

LOOKING WITHIN: AN ANALYSIS OF INTIMATE PARTNER VIOLENCE
VICTIMIZATION AMONG LGBTQ+ YOUTH

by

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A thesis submitted to the Graduate Council of
Texas State University in partial fulfillment
of the requirements for the degree of
Master of Science
with a Major in Criminal Justice
May 2022

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ACKNOWLEDGEMENTS

I would personally like to thank Dr. Matthew Logan for his dedication and guidance during my time as a graduate student. I am fortunate to have Matt as my mentor and am grateful to have had the opportunity to work with him. I would also like to thank Dr. Ashley Arnio and Dr. Christine Sellers for their support, advice, and feedback throughout the process of writing my thesis. Finally, I would like to thank my family for their continued support throughout this process. Bekah, without your patience and encouragement, I would have never been able to chase my dream. Lucius, thank you for reminding me to never take myself too seriously and to always make time for the ones I love.

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LIST OF ABBREVIATIONS

Abbreviation	Description
IPV	Intimate partner violence
LGBTQ+	Lesbian, gay, bisexual, transgender, queer, and others
PTSD	Post-traumatic stress disorder
CDC	Center for Disease Control and Prevention
YRBS	Youth Risk Behavior Survey
CTS	Conflict Tactic Scales
CTS2	Revised Conflict Tactic Scales
NISVS	National Intimate Partner and Sexual Violence Survey
IRB	Institutional Review Board
RIC	Research Integrity and Compliance
STD	Sexually transmitted disease
HIV	Human immunodeficiency virus
VIF	Variance Inflation Factor

ABSTRACT

Sexual minority youth are at increased risk of IPV victimization compared to their heterosexual peers. However, the LGBTQ+ population is not a homogenous group and risk of IPV victimization varies by LGBTQ+ subgroup (e.g., gay/lesbian, bisexual, and unsure). Using two waves of data (2017, 2019) from the National Youth Risk Behavior Survey (YRBS), this study analyzes differences in physical and sexual IPV victimization between heterosexual and sexual minority youth, within group differences among LGBTQ+ adolescents, and if the relationship between IPV victimization and sexual identity is mediated after controlling for theoretically relevant variables. Results indicate that sexual minority youth are at elevated risk of IPV victimization compared to their heterosexual peers. Within analyses show that bisexual youth are more likely than gay/lesbian youth to be victims of sexual IPV. The association between physical and sexual IPV victimization and sexual identity is partially attenuated by demographic variables, risky behaviors, and negative life experiences. Findings indicate that intervention and prevention programming should be tailored to identify, and treat, the risks and needs of unique, at-risk populations.

Keywords: intimate partner violence, teen dating violence, sexual minority youth, LGBTQ+

I. INTRODUCTION

Intimate partner violence (IPV) among adolescents is a serious public health concern that has been estimated to result in adverse childhood experiences for millions of teens across the United States each year. In 2019, a national survey of 13,677 high school students found that 9.3% of female and 7.0% of male students were victims of physical IPV and 12.6% of female and 3.8% of male students were victims of sexual IPV (Basile et al., 2020). The prevalence of IPV among high school students is concerning, especially considering the litany of empirically established negative health outcomes associated with it. The empirical research has shown that victims of IPV are at increased risk of experiencing depression, anxiety, post-traumatic stress disorder (PTSD), substance abuse, low academic achievement, and other antisocial behaviors (Adams et al., 2020; Caldwell et al., 2012; Decker et al., 2018; Edwards, 2015; Gehring & Vaske, 2015; Exner-Cortens et al., 2012; Whitton et al., 2016; Jennings et al., 2017).

