry was used for this research project because of the research questions posed. These questions require a large sample size for increased validity and generalizability. I will first describe the theoretical perspective I used to guide this study, followed by a description of the research design, an explanation of the population of interest, inclusion criteria, sampling strategy, and overview of the original recruitment methods, procedures and data collection. I will then identify the statistical methods used for data analysis, and ethical considerations.

3.2 Theoretical Perspective/Lens

My theoretical lens was the developmental traumatology theory of stress, (DeBellis et al., 1999b; 2001; 2002; 2010), underpinned by both Selye’s Stress Theory (1979) and Lazarus & Folkman’s psychological theory of stress (1984). Firstly, Selye’s stress theory states that an event that threatens one’s well-being (a stressor) leads to a three-stage bodily response including: alarm, resistance, and exhaustion (1979). Secondly, Lazarus & Folkman’s psychological theory of stress is defined as a two-way process, involving the production of stressors by the environment and the response of the individual exposed to these stressors (1984). This led to the development of cognitive appraisal: the personal interpretation of a stressor as a threat or not.

Based on both the physical, (neurological and physiological changes), and mental health/psychosocial effects of stress that is strongly representative in dating violence research,
the primary theoretical perspective chosen is the *developmental traumatology theory* of stress (DeBellis et al., 1999b; 2001; 2010). The basis of this theory has six foundational assumptions. The first assumption is that there are fixed ways the brain and body can respond to stressors. The second assumption is that the nature of the stressor is a dysfunctional/traumatized interpersonal relationship, meaning those of trust or authority and is often chronic. The third assumption is that abuse in childhood may be more damaging than trauma faced in adulthood due to interactions between trauma and psychological neurodevelopment. The fourth assumption is that the biological stress system reactions will be based on several principles. These include the nature of the stressor, the chronicity, the individual differences in biological stress systems regulation and the ability of biological stress systems to either preserve homeostasis in the face of prolonged and severe stress or permanently change. The fifth assumption is that PTSD symptoms are common sequela of severe stressors. The sixth assumption is that these changes in biological stress systems cause psychiatric symptoms, particularly symptoms of PTSD (DeBellis et al., 1999b; 2001; 2002; 2010). PTSD can lead to other comorbidities such as chronic depressive disorders, suicidal ideation/attempt, personality disorders and conduct disorders (DeBellis et al., 1999b; 2001; 2002; 2010). As apparent in the literature review, this theory connects with the unfavourable mental health outcomes associated with dating violence.

Considering the age group of study that includes youth grades 7-12, or ages 12-18 years, who still have developing brains, this theory specific to children and adolescents seemed appropriate. In addition, as articulated in chapter 1, use of the five developmental perspectives theories discussed by Exner-Cortens (2014), will also be incorporated with my theoretical lens. These theories include: Sullivan and the interpersonal theory of psychiatry (1953); Erikson and the stages of psychosocial development (1963, 1968); Selman and the development of
interpersonal understanding (1980); Kegan and the constructive-developmental framework; (1980) and a behavioral systems conceptualization for adolescent romantic relationships (Furman & Wehner, 1994).

3.2.1 Gender Differences

A secondary consideration within my theoretical lens was informed by gender differences that exist in mental health issues among men and women. According to the World Health Organization, rates of psychiatric disorders are almost identical for men and women, but prominent gender differences are found in the specific disorders that manifest (2017). Age of symptom onset, frequency of psychotic symptoms, course of these disorders, social adjustment and long-term outcomes all differ by gender (WHO, 2017). Gender differences present in society may affect a clear understanding of the mental health differences between men and women. Gender differences exist most often in the treatment and diagnoses of psychological disorders (WHO, 2017). Doctors are more likely to diagnose depression in women than men (WHO, 2017), even when men have the same symptoms or comparable scoring results of standardized measures of depression (WHO, 2017). Women are more prone to be treated with mood altering psychotropic drugs (WHO, 2017).

Gender differences happen in the rates and presentation of common mental health disorders. For example, women predominate in depression, anxiety and somatic complaints (WHO, 2017). How mental illness presents can differ between genders. Unlike women, men are more apt to “act out”, with a link between depression and anger attacks, or experiencing inappropriate rage, at three times the rates of women (Winkler et al., 2006; Oliffe, 2009; 2016). As discussed by Oliffe (2009; 2016), “masculinities” influence depression in men, and how depression may present is often different from how it manifests in women. Men may engage in
risk-taking behavior and avoid health-promoting practices. Oliffe (2009; 2016) discusses that studies indicate relationships between gender role conflict and men's depression. Social stigma is reinforced by gender stereotypes in susceptibility of women’s emotional problems and men’s alcohol problems, constraining how men and women seek help and are diagnosed (WHO, 2017). Although women are more often diagnosed with depression, men are more likely to commit suicide (Oliffe, 2009; 2016). Women are the largest single group affected by PTSD, and research connects this to higher prevalence of sexual violence (WHO, 2017). Men have higher rates of alcohol dependence and are greater than three times more likely to be diagnosed with antisocial personality disorder (WHO, 2017). These gender differences must be considered when assessing the outcomes associated with dating violence within this research study.

3.3 Study Design and Procedures

This descriptive study used cross-sectional population-based data from the 2013 school-based British Columbia Adolescent Health Survey (BC AHS). The BC AHS is a province-wide cluster-stratified survey of health and risk behaviors among students enrolled in grades 7 through 12 (Saewyc, Stewart & Green, 2014). This included representative sampling of youth living within Fraser, Northern, Interior, Vancouver Coastal, and Vancouver Island Health Authorities. Stratified independent random samples of classrooms were selected in each region/grade level.

Once permission to participate had been received, public health nurses administered the BC AHS anonymously to youth in their high school classrooms. The survey took approximately 45 minutes to complete. Students recorded their answers on an answer sheet. The survey was administered only in English. Recruitment was based on school-attendance within participating British Columbia school districts. This means youth who were absent that day, had limited English language comprehension, literacy challenges, or were not attending a mainstream class
were not included in these results.

3.4 Sample

All students enrolled in each selected classroom fell into the target sample. Survey data from the 29,832 students who provided valid data were weighted to provide an accurate representation of all 260,632 public school students in grades 7 through 12 in all regions of the province, including those attending schools in non-participating school districts (Saewyc, Stewart & Green, 2014). The overall response rate for the 2013 survey was 76% (Saewyc, Stewart & Green, 2014).