Much of the research on adolescent IPV focuses on heterosexual samples and consistently finds that both girls and boys report similar rates of physical IPV victimization, whereas girls report higher rates of sexual IPV victimization (Basile et al., 2020; Edwards, 2015; Offenhauer & Buchalter, 2011; Wincentak et al., 2017; Vagi et al., 2015). Several studies comparing heterosexual and LGBTQ+ youth also report differences in IPV victimization between groups defined by sexual identity instead of gender (Olsen et al., 2017; Dank et al., 2013; Whitton et al., 2016; Adams et al., 2020; Edwards et al., 2015; Martin-Storey, 2014; Reuter et al., 2015; Levine & Button, 2021). Although this work sheds light on higher prevalence of victimization among the LGBTQ+ population, it is important to realize that this is not a monolithic group and

instead comprises multiple sexual identity subgroups with unique characteristics. This variation has been relatively neglected within IPV research, as only a few studies have assessed victimization risks *within* the LGBTQ+ population. Indeed, while studies based on within-group analyses largely focus on prevalence rates and report varying rates of victimization that depend on an individual's sexual identity (Edwards 2015; Martin-Storey, 2014; Martin-Storey et al., 2021), a dearth of knowledge still exists on why sexual minority youth experience IPV victimization more than their heterosexual peers.

To better understand the victimization differences within the LGBTQ+ community, the proposed study will use the Centers for Disease Control and Prevention's (CDC) Youth Risk Behavior Survey (YRBS) to analyze the relationship between sexual identity and IPV victimization, while controlling for sociodemographic and theoretically relevant behaviors among adolescents. Using bivariate and multivariate modeling, this study first looks at examining if LGBTQ+ youth in this sample are more likely to experience IPV victimization than their heterosexual peers. Second, LGBTQ+ youth are not a homogenous group, and it is important to understand victimization risk among specific subpopulations (e.g., gay/lesbian, bisexual, not sure). This study will use within-group analyses to examine variation in IPV victimization among these subgroups. Finally, this study extends previous research by determining if the relationship between IPV victimization and LGBTQ+ youth is mediated by bullying victimization, engagement in antisocial behaviors, sexual risk-taking behavior, substance use, binge drinking, negative affect, and suicidal ideation. Examining the odds of IPV victimization among LGBTQ+ youth will add to the limited knowledge regarding the group differences

within such a diverse population and help inform future programming efforts for at-risk LGBTQ+ youth.

II. LITERATURE REVIEW

Social science research on intimate partner violence, initially termed “wife beating” or “battering,” did not emerge until the late 1970s. Coupled by two driving forces—the United States Surgeon General’s 1979 report identifying IPV as a preventable public health concern and social movements during that time—research regarding IPV proliferated over the next decade (Hamberger et al., 2020; Pache, 2020). Initial research on IPV emphasized understanding the characteristics and magnitude of the problem (Niolon et al., 2020). Once prevalence rates, at-risk groups, and other characteristics were identified, scholars began the attempt to explain IPV. Historically, research on IPV can be largely categorized into two perspectives: violence-against-women and family violence (Dobash & Dobash, 2004). The violence-against-women perspective sees IPV as gender asymmetrical and asserts that IPV perpetration is male-dominated with women as victims (Dowd & Lambo, 2020). The family violence perspective claims gender symmetry, arguing males and females equally engage in IPV, with some scholars stating that IPV is somewhat more female-perpetrated (Dowd & Lambo, 2020).

Violence-Against-Women Perspective

The initial, dominant theoretical model to explain IPV was the violence-against-women or feminist perspective. Led by grassroot movements, IPV terms “wife beating” and “battered women,” and initial belief that women were more likely to be victims than men, feminist explanations focused on gender inequalities as the root cause of IPV (Becker et al., 2020, Pache et al., 2020; Hamberger et al., 2020). Feminist perspectives argue that gendered social constructs, especially gender roles and subordination of

women by men (i.e., patriarchy), create power structures in intimate relationships where male perpetrated IPV is socialized as acceptable (Becker et al., 2020; Dobash & Dobash, 1979). Patriarchy also extends to social statuses outside the intimate relationship and reinforces the disparities between social power and control by men (Becker et al., 2020). Research during this time focused on patriarchal power and control, with men using violence within a relationship to maintain power and control over women (Dobash & Dobash, 1979; Yllo, 1984).

Violence-against-women scholars maintain that IPV is gender asymmetrical and primarily unidirectional. Research conducted from this perspective indicates that IPV is largely perpetrated by men as opposed to women (Dobash & Dobash, 2004; Dowd & Lambo, 2020). Women self-report experiencing more lifetime IPV victimization and chronic levels of abuse compared to men (Dobash & Dobash, 2004). Women are also more likely than men to report physical injuries and negative psychological effects of IPV victimization (Dobash & Dobash, 2004).

Family Violence Perspective

Suzanne Steinmetz's (1978) article on battered husbands was the first to challenge the violence-against-women perspective. She argued that men are just as likely as women to be victims of IPV but often underreport victimization (Steinmetz, 1978). Straus and Gelles' (1986) article on the American family revealed similar findings, concluding that women perpetrate violence about as much as men and that IPV perpetration is gender symmetrical or bidirectional. A later meta-analysis of more than 82 studies found that women were slightly more likely to initiate and use violence more frequently than men, although male violence was more likely to produce injury (Archer, 2000). Family

violence scholars attest that IPV is a matter of conflict engrained in everyday stressors of life that can escalate into violent acts (Straus et al., 1980).

To quantitatively measure gender differences and severity in IPV, Straus (1979) developed the Conflict Tactics Scale (CTS) that categorized the list of violent acts used by couples over a set period. CTS was criticized for not measuring the level of injury and any act, a slap or a knockdown punch, was classified as the same act of violence (Dutton & Nicholls, 2005). Acknowledging these critics, Straus developed the CTS2 and added questions about level of injury, other forms of IPV, and coercion (Straus et al., 1996). Today the CTS2 remains the primary tool used by quantitative researchers to study IPV (Dowd & Lambo, 2020).

Contradicting Theories

Despite the growing body of literature that concludes similar rates of IPV perpetration by women and men, researchers and policymakers continue to hold men as perpetrators and women as victims (Dowd & Lambo, 2020). Although feminist scholars eventually acknowledged gender symmetry in IPV perpetration, they maintain women who use violence in intimate relationships do so in self-defense, retaliation against male-perpetrated IPV, or within the context of gender roles and societal oppression (Becker, 2020; Dobash & Dobash, 2004). In response, family violence scholars argue that women cannot solely be acting in self-defense if they are the ones initiating the violence (Hines & Douglas, 2020; Dowd & Lambo, 2020). Violence-against-women researchers posit that family violence scholars only look at the number of violent acts in an intimate relationship rather than studying the whole violent event and fail to understand the severity of the act and the context in which IPV occurs (Dowd & Lambo, 2020; Dobash

& Dobash, 2004). Further critiques lodged at each other include issues with populations sampled, measures of violence and behavior, and covariates used to explain IPV (Heyman et al., 2020; Dowd & Lambo, 2020; Hamberger et al., 2020).

Johnson's Typology of IPV

To address the ongoing gender debate withing IPV research, Johnson (1995) hypothesized that feminist and family violence scholars were arguing about different *types* of IPV that should be evaluated separately. Johnson (1995) initially created two categories to offer contextualized explanations of IPV: intimate terrorism (patriarchal terrorism) and situational couple violence (common couple violence). Intimate terrorism involves violence—among other behaviors—to exert power, dominance, and control over a partner (Johnson, 1995). Intimate terrorism is almost exclusively perpetrated by men and often escalates over time (Johnson, 1995). Nonviolent controlling tactics used by partners perpetrating intimate terrorism can take on violent meanings and are used to instill fear and exert continued dominance over a partner (Johnson, 1995). Situational couple violence is not rooted in control but occurs when a conflict escalates to violence (Johnson, 1995). Conflicts can arise from other issues such as substance use and mood disorders (Heyman et al., 2019; Johnson, 2006). Situational couple violence is gender symmetrical and bidirectional, with males and females perpetrating equally (Johnson, 1995). Both intimate terrorism and situational couple violence can result in violent acts that range from harmless to life-threatening attacks or homicide (Johnson & Leone, 2005).