More than 130 questions about health, risk and protective factors were included in the survey. The 2013 BC Adolescent Health Survey included questions about dating violence specifically, and has several questions about the health outcomes previously discussed that may be associated with dating violence among the adolescent population.

In addition to the eligibility criteria for the survey, this study’s eligibility criteria were those who reported being in a dating relationship. In 2013, 39% of the participants reported being in a dating relationship that year and were included in this study. Among these youth, 5.9% had been the victim of physical violence within a dating relationship. This sample represents an estimated 97,654 BC youth in relationships and 5,783 in dating violence relationships. These are the weighted counts representing the general population.

Of respondents, 0.1% \((n = 10)\) were missing data on gender, and 2.8% \((n = 840)\) were missing responses to dating victimization variables and were therefore excluded from these analyses. The final analytic unweighted sample was comprised of 11,572 youth attending school (5,613 boys and 5,948 girls). Of this, 698 youth reported being in a dating violence relationship.
3.4.1 Demographic Information

Demographic information collected and used for this study were gender, age, and immigrant status. Gender was then used as comparison factor with the research study questions.

3.4.2 Measures

3.4.2.1 Physical dating violence victimization

Although dating violence can be seen in both forced sex and emotional/mental abuse, the data only had quantifiable results from physical dating violence. The variable for analysis was physical dating violence victimization in the past year, which was asked as: “During the past 12 months, did your boyfriend or girlfriend ever hit, slap or physically hurt you on purpose?” Response options were “no”, “yes”, and “not in a relationship.”

3.4.2.2 Gender differences

The question for the BC AHS survey was “Are you?” with a response of male or female, which suggests sex to researchers; however, to youth who often use gender and sex and girl/female or boy/male interchangeably, this measure will be interpreted as gender. Due to the simplicity of the question asked, the analyses were based on what the participant identified as, not the physiological features of their sex. “Non-binary” is an umbrella descriptor term that has emerged over the past years, including people whose gender identity does not “neatly fall into the dominant binary gender categories of “man/boy” and “woman/girl.” (Frohard-Dourlent et al., 2016, p. 2). They may identify as genderqueer, agender, pangender, etc. In addition, they may or may not identify as part of trans communities (Frohard-Dourlent et al., 2016). For most youth within this study, reporting as female or male most likely aligned with their gender identity and for the small population of transgender and/or non-binary youth in the sample; it would be unclear whether they were answering about their sex or their gender from this question. This
raises awareness of the need to acknowledge “non-binary” genders in health research (Frohard-Dourlent et al., 2016), a raised concern of youth within past research that will greatly influence future research methods. As for the analysis of the existing 2013 BC AHS, without asking about specific body parts or secondary sex characteristics to confirm sex, which was not done, this measure was identified as a proxy for gender.

3.4.2.3 Age Gap

In the BC AHS, two questions were asked about age at first time having sex, and partner’s age at first sex. These were analyzed to determine whether a respondent had an illegal age gap between them and their partner. This was coded as a dichotomous variable, (illegal age gap or legally close enough in age).

3.4.2.4 Mood

Mood is interconnected with mental health and suicidality. One question in the survey assessed sadness, discouragement and hopelessness, all symptoms of depression and suicidality, when they interfere with daily functioning. For the following item, “During the past 30 days, have you felt so sad, discouraged, hopeless or had so many problems that you wondered if anything was worthwhile?” responses were coded to capture serious or extreme hopelessness “to the point I couldn’t do my work or deal with things”.

3.4.2.5 Suicidality

Suicidality was measured based on past year suicidal thoughts and attempt(s). Regarding suicidal ideations, this was measured by the following question: “In the past 12 months, did you seriously consider killing yourself (attempting suicide)?” Suicide attempt was assessed by, “In the past 12 months, how many times did you actually try to kill yourself (attempt suicide)?”
3.4.2.6 Self-harm

In addition, self-harm behavior was assessed with the question, “In the past 12 months, how many times did you cut or injure yourself on purpose, but were not trying to kill yourself?”.

3.4.2.7 Self-Reported Mental Health

Mental health conditions measurable within this dataset were based on self-report because there were not diagnostic interviews by a mental health provider. Overall reporting of mental health was analyzed using this self-rated mental health question: “In general, how would you describe your mental health?” – “Excellent, Good, Fair, Poor”

3.4.2.8 Self-Reported Depression and PTSD

Because the research literature documents a relationship between dating violence and depression and PTSD, in a question that asked students if they had various mental health conditions, I identified youth who indicated they had depression, and those who indicated they had PTSD.

3.5 Data Analyses

All analyses were performed using the Complex Samples module of IBM SPSS Version 23, which adjusted for complex cluster-stratified sampling methods and weighted data. The alpha for analyses was set at < .05. Complex Samples frequency distributions were used to describe demographics of the study population such as gender, the prevalence of mental health outcomes including mood, self-reported depression, self-reported PTSD, suicidality (ideations/attempts), and self-harm behaviour. Distribution, measures of central tendency, variability, and missing data were also analyzed for interval level data.

Variables were recoded to allow for the analyses in this study. For example, those who reported suicidal attempts were collapsed into one category despite number of attempts. Also, when assessing for self-reported PTSD, all other responses were collapsed into no self-reported
PTSD. To compare odds and ratios of dichotomous and continuous predictors, all continuous predictors were standardized to a 0 to 1 scale to put them on the same scale of measurement.

3.5.1 Analytic Strategy

First, cross tabulation analysis with chi-square tests (2-tailed tests of statistical significance) for categorical variables were conducted to examine whether boys and girls differed significantly on any of the major study variables of interest. This was done for those in dating relationships and then those with dating violence history. Second, unadjusted logistic regressions calculated the odds of the mental health outcomes variables associated with physical dating victimization, with 95% confidence intervals.

Reflecting on the mental health outcomes of inquiry, to maximize sample size, cases with missing mental health data were retained for analysis except for the analysis that used that variable in question. In such case, SPSS automatically drops it out, altering the sample size when looking at those mental health outcomes. These analyses were also conducted individually for each gender to look at the relationships separately for boys and girls.