Johnson's later research extends to include two more categories in his typology: violent resistance and mutual violent control (Johnson, 2006). Violent resistance is

predominantly perpetrated by women, is noncontrolling in nature, and thought to be used to resist acts of intimate terrorism (Johnson, 2006). Mutual violent control is rarely observed in studies and occurs when both partners engage in violent and controlling behaviors—e.g., intimate terrorism (Johnson, 2006). Johnson’s typologies have been used to explain IPV among partners that are controlling but nonviolent (Crossman & Hardesty, 2018), same-sex couples (Frankland & Brown, 2014), and adolescents (Messinger et al., 2014), but more research in these areas needs to be done to explain IPV differences among these unique populations.

Defining Intimate Partner Violence

Today, IPV is defined as abuse or aggression that occurs in romantic relationships (CDC, 2020). IPV is inclusive of any intimate relationship regardless of their relationship status, age, gender, or sexual identity. It varies in severity and is categorized by four specific behaviors: physical violence, sexual violence, psychological aggression, and stalking. Physical violence includes a variety of acts such as kicking, hitting, punching, or the use of other types of physical force to hurt a partner. Sexual violence is forcing or attempting to force a partner to take part in a sexual act without the partner’s consent. It also includes non-physical sexual behaviors such as sharing sexual pictures or sending salacious text messages without consent (e.g., “sexting”). Psychological aggression is the use of manipulative verbal and non-verbal communications with the intent to cause mental or emotional anguish of a partner and/or exert control over them. Stalking is repeated, unwanted attention by a partner that causes fear or concern for one’s own safety. This study focuses on physical and sexual IPV victimization.

Intimate partner violence affects millions of people across the United States. The National Intimate Partner and Sexual Violence Survey (NISVS) indicates that 1 in 4 women and 1 in 10 men have experienced some form of IPV during their lifetime (CDC, 2021). Roughly 11 million women and 5 million men who reported lifetime IPV victimization said they first experienced IPV during adolescence (CDC, 2021). Research has suggested that IPV is developmental in nature and those who are victims of or witness IPV as children are more likely to become victims of IPV or engage in violent behaviors as adults (Niolon et al., 2015; Offenhauer & Buchalter, 2011; Whitton et al., 2016; Petite et al., 2021). Understanding IPV among adolescents is therefore critical in preventing IPV during adulthood.

Since the early 2000s, research on adolescent IPV and dating violence has grown extraordinarily; yet the true prevalence of IPV is unknown due to large methodological differences between studies, including how IPV is defined and operationalized, which affects the target population sampled (e.g., heterosexual vs. LGBTQ+; racial minorities, etc.). Other differences include sampling techniques and sample size as well as the time frame examined. While comparisons are challenging, estimates indicate that approximately 1 in 11 female and 1 in 14 male high school students experience physical dating violence each year, while nearly 1 in 8 female and 1 in 26 male high school students experience sexual dating violence each year (Basile et al., 2020). Some students are at greater risk of victimization than others, however. Rates of victimization among sexual minority youth are often significantly higher than heterosexual youth (Basile et al., 2020; Pollitt & Mallory, 2021; Luo et al., 2014; Levine & Button, 2021; Ray et al., 2021). Adolescents who use illicit substances (Vagi et al., 2015; Rostad et al., 2020;

Taylor & Sullivan, 2017), binge drink (Langenderfer-Magruder et al., 2015; Edwards et al., 2020), engage in sexual risky behaviors (Hipwell et al., 2013; Martin-Storey & Fromme, 2017), experience depression (Edwards et al., 2020; Fix et al., 2021), physically fight with their peers (Vivolo-Kantor et al., 2016), and are bullied (Vivolo-Kantor et al., 2016; Debnam et al., 2016) are also at increased risk of IPV victimization. It is important to study the intersectionality of IPV and other youth experiences to better inform prevention and intervention programming.

Heterosexual Youth

Research on youth intimate partner violence among heterosexual adolescents has focused primarily on assessing gender differences among prevalence rates of victimization and perpetration. When analyzing gender differences in physical intimate partner violence, girls and boys tend to report similar rates of victimization (Wincentak et al., 2017; Offenhauer & Buchalter, 2011; Spencer & Bryant 2000). However, girls exhibit higher prevalence rates of physical violence perpetration than boys (Wincentak et al., 2017; Offenhauer & Buchalter, 2011; Schwartz et al., 1997; Foshee et al., 1996). Anger appears to be the primary reason for violence, but girls also report using violence as self-defense, whereas boys report using violence to exert control over their partner (O’Keefe, 1997).

Pronounced gender differences exist between adolescents in intimate partner sexual violence victimization and perpetration rates. Girls are significantly more likely to experience sexual violence victimization than boys (Offenhauer & Buchalter, 2011; Wincentak et al., 2017; Vagi et al., 2015; Molidor et al., 1998; Foshee et al., 1996). Conversely, boys are significantly more likely to be perpetrators of sexual violence

compared to girls (Niolon et al., 2015; Wincentak et al., 2017; Sears et al., 2007). It has been theorized that boys may be more sexually abusive because of gender roles and may see “coercive behaviors as normative rather than abusive” (Sears et al., 2007).

Heterosexual Youth vs. LGBTQ+ Youth

While our understanding of youth IPV has predominantly focused on gender differences within the heterosexual population, scholars have recently turned their attention to IPV among LGBTQ+ adolescents. Research on youth IPV and LGBTQ+ populations focus on between-group differences regarding the prevalence of sexual minority victimization relative to heterosexual victimization. Across all victimization types, LGBTQ+ youth are more likely to be victims of IPV than their heterosexual peers (Dank et al., 2013; Olsen et al., 2017; Ray et al., 2021; Adams et al., 2020; Edwards et al., 2015; Martin-Storey, 2014; Reuter et al., 2015; Whitton et al., 2016; Levine & Button, 2021). Specifically, youth who self-identify as LGBTQ+ report significantly higher rates of physical IPV victimization and sexual IPV victimization than youth who identify as heterosexual (Edwards et al., 2015). Odds of IPV victimization for sexual minority youth are more than twice that of heterosexual youth (Luo et al., 2014; Edwards et al., 2015; Petit et al., 2021).

These findings are consistent when sexual identity is measured in terms of sexual contact. Youths who report same-sex contact only or sexual contact with both sexes experience significantly higher odds of IPV victimization relative to youths with opposite-sex sexual contact only (Luo et al., 2014; Martin-Storey, 2014; Adams et al., 2020). Male and female students who indicate having sexual contact with same-sex partners or partners of both sexes are more likely to report physical IPV victimization

than students who have sexual contact with the opposite-sex only (Adams et al., 2020). Male (but not female) students who indicate having sexual contact with same-sex partners, and male and female students who identify as having sex with partners of both sexes are significantly more likely to report sexual IPV victimization than students who have sexual contact with the opposite-sex only (Adams et al., 2020). Female students who indicate having sexual contact with same-sex partners only are less likely to report sexual IPV victimization than female students who indicate having sexual contact with opposite-only partners (Adams et al., 2020).

Fewer studies have analyzed perpetration differences between LGBTQ+ and heterosexual youth. Findings show that youth who identify as LGBTQ+ self-report significantly higher rates of physical IPV perpetration (Reuter et al., 2015; Dank et al., 2013; Norris et al., 2020) and sexual IPV perpetration (Reuter et al., 2015) compared to heterosexual peers. These phenomena could be due to high rates of bidirectional violence among adolescents (Plichta, 2018; Norris et al., 2020). Due to the lack of research on perpetration among sexual minority youth, it is difficult to draw conclusions as to why sexual minority youth have higher rates of perpetration than their heterosexual counterparts (Dank et al., 2013; Plichta, 2018).