Third, among those in dating relationships, an analysis was conducted to see if those having an age-discordant relationship history (illegal age pairing at first time having sex) were more likely to experience dating violence. Cross tabulations and unadjusted logistic regressions were performed for the group who reported dating violence, analyzing the relationship between age-discordant relationships and mental health outcomes. This was also done separately by each gender to look at the relationships separately for boys and girls.

3.6 Chapter Summary

Within this chapter, I have described the underlying theoretical perspective of Debellis’s developmental traumatization stress theory (DeBellis et al., 1999b; 2001; 2010), stemming from
Selye’s Stress Theory (1979) and Lazarus & Folkman’s psychological theory of stress (1984). Also, six developmental theories previously detailed were incorporated within my lens. The study design (correlational descriptive), data source, and sampling was described (Saewyc, Stewart & Green, 2014). Measures were detailed, and the use of chi-square, bivariate models and logistic regression analyses to answer the research questions were described. Although limitations exist in a secondary data approach, the research study displayed much strength in generalizability, including its large sample size, study of both genders and its relevance to Canadian research, policy development and nursing practice.
Chapter 4: Results

4.1 Overview

As relayed in Chapter one, the proposed research questions were:

1) Is there a higher prevalence of suicidality and associated mental health issues (self-reported suicidality, extreme sadness/hopelessness, poor/fair mental health, depression and/or PTSD and self-harm) among British Columbian youth exposed to dating violence compared to those are not exposed to dating violence in their relationships?

2) Do the mental health issues related to dating violence differ for boys compared to girls?

3) Are age-discordant sexual relationships (i.e., those outside of the close-in-age exceptions in Canadian law) associated with dating violence?

4) Do age-discordant relationships further predict mental health outcomes for boys and girls who have experienced dating violence?

4.2 Characteristics of Youth in Dating Relationships

Results displayed in this section were derived from weighted data to represent the BC adolescent population enrolled in grade 7 to 12 classrooms. There were 29,832 participants in the BC AHS and 28,992 were eligible based on completion of the required questions, including dating violence, age and gender. Among the 11,572 youth (39%) who reported being in a dating relationship within the past 12 months, 698 or 5.9% reported dating violence. Among those in dating relationships, 48.7% were boys and 51.3% were girls. Those who reported relationship violence tended to be older; the mean age of youth in relationships was 15 years (SD, 1.7), with those in a dating violence relationship were 16 years (SD, 1.5). There was no difference in immigration status among those experiencing dating violence. Among youth within relationships, 6.3% of boys and, 5.5% of girls reported dating violence, but this was not
statistically significant (see Table 1).

### Table 1 Characteristics of all Youth within Dating Relationships

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Percentage</th>
<th>Mean (SD) Min-Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent in a dating relationship in the past 12 months</td>
<td>48.7% Boys</td>
<td>51.3% Girls</td>
</tr>
<tr>
<td>Mean age of those in relationships</td>
<td></td>
<td>15 (1.7) 12-19</td>
</tr>
<tr>
<td>Mean age of those in dating violence relationships</td>
<td></td>
<td>16 (1.5) 12-19</td>
</tr>
<tr>
<td>Percent who reported dating violence</td>
<td>6.3% Boys</td>
<td>5.5% Girls</td>
</tr>
<tr>
<td>Percent Canadian born</td>
<td>84.5%</td>
<td></td>
</tr>
<tr>
<td>Percent Canadian born who reported dating violence</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Percent immigrant who reported dating violence</td>
<td>5.5%</td>
<td></td>
</tr>
</tbody>
</table>

### 4.3 Adolescent Dating Violence and Mental Health Outcomes

Dating violence was significantly associated with all mental health outcomes (see Table 2). Youth who reported dating violence were significantly more likely to report extreme sadness and hopelessness (21%) than those who did not report dating violence (9.3%). Suicidality was strongly related to dating violence. Among those reporting dating violence, over 1 in 3 reported suicidal ideations within the past 12 months (36.4%) compared to only 16.2% without dating violence. Self-reported suicide attempts within the past 12 months were also significantly more likely among those reporting dating violence (24.2%) compared to 8.8% among those not reporting dating violence. Self-harm behavior within the past 12 months was significantly more likely to be indicated by those with dating violence (44.7%) than those who did not report dating violence (20.3%). Youth who reported dating violence were significantly more likely to rate their
mental health as poor or fair (41.4%) than those who did not report dating violence (22.2%).

Among those who reported dating violence, 30.3% self-reported depression compared to 12.8% of those with no dating violence. Youth with dating violence, were also more likely to report PTSD compared to those without dating violence (5.5% vs. 1.4%).

<table>
<thead>
<tr>
<th>Mental Health Outcome</th>
<th>Reported Dating Violence</th>
<th>No Dating Violence</th>
<th>Test Statistic Adjusted $F$</th>
<th>$df$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Extreme Sadness and Hopelessness Past 30 Days</td>
<td>21.3</td>
<td>9.3</td>
<td>96.0</td>
<td>1,1297</td>
<td>* .001</td>
</tr>
<tr>
<td>% Suicidal Ideation Past 12 Months</td>
<td>36.5</td>
<td>16.1</td>
<td>164.3</td>
<td>1,1297</td>
<td>* .001</td>
</tr>
<tr>
<td>% Attempted Suicide past 12months</td>
<td>25.0</td>
<td>8.8</td>
<td>174.3</td>
<td>1,1297</td>
<td>* .001</td>
</tr>
<tr>
<td>% Self-Harm Past 12 Months</td>
<td>43.8</td>
<td>20.0</td>
<td>174.5</td>
<td>1,1297</td>
<td>* .001</td>
</tr>
<tr>
<td>% Mental Health Poor/Fair</td>
<td>41.4</td>
<td>22.2</td>
<td>119.1</td>
<td>1,1297</td>
<td>* .001</td>
</tr>
<tr>
<td>% Self-Reported Depression</td>
<td>30.3</td>
<td>12.8</td>
<td>77.5</td>
<td>1,1297</td>
<td>* .001</td>
</tr>
<tr>
<td>% Self-Reported PTSD</td>
<td>5.7</td>
<td>1.3</td>
<td>140.7</td>
<td>1,1297</td>
<td>* .001</td>
</tr>
</tbody>
</table>

*The adjusted $F$ is a statistical test calculated using IBM SPSS Complex Samples and is a variant of the Rao-Scott Chi-squared statistic. * Significance is set at $p<.05$.