Variation within LGBTQ+ Youth

Although research on adolescent IPV victimization has become more inclusive of sexual minority youth, it fails to address victimization differences *across* LGBTQ+ subgroups (e.g., gay/lesbian, bisexual, questioning/unsure, and recently transgender). The LGBTQ+ community encapsulates a diverse group of individuals with differing sexual identities; lumping these distinct identities into a monolithic group limits our

understanding of the victimization risks of LGBTQ+ youth. Studies have found variation in victimization risks and health behaviors among sexual minority youth subgroups. Male and female adolescents who identify as bisexual are at greater risk of heavy episodic drinking (Fish et al., 2018, Talley et al., 2014), and report higher engagement in sexual risky behaviors (Rasberry et al., 2018) than other sexual minority subgroups. Males who identify as bisexual and females who identify as lesbian are at greater risk of getting into physical fights than other LGBTQ+ youth (Olsen et al., 2014; Russell et al., 2014). Sexual minority females, specifically bisexual females, are at elevated risk for substance use issues compared to gay, lesbian, and unsure adolescents (Caputi, 2018). The extent to which youth IPV varies as a function of sexual identity is uncertain due to the low number of studies on the subject. Some studies report no differences between physical and sexual IPV victimization and specific LGBTQ+ youth subgroups (Luo et al., 2014; Edwards et al., 2015); others document significant differences in IPV victimization between sexual minority subgroups (Martin-Storey, 2014; Olsen et al., 2017; Reuter et al., 2015; Whitton et al., 2016; Adams et al., 2020; Petit et al., 2021).

Adolescent boys and girls who identify as bisexual are significantly more likely to experience physical or sexual IPV victimization than those that identify as gay or lesbian (Martin-Storey, 2014, Martin-Storey et al., 2021; Whitton et al., 2016; Adams et al., 2020; Petit et al., 2021; Caputi et al., 2020). Girls who identify as bisexual are significantly more likely to report physical and sexual IPV victimization compared to boys who identify as bisexual (Martin-Storey, 2014). Conversely, when looking at adolescent sexual behavior, male students who report having sexual contact with partners of both sexes are more likely to report physical and sexual IPV compared to female

students with partners of both sexes (Martin-Storey, 2014). Higher victimization risks among bisexual youth can be attributed to greater discrimination within and outside of the LGBTQ+ community, as well as the hyper-sexualization of bisexual individuals (Martin-Storey et al., 2021). Youth who identify as bisexual are also more likely to report higher rates of IPV perpetration, adding support to the hypothesis that IPV can be a bidirectional event (Reuter et al., 2015).

Findings on youth who identify as unsure/questioning are mixed. Boys and girls that identified as unsure or questioning were more likely to experience physical or sexual IPV victimization than those that identified as gay or lesbian (Whitton et al., 2016; Olsen et al., 2017). Specifically, odds of victimization for unsure adolescents were 75% higher than gay or lesbian youth (Whitton et al., 2016). Conversely, Martin-Storey (2014) was unable to discern any significant differences between unsure, gay, lesbian, and bisexual youth. She did, however, find that boys who identified as unsure were significantly more likely to report IPV victimization compared to girls identifying as unsure. Edwards et al. (2015) also found no significant differences between specific LGBTQ+ subgroups but concluded that questioning boys had significantly higher rates of physical and sexual IPV victimization than lesbian, gay, and bisexual students. Finally, Olsen and colleagues (2017) found that male students who identified as unsure were six times more likely to experience physical or sexual IPV victimization compared to gay males, bisexual males, and unsure females.

Research in this area also underscores the importance of gender when assessing differences in outcomes. When stratifying the LGBTQ+ community by sex, male sexual minority youth report higher rates of IPV victimization than female sexual minority youth

(Martin-Storey, 2014; Edwards, 2015). Male sexual minority youth also report rates of IPV victimization similar to, or higher than, heterosexual females (Edwards, 2015). Male students who report having sexual contact with same-sex partners are also significantly more likely to report IPV victimization than female students with only same-sex partners (Martin-Storey, 2014). These findings challenge the conclusion of heterosexual IPV research that posits girls are more likely to be victims of IPV than boys and shed light on critical changes needed to address variation in victimization among specific LGBTQ+ subgroups.