4.4 Gender Differences in Adolescent Dating Violence and Mental Health Outcomes

Mental health outcomes were more prevalent among those reporting dating violence versus those in non-dating violence relationships for both boys and girls (see Tables 3 and 4). There were significant differences in self-rated mental health, mood, self-reported depression, PTSD, suicidality and self-harm behavior among those who reported dating violence compared
to those who did not, and this held for both boys and girls. Despite this similarity for both boys and girls, there were gender differences in the rates of these outcomes linked to dating violence (see Table 5). In each mental health outcome, a higher percentage of girls than boys who reported dating violence reported mental health problems.

### Table 3 Differences in Boys’ Mental Health by Dating Violence

<table>
<thead>
<tr>
<th>Mental Health Outcome</th>
<th>Reported Dating Violence</th>
<th>No Dating Violence</th>
<th>Test Statistic *Adjusted F</th>
<th>df</th>
<th>p</th>
<th>OR(95%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Extreme Sadness and Hopelessness Past 30 Days</td>
<td>12.5</td>
<td>4.5</td>
<td>37.8</td>
<td>1, 1254</td>
<td>.001</td>
<td>3.0 (2.1, 4.4)</td>
</tr>
<tr>
<td>% Suicidal Ideation Past 12 Months</td>
<td>22.2</td>
<td>9.7</td>
<td>49.7</td>
<td>1, 1254</td>
<td>.001</td>
<td>2.7 (2.0, 3.5)</td>
</tr>
<tr>
<td>% Attempted Suicide Past 12 Months</td>
<td>14.3</td>
<td>4.4</td>
<td>65.9</td>
<td>1, 1254</td>
<td>.001</td>
<td>3.6 (2.6, 5)</td>
</tr>
<tr>
<td>% Self-Harm Past 12 Months</td>
<td>27.3</td>
<td>9.7</td>
<td>88.9</td>
<td>1, 1254</td>
<td>.001</td>
<td>3.5 (2.7, 4.6)</td>
</tr>
<tr>
<td>% Mental Health Poor/Fair</td>
<td>27.5</td>
<td>13.6</td>
<td>45.8</td>
<td>1, 1254</td>
<td>.001</td>
<td>2.41 (1.85, 3.1)</td>
</tr>
<tr>
<td>% Self-Reported Depression</td>
<td>15.6</td>
<td>6.7</td>
<td>34.8</td>
<td>1, 1254</td>
<td>.001</td>
<td>2.6 (1.9, 3.6)</td>
</tr>
<tr>
<td>% Self-Reported PTSD</td>
<td>3.5</td>
<td>0.7</td>
<td>28.7</td>
<td>1, 1254</td>
<td>.001</td>
<td>5.1 (2.6, 10.3)</td>
</tr>
</tbody>
</table>

*The adjusted $F$ is a statistical test calculated using IBM SPSS Complex Samples and is a variant of the Rao-Scott Chi-squared statistic. * Significance is set at $p<.05.$
Table 4 Differences in Girls’ Mental Health By Dating Violence

<table>
<thead>
<tr>
<th>Mental Health Outcome</th>
<th>Reported Dating Violence</th>
<th>No Dating Violence</th>
<th>Test Statistic</th>
<th>df</th>
<th>p</th>
<th>OR(95%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Extreme Sadness and Hopelessness Past 30 Days</td>
<td>30.9</td>
<td>13.8</td>
<td>64.6</td>
<td>1, 1244</td>
<td>* .001</td>
<td>2.8 (2.2, 3.6)</td>
</tr>
<tr>
<td>% Suicidal Ideation Past 12 Months</td>
<td>52.2</td>
<td>22.2</td>
<td>130.3</td>
<td>1, 1244</td>
<td>* .001</td>
<td>3.8 (2.3, 4.9)</td>
</tr>
<tr>
<td>% Attempted Suicide Past 12 Months</td>
<td>36.5</td>
<td>12.8</td>
<td>111.7</td>
<td>1, 1244</td>
<td>* .001</td>
<td>3.9 (3.0, 5.1)</td>
</tr>
<tr>
<td>% Self-Harm Past 12 Months</td>
<td>61.6</td>
<td>29.6</td>
<td>115.7</td>
<td>1, 1244</td>
<td>* .001</td>
<td>3.8 (2.9, 4.9)</td>
</tr>
<tr>
<td>% Mental Health Poor/Fair</td>
<td>56.2</td>
<td>30.3</td>
<td>81.6</td>
<td>1, 1244</td>
<td>* .001</td>
<td>2.9 (2.3, 3.8)</td>
</tr>
<tr>
<td>% Self-Reported Depression</td>
<td>46.3</td>
<td>18.3</td>
<td>127.2</td>
<td>1, 1244</td>
<td>* .001</td>
<td>3.8 (3.0, 4.9)</td>
</tr>
<tr>
<td>% Self-Reported PTSD</td>
<td>8.1</td>
<td>1.9</td>
<td>45.1</td>
<td>1, 1244</td>
<td>* .001</td>
<td>4.5 (2.8, 7.3)</td>
</tr>
</tbody>
</table>

*The adjusted F is a statistical test calculated using IBM SPSS Complex Samples and is a variant of the Rao-Scott Chi-squared statistic. * Significance is set at p<.05.
Table 5 Gender Difference of Mental Health Outcomes Between Boys and Girls Reporting Dating Violence

<table>
<thead>
<tr>
<th>Mental Health Outcome</th>
<th>Boys Reported Dating Violence</th>
<th>Girls Reported Dating Violence</th>
<th>Test Statistic</th>
<th>df</th>
<th>p</th>
<th>OR(95%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Extreme Sadness and Hopelessness Past 30 Days</td>
<td>12.5</td>
<td>30.9</td>
<td>30.4</td>
<td>1,400</td>
<td>* .001</td>
<td>3.1 (2.1, 4.8)</td>
</tr>
<tr>
<td>% Suicidal Ideation Past 12 Months</td>
<td>22.2</td>
<td>52.2</td>
<td>56.2</td>
<td>1,400</td>
<td>* .001</td>
<td>3.8 (2.7, 5.5)</td>
</tr>
<tr>
<td>% Attempted Suicide Past 12 Months</td>
<td>14.3</td>
<td>36.5</td>
<td>40.1</td>
<td>1,400</td>
<td>* .001</td>
<td>3.4 (2.3, 5.1)</td>
</tr>
<tr>
<td>% Self-Harm Past 12 Months</td>
<td>27.3</td>
<td>61.6</td>
<td>68.3</td>
<td>1,400</td>
<td>* .001</td>
<td>4.3 (3.0, 6.1)</td>
</tr>
<tr>
<td>% Describes Mental Health Poor/Fair</td>
<td>27.5</td>
<td>56.2</td>
<td>49.9</td>
<td>1,400</td>
<td>* .001</td>
<td>3.4 (2.4, 4.76)</td>
</tr>
<tr>
<td>% Self-Reported Depression</td>
<td>15.6</td>
<td>46.3</td>
<td>674</td>
<td>1,400</td>
<td>* .001</td>
<td>4.7 (3.2, 6.8)</td>
</tr>
<tr>
<td>% Self-Reported PTSD</td>
<td>3.5</td>
<td>8.1</td>
<td>5.6</td>
<td>1,400</td>
<td>* .001</td>
<td>2.4 (1.1, 5.1)</td>
</tr>
</tbody>
</table>

*The adjusted $F$ is a statistical test calculated using IBM SPSS Complex Samples and is a variant of the Rao-Scott Chi-squared statistic. * Significance is set at $p<.05$.

4.5 Age-Discordant Relationships and Adolescent Dating Violence

Illegal age differences at first sex were significantly linked to dating violence (see Table 6). Within those in dating relationship, 11,222 had ever had sex and answered at age first sex, so were eligible to determine a history of illegal age pairing. Among those in dating relationships, 256 or 2% reported illegal age pairing at first time having sex. Among the sub-group of those
with dating violence, 675 had ever had sex and gave answers to determine a history of illegal age pairing at first time having sex. Seventy-four reported both dating violence and an illegal age pairing. Youth who had illegal older partners at first sex had 7.7 times the odds of reporting dating violence in the past year.

**Table 6 Illegal Age Difference at First Time Having Sex and Dating Violence**

<table>
<thead>
<tr>
<th>Legality of Age Pairing</th>
<th>% Reported Dating Violence in Past Year</th>
<th>% No Dating Violence in Past Year</th>
<th>% Total</th>
<th>Test Statistic</th>
<th>df</th>
<th>p</th>
<th>OR(95%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illegal age pairing at first sex</td>
<td>30.5</td>
<td>69.5</td>
<td>2</td>
<td>246.5</td>
<td>1, 1297</td>
<td>*001</td>
<td>7.7 (5.7, 10.4)</td>
</tr>
<tr>
<td>No illegal age pairing at first sex</td>
<td>5.4</td>
<td>94.6</td>
<td>98</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The adjusted $F$ is a statistical test calculated using IBM SPSS Complex Samples and is a variant of the Rao-Scott Chi-squared statistic. * Significance is set at $p<.05$.

**4.6 Age-Discordant Relationships: Adolescent Dating Violence and Mental Health**

**Outcomes**

Among all youth in dating violence relationships, mental health outcomes were analyzed among those in illegal age-discordant relationships compared to those in similar-age relationships (*see Table 7*). Poor/fair mental health was significantly more likely among those who had age-discordant relationships. Similarly, self-reported PTSD was more common among those with age-discordant relationships. Suicidality was associated with age-discordant relationships as well; suicidal ideation in the past 12 months was significantly more likely among those with illegal age pairings. Likewise, suicidal attempts in the past 12 months were significantly more likely among those with age-discordant relationships. There was no significant difference in self-reported depression or self-harm between those reporting both
dating violence and age-discordant first sex and those with dating violence but similar age first sex. When boys and girls were analyzed separately, some differences were evident in the mental health outcomes more likely to be significant among those reporting illegal sex pairings. (see Tables 8 and 9). Among those boys reporting dating violence in past 12 months, those with a history of age-discordant relationships at first sex were more likely to report poor/fair mental health than boys who did not report illegal age pairings at first sex. Among girls reporting dating violence in past 12 months, those with a history of age-discordant relationships at first sex were more likely to self-report PTSD than those girls who did not report age-discordant relationships at first sex.
Table 7 The Relationship between Illegal Age Pairing and Mental Health Outcomes among those who have Experienced Past Year Dating Violence

<table>
<thead>
<tr>
<th>Mental Health Outcome</th>
<th>Illegal age pairing at first time having sex</th>
<th>No illegal age pairing at first time having sex</th>
<th>Test Statistic</th>
<th>df</th>
<th>p</th>
<th>OR (95%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Extreme Sadness and Hopelessness</td>
<td>33.3</td>
<td>19.9</td>
<td>6.5</td>
<td>1,400</td>
<td>.011</td>
<td>2.0 (1.2, 3.5)</td>
</tr>
<tr>
<td>% Suicidal Ideation past 12 months</td>
<td>48.6</td>
<td>34.8</td>
<td>5.1</td>
<td>1,400</td>
<td>.025</td>
<td>1.8 (1.1, 2.9)</td>
</tr>
<tr>
<td>% Attempted Suicide past 12 months</td>
<td>36.4</td>
<td>23.3</td>
<td>5.2</td>
<td>1,400</td>
<td>.024</td>
<td>1.9 (1.1, 3.3)</td>
</tr>
<tr>
<td>% Self-Harm past 12 months</td>
<td>53.2</td>
<td>42.6</td>
<td>2.8</td>
<td>1,400</td>
<td>NS</td>
<td>1.5 (.9, 2.6)</td>
</tr>
<tr>
<td>% Describes mental health Poor/Fair</td>
<td>60.4</td>
<td>39.1</td>
<td>10.3</td>
<td>1,400</td>
<td>.001</td>
<td>2.4 (1.4, 4.1)</td>
</tr>
<tr>
<td>% Self-Reported Depression</td>
<td>39.1</td>
<td>29.1</td>
<td>2.8</td>
<td>1,400</td>
<td>NS</td>
<td>1.6 (.9, 2.7)</td>
</tr>
<tr>
<td>% Self-Reported PTSD</td>
<td>16.8</td>
<td>4.6</td>
<td>14.8</td>
<td>1,400</td>
<td>.000</td>
<td>4.2 (1.9, 9.1)</td>
</tr>
</tbody>
</table>