Proposed Study

This study fills the knowledge gap of IPV victimization by exploring differences in physical and sexual IPV victimization among LGBTQ+ adolescents using data samples from the CDC's YRBS. As a nationally representative sample of high school students, it is large enough to assess the risks of IPV victimization among the sexual identity subgroups. Recent work by Levine and Button (2021) used survey results from the 2017 YRBS and concluded that sexual minority youth across the United States were at increased risk for IPV victimization. The current study is a partial replication and extension of Levine and Button's (2021) work that pools 2017 and 2019 YRBS data to look at differences between heterosexual and sexual minority youth as well as within group differences among LGBTQ+ adolescents (e.g., gay/lesbian, bisexual, and unsure). Moving away from using descriptive statistics to explain differences in IPV victimization, this study will use bivariate and multivariate modeling to determine if there is an association between sexual minority status and IPV victimization risks, and if the relationship between IPV victimization and sexual minority status is mediated after

controlling for theoretically relevant variables. Based on past literature, the current study aims to address the following research questions:

1. Are LGBTQ+ youth more likely than heterosexual youth to be victims of physical and sexual IPV?
2. Does physical and sexual IPV victimization vary within LGBTQ+ subgroups (i.e., gay/lesbian, bisexual, unsure)?
3. Is the elevated risk of LGBTQ+ youth physical and sexual IPV victimization mediated by bullying victimization, engagement in antisocial behaviors, sexual risk-taking behavior, substance use, binge drinking, negative affect, and suicidal ideation?

III. METHODS

Data Source

The Centers for Disease Control and Prevention's (CDC) Youth Risk Behavior Survey (YRBS) is a nationally representative self-report survey conducted to examine health-risk behaviors among high school students across the United States. It uses a three-stage cluster sample design and is administered to 9th to 12th grade students. In the first stage, a random sample of classes is selected from a nationally representative sample of schools. Students then complete a computer-scannable questionnaire booklet that takes approximately 45 minutes to complete (Underwood et al., 2020). The YRBS data are then de-identified and made publicly available. Because of this, empirical research based on this data are exempt from review by the Institutional Review Board (IRB) as determined by Research Integrity and Compliance (RIC) at Texas State University.

The survey consists of 99 questions categorized into six health-related behaviors: (1) behaviors that contribute to unintentional injuries and violence; (2) tobacco use; (3) alcohol and other drug use; (4) sexual behaviors related to unintended pregnancies and STD/HIV infection; (5) dietary behaviors; and (6) physical inactivity (Kann et al., 2018, Underwood et al., 2020). All questions, except for those asking about respondent height, weight, and race were single, select multiple choice questions with a maximum of eight response options.

Sample

Data from high school students using the 2017 and 2019 waves of the national YRBS were combined. The school response rates for the 2017 and 2019 national YRBS were 75.0% and 75.1% and student response rates were 81.0% and 80.3%, respectively

(Kann et al., 2018; Underwood et al., 2020). Overall response rates, calculated by taking the product of the school and student response rates for each cycle, were 60.0% for 2017 and 60.3% for 2019 (Kann et al., 2018; Underwood et al., 2020). The initial sample size for the national 2017 YRBS was 14,765 high school students. In 2019, the sample size was 13,677. The resulting sample size for the combined 2017 and 2019 national YRBS was 28,442 high school students. Studies using YRBS data use listwise deletion for missing data, as imputation of missing data is not recommended (Brener et al., 2013). Therefore, the analyses in this study were limited to adolescents who reported having dated in the last twelve months. The result is a final analytic sample of $n = 15,187$. Roughly half of the sample was female (50.1%, $n = 7,555$). Approximately half (53.3%, $n = 7,931$) of the adolescents self-identified as White, 12.9% as Black/African American, 25.3% as Hispanic/Latino, and 8.5% as other. The bulk of the adolescents reported being 15 years of age or older (89.8%, $n = 13,610$). The majority of adolescents self-identified as heterosexual (86.2%, $n = 12,567$), 2.2% as gay/lesbian, 8.6% as bisexual, and 3% indicated not sure about their sexual identity.