*The adjusted F is a statistical test calculated using IBM SPSS Complex Samples and is a variant of the Rao-Scott Chi-squared statistic. * Significance is set at p<.05.
Table 8 Mental Health Outcomes related to Illegal Sex Pairing among Boys Who Experienced Dating Violence

<table>
<thead>
<tr>
<th>Mental Health Outcome</th>
<th>Illegal age pairing at first sex</th>
<th>No illegal age pairing at first sex</th>
<th>Test Statistic</th>
<th>df</th>
<th>p</th>
<th>OR (95%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Extreme Sadness and Hopelessness</td>
<td>20.7</td>
<td>11.8</td>
<td>1.361</td>
<td>1, 215</td>
<td>NS</td>
<td>2.0 (0.6, 6.2)</td>
</tr>
<tr>
<td>% Suicidal Ideation Past 12 Months</td>
<td>25.8</td>
<td>21.5</td>
<td>.266</td>
<td>1, 215</td>
<td>NS</td>
<td>1.3 (0.5, 3.2)</td>
</tr>
<tr>
<td>% Attempted Suicide Past 12 Months</td>
<td>21.0</td>
<td>13.2</td>
<td>1.258</td>
<td>1, 215</td>
<td>NS</td>
<td>1.8 (0.8, 4.8)</td>
</tr>
<tr>
<td>% Self-Harm Past 12 Months</td>
<td>35.1</td>
<td>26.9</td>
<td>.808</td>
<td>1, 215</td>
<td>NS</td>
<td>1.5 (0.6, 3.4)</td>
</tr>
<tr>
<td>% * Mental Health Poor/Fair</td>
<td>59.5</td>
<td>24.5</td>
<td>12.981</td>
<td>1, 215</td>
<td>* .001</td>
<td>4.5 (1.9, 11.0)</td>
</tr>
<tr>
<td>% Self-Reported Depression</td>
<td>12.0</td>
<td>16.0</td>
<td>.350</td>
<td>1, 215</td>
<td>NS</td>
<td>0.7 (0.2, 2.2)</td>
</tr>
<tr>
<td>% Self-Reported PTSD</td>
<td>6.0</td>
<td>3.4</td>
<td>.495</td>
<td>1, 215</td>
<td>NS</td>
<td>1.8 (0.4, 9.2)</td>
</tr>
</tbody>
</table>

*The adjusted F is a statistical test calculated using IBM SPSS Complex Samples and is a variant of the Rao-Scott Chi-squared statistic. * Significance is set at \( p < .05 \).
Table 9 Mental Health Outcomes related to Illegal Sex Pairing among Girls Who Experienced Dating Violence

<table>
<thead>
<tr>
<th>Girls Positive Dating Violence</th>
<th>Illegal age pairing at first sex</th>
<th>No illegal age pairing at first sex</th>
<th>Test Statistic <em>Adjusted F</em></th>
<th>df</th>
<th>p</th>
<th>OR(95%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Extreme Sadness and Hopelessness</td>
<td>41.6</td>
<td>29.2</td>
<td>3.236</td>
<td>1, 182</td>
<td>NS</td>
<td>1.7 (.9, 3.2)</td>
</tr>
<tr>
<td>% Suicidal Ideation Past 12 Months</td>
<td>63.3</td>
<td>50.3</td>
<td>3.132</td>
<td>1, 182</td>
<td>NS</td>
<td>1.7 (0.9, 3.1)</td>
</tr>
<tr>
<td>% Attempted Suicide Past 12 Months</td>
<td>45.5</td>
<td>35.1</td>
<td>1.693</td>
<td>1, 182</td>
<td>NS</td>
<td>1.5 (0.8, 3.0)</td>
</tr>
<tr>
<td>% Self-Harm Past 12 Months</td>
<td>64.1</td>
<td>60.9</td>
<td>.161</td>
<td>1, 182</td>
<td>NS</td>
<td>1.1 (5.9, 2.2)</td>
</tr>
<tr>
<td>% Describes Mental Health Poor/Fair</td>
<td>61.0</td>
<td>55.7</td>
<td>.475</td>
<td>1, 182</td>
<td>NS</td>
<td>1.2 (0.7, 2.3)</td>
</tr>
<tr>
<td>% Self-Reported Depression</td>
<td>56.7</td>
<td>44.3</td>
<td>2.555</td>
<td>1, 182</td>
<td>NS</td>
<td>1.7 (.9, 3.1)</td>
</tr>
<tr>
<td>% *Self-Reported PTSD</td>
<td>23.8</td>
<td>6.0</td>
<td>13.846</td>
<td>1,182</td>
<td>*.001</td>
<td>4.9 (2.0, 12.3)</td>
</tr>
</tbody>
</table>

*The adjusted F is a statistical test calculated using IBM SPSS Complex Samples and is a variant of the Rao-Scott Chi-squared statistic. * Significance is set at p<.05.

4.7 Conclusion

Thirty-nine percent of young people are in dating relationships, 6% report dating violence, and 2% reported their first sexual partner was illegally older. Both boys and girls had similar incidence of reported dating violence in the past year. Across both boys and girls, all mental health outcomes studied were more likely among those reporting dating violence verses
their peers in healthy relationships. However, a higher percentage of girls than boys reported mental health outcomes associated with dating violence. Among those in dating relationships, 2% reported illegal age pairing at first time having sex. Among those reporting dating violence, 74 reported both dating violence and an illegal age pairing (28 boys; 46 girls). Girls reporting dating violence were more likely than boys to have an illegal age gap history of first time having sex. Youth who had illegal older partners at first sex \((n=256)\), at a 95% CI, had 7.7 times the odds of reporting dating violence in the past year.
Chapter 5: Discussion

5.1 Summary of Findings

When looking at the incidence of dating violence and the association of age-discordant relationships, those youth reporting dating violence were significantly more likely to report illegal age pairings at first onset of sex in comparison to those youth not reporting dating violence. Poor mental health outcomes were significantly more likely in those youth reporting dating violence and age-discordant relationships. Those poor mental health outcomes included: suicidality (ideations and attempts), poor/fair mood, extreme feelings of sadness and hopelessness and self-reported PTSD. There was no clear association for self-reported depression or self-harm among participants with age-discordant relationships. Finally, among boys and girls analyzed separately, self-reported PTSD was significantly related to dating violence and age-discordant first sex for girls, as was poor/fair mental health for boys.

5.1.1 Gender and Dating Violence

These findings contradict the societal view that dating violence occurs more often among girls and women than boys and men. Previous research has been inconclusive in documenting differences in dating violence between boys and girls. Such things as the “iceberg effect,” (violence which has been reported to police, but many more cases were not reported, Burczycka, 2016.), variation in adolescent romantic relationships, (Exner-Cortens, 2014) and interpretation of what dating violence is may explain the varying rates of dating violence reported among adolescents historically (Glass et al., 2003). However, in British Columbia, boys and girls were equally likely to report dating violence. These findings support other studies that found similar rates of dating violence among boys and girls (Policastro & Daigle, 2016; Orpinas et al., 2013). Considering the developmental tenets discussed by Exners-Cortens, (2014), developmental
factors facing adolescents may explain the proportionate representation of dating violence in both girls and boys: they are facing the same obstacles within romantic relationships regardless of their gender.

### 5.1.2 Gender and Mental Health Does Matter

Girls who were in dating relationships had much higher odds of having adverse mental health compared to boys. Girls were found to have higher odds of reporting mental health outcomes than boys in all areas studied. This supports other research documenting increased diagnosis and reporting of mental health disparities of depression, anxiety and PTSD among women and girls compared to men and boys (WHO, 2017). As discussed by Oliffe, (2009; 2016), boys and men may exhibit mental health symptoms in other ways, such as anger. McGuinness, Dyer and Wade (2012) noted depression was more common in girls during adolescence and the gender disparity becomes twice the rate during the teen years. It is believed that vulnerability-stress models and a tendency for rumination among girls explain their development and continuation of depressive symptoms (McGuinness, Dyer & Wade, 2012). These factors may explain the higher rates of poor mental health outcomes found among girls in this study. Reflecting on the theory directing my research, DeBellis’s developmental traumatology theory of stress supports research findings. DeBellis detailed that the biological stress system reactions are based on several principles including the nature of the stressor and the chronicity (1999b; 2001; 2010). In Ybarra and colleagues’ study (2016), girls reported more severe forms of abuse than boys. It is possible that the higher percent of adverse mental health outcomes among girls exposed to dating violence in this study may also be attributed to having dating violence relationships with higher levels of violence at increased frequency or chronicity in comparison to boys (DeBellis et al., 1999b; 2001; 2010).
For both boys and girls, mental health outcomes were higher among those with dating violence compared with their peers reporting no dating violence. Age-discordant first sexual relationships were associated with higher likelihood of dating violence. Poor mental health outcomes emerged for those reporting both dating violence and illegal age pairing at first time having sex. Differences were present between boys and girls. Within these participants, PTSD, which tends to be more commonly diagnosed among women (WHO, 2017), was also more common among girls. PTSD is the fifth assumption in the developmental traumatology theory of stress, explaining the association reported by girls (DeBellis et al., 1999b; 2001; 2010). Again, considering the evolution of PTSD within developmental trauma, a higher incidence of PTSD among girls might be attributed to more severe and frequent occurrences of dating violence, but this cannot be quantified in this study. For boys, poor/fair mental health was the only mental health issue associated with dating violence and illegal age pairing at first sex.

5.1.3 Dating Violence: What’s Mental Health got to do with it?

The higher rates of poor mental health outcomes among those who reported dating violence supports the longitudinal study literature discussed previously. Most importantly, it exhibits the basis of the developmental traumatology theory underpinning my study. Similar to the theory discussed by DeBellis et al., (1999b; 2001; 2002; 2010), violence exposure within developmental years shows a direct correlation with mental health, leading to PTSD and other comorbidities such as chronic depressive disorders, suicidal ideation/Attempts, personality disorders and conduct disorders. Because this was a cross-sectional study, it is not feasible to determine these mental health outcomes as a direct result of dating violence; however, it is apparent there is a strong relationship supporting the theory. These findings have implications for both future research and clinical directions. Understanding that there is a relationship between
young dating violence and mental health problems can inform care providers to be aware of this
link when assessing clients presenting with either dating violence or one of the mental health
outcomes. It promotes screening for dating violence, suicidality and possible adverse mental
health outcomes. As exhibited in adolescent development theories discussed by Exner-Cortens
(2014), the lack of maturity and stability of adolescent romantic relationships must be recognized
as a significant difference compared to adult dating violence. Youth may lack self-esteem and be
seeking to fulfill identity and unmet attachment needs within these violent relationships (Furman
& Wehner, 1994; Exner-Cortens, 2014). Those reporting dating violence may already have some
predisposition to unhealthy relationships due to insecure attachments as an infant or child
(Furman & Wehner, 1994; McClellan, & Reed Killeen, 2000; Exner-Cortens, 2014; Rakovec-Felser, 2014). Longitudinal research may be beneficial to help understand these relationships
better. For future cross-sectional studies, survey questions could be adapted to better portray the
temporal ordering of dating violence and associated mental health outcomes.

Suicidality was strongly linked to violence exposure in the last 2008 BC Adolescent
Health Survey (Saewyc & Chen, 2013) and this finding was mirrored within this study, linked to
dating violence. Illegal age pairing at first time having sex was additionally correlated with
suicidality among those experiencing dating violence in this study; however, once analyses were
conducted separately by gender, illegal age pairing at first sex did not further predict suicidality
for girls and for boys. The significant relationship between both suicidal ideations and attempts
and dating violence is most important, considering suicide is the second leading cause of death
among adolescents (WHO, 2014). Despite mixed results in other research, suicidality was
strongly associated with dating violence among BC youth. In addition, since suicidal ideation,
suicidal attempt, self-harm and dating violence questions were all asked, “within the last 12
months,” it is possible that much of the suicidality and self-harm reported was an outcome of the dating violence relationship.