Variables

Dependent Variables

The dependent variables examined in this study tap measures of adolescent IPV: physical violence and sexual violence. Both variables are based on a single survey question and are operationalized as binary measures. The first dependent variable, *physical IPV victimization*, was measured by asking, “During the past 12 months, how many times did someone you were dating or going out with physically hurt you on purpose? (Count such things as being hit, slammed into something, or injured with an

object or weapon.)” with responses ranging from “I did not date or go out with anyone in the past 12 months” to “six or more times.” Responses were recoded so that adolescents who reported being physically victimized at least one or more times within the previous 12 months were coded as 1; otherwise, they were coded as 0. This treatment of the variable allows one to assess the overall risk/likelihood that LGBTQ+ youth experience physical violence.

The second dependent variable, *sexual IPV victimization*, was measured based on the response to the 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.)” Responses for this question ranged from “I did not date or go out with anyone in the past 12 months” to “six or more times.” Adolescents who reported being sexually victimized one or more times within the previous 12 months were coded as 1; all other responses were coded as 0. Students who did not date during the previous 12 months were excluded from analyses.

Primary Predictor Variable

Because the focus of this study is on explaining variation in IPV victimization between straight and LGBTQ+ youth, and within LGBTQ+ youth, *sexual identity* is of primary interest. I utilized a four-category nominal variable based on the following question, “Which of the following describes you?” “heterosexual (straight),” “gay or lesbian,” “bisexual,” or “not sure.” Respondents who identified as heterosexual serve as the reference category.

Sociodemographic Variables

Several sociodemographic variables germane to the research questions are also included, specifically measures of sex, race/ethnicity, age, and other theoretically relevant behaviors among adolescents. *Sex* was coded as a binary variable where male was coded as 1. *Race/ethnicity* was a categorical measure consisting of non-Hispanic White (reference category), non-Hispanic Black/African American, Hispanic/Latino, and other race/ethnicity. *Age* is dummy coded, due to censorship on the upper and lower categories, with options “13 years old or younger,” “14 and 15 years old,” “16 and 17 years old” and “18 years old or older.”

Mediator Variables

Engagement in antisocial behaviors such as fighting with peers is based on response to the question, “During the past 12 months, how many times were you in a physical fight on school property?” with responses ranging from 0 to 12 or more times. The variable was recoded into binary categories in which adolescents who fought one or more times within the previous 12 months were coded as 1 with all other responses coded as 0.

Sexual risk-taking behavior is based on the total number of sexual partners the respondents reported having in their lifetime. The number of sexual partners is a previously identified measure of sexual risk-taking behaviors among adolescents (O’Hara & Cooper, 2015). Sexual risk-taking behavior was measured as an ordinal variable based on the response to the question, “During your life, with how many people have you had sexual intercourse” with response options: “I have never had sexual intercourse,” “1 person,” “2 people,” “3 people,” “4 people,” “5 people,” “6 or more people.” Sexual risk-

taking behavior was recoded into a binary variable in which adolescents who reported having sexual intercourse with four or more persons during their lifetime as 1; otherwise, they were coded as 0. Having four or more sexual partners is a standard cut point that indicates a high number of sexual partners (Ethier et al., 2003; Kuortti & Kosunen, 2009).

Substance use was assessed using self-reported, lifetime frequencies. Adolescents who reported any lifetime use of marijuana or other illicit drugs were coded dichotomously with reported frequencies of one or more times coded as 1, and no lifetime drug use coded with 0. Illicit drugs included prescription drugs, cocaine/crack, inhalants, heroin, methamphetamines, ecstasy, hallucinogenic, and other intravenous drugs. The specific survey questions used to construct this category are presented in Appendix A.

Binge drinking was evaluated based on the response to the question, “During the past 30 days, on how many days did you have 4 or more drinks of alcohol in a row, that is, within a couple of hours (if you are female) or 5 or more drinking of alcohol in a row, that is, within a couple