### 5.1.4 Dating Violence: Illegal Age-Discordant Relationships

As exemplified in the literature review, illegal age pairings were associated with reported dating violence (Manlove et al., 2005; 2006; Marín, et al., 2000; 2006; Oudekerk, Guarnera & Reppucci, 2014, 2014; Volpe et al., 2012; 2013). This study found the same result, although it was not feasible to identify that the dating violence occurred within an illegal age relationship. Literature shows increased dating violence in illegal age pairings and within subsequent relationships. This link found within the 2013 BC AHS is a key finding for provincial data, because it helps direct both health care and justice proceedings when faced with such illegal pairings. Among those participants reporting dating violence, after performing cross tabulations between illegal age pairing and all the adverse mental health disparities studied, those youth were significantly more likely to report extreme sadness/hopelessness, self-reported PTSD, poor mental health, and suicidal ideations and attempts. These findings support previous literature (Manlove, 2005; 2006; Loftus, Kelly & Mustillo, 2011), in which mental health disparities were strongly associated with illegal age pairings.

### 5.2 Strengths and Limitations of Study Design

There are always limitations that may affect a study’s internal validity and generalizability of the findings. The nature of cross-sectional studies makes it difficult or impossible to establish the temporal ordering of data and outcomes (i.e., mental health outcomes contributed to or resulted from adolescent dating violence). To address this problem, variables were chosen with robust research support in longitudinal studies. For increased validity, findings from the current study should be replicated using longitudinal data. A major strength of the
design is that this was a large-scale population-based survey of youth in schools across British Columbia, which is representative of youth in Western Canada, incorporating both boys and girls, with a large sample. All these key factors increase validity and generalizability of the study.

The prevalence of adolescent dating violence may be underestimated, because the question of physical dating violence does not necessarily capture dating violence that occurred in more casual relationships (e.g., “hanging out”, “friends with benefits” or “hook-ups”). With the dating violence question used, it was also impossible to accurately capture the occurrence of emotional/psychological or sexual violence within dating violence. The BC AHS was school-based and only includes students from public schools in B.C. Thus, youth in private schools, home school, custody or street-involved/homeless youth who were not in school were not included. These population subsets may have varying rates of physical dating violence, and differing health outcomes associated with physical dating violence.

Lastly, as a secondary analysis of the BC AHS data, the analysis was restricted to the questions present on the survey. Future surveys may ask different questions and include other methods of dating violence such as emotional and sexual.

5.3 Implications for Practice

Several implications for nursing practice can be gathered from the results of this study. First, it is important that acute care pediatric and mental health nurses, adolescent clinicians, school counselors, social workers and public health practitioners working with youth are aware of the strong relationship between dating violence and the adverse mental health outcomes within this study. Acute presentations of suicidality, self-harm behaviours, depressive symptomology, depression and PTSD need to be considered with a possible link to current or
past dating relationships. As with adult care, screening should be done regularly for dating violence within adolescent romantic relationships, which may be exacerbating the magnitude of the mental health illness/crisis. Secondly, awareness that adolescent girls and boys have similar rates of reporting dating violence is noteworthy for a society that most often associates dating violence with domestic violence and domestic violence with female victims. Drawing on the link between illegal pairing at first sex and higher rates of both dating violence and some key acute mental health issues, health care providers need to be aware of PTSD, poor mental health and suicidality (ideations and attempts) as key risks within this group. Investigating the age gap between romantic partners among youth exhibiting mental health issues may help identify illegal age pairings contributing to poor mental health among these youths. This in turn can guide therapy, social supports, psychoeducation and legal involvement if required.

5.4 **Direction for Future Research**

To better understand the complex relationships within adolescent dating violence, suicidality/mental health outcomes and illegal age pairings, more research is required. Cross-sectional surveys provide large scale useful information on possible relationships between dating violence and mental health outcomes in youths’ lives; however, longitudinal designs provide a deeper understanding of the actual temporal process that leads to negative mental health outcomes researched in this study. In addition, longitudinal studies are also helpful for examining how both mental health outcomes associated with dating violence and dating violence exposure change over time.

An ongoing challenge for nursing researchers is creating a foundational understanding of the distinct clinical presentation of dating violence within adolescence versus adulthood (Potera, C., 2014). This will help guide excellence within acute adolescent mental health care practice.
through nurses’ ability to identify, respond and prevent dating violence (Potera, C., 2014). To establish this work, qualitative research methods are particularly helpful for exploring youth and health care providers’ beliefs around these concepts and how they can be most accurately measured at the population level. In addition, designs such as ethnography and grounded theory may provide valuable approaches to identify how certain groups perceive dating violence and their understanding of the relationship with poor mental health outcomes. For example, youth reporting dating violence or emergency/adolescent psychiatry nurses may be a sub-population studied within ethnography to explore their perception of dating violence.

Finally, future research in this area must also focus on ways to assess for these adverse mental health relationships, developing nursing interventions to screen and assess for dating violence based on the current body of evidence. Nursing researchers may use quasi-experimental or cohort studies to test the effect of assessment/screening tools tailored to investigate dating violence among those youth presenting in mental health distress. Clinical research findings help shift the knowledge base from simply describing health issues to testing possible successful interventions. This enhances the interpretation of knowledge from research evidence towards evidence-based clinical nursing practice.

In June 2017, the Government of Canada invested $4.8 billion dollars into research networks that will share knowledge and best practice internationally on mental health services and health systems. This included three new networks under the International Knowledge Translation Platforms (IKTP) initiative of the Networks of Centres of Excellence (NCE), supporting international collaborations for youth mental health and addiction services, prisoner mental health services and best practices in health care supply chains (Government of Canada, Canadian Institute of Health Research (CIHR), June 6, 2017). As quoted by Joël Lightbound,
Parliamentary Secretary to the Minister of Health, Honorable Jane Philpott, “With its investment in these three new networks, the Government is addressing some of the most urgent priorities in mental health and addiction service delivery, by bridging knowledge gaps and sharing research evidence with patients, health care providers and the decision-makers who need this vital information.”

It is apparent these research findings are vital in both informing and improving current practice through educating both the patients/families involved and the key health care providers connected with them. Acknowledging the connection between dating violence, illegal age pairings and key adverse mental health outcomes among this population will help bridge a gap within adolescent mental health care delivery systems and suicidality, one of the most urgent mental health care priorities among youth.
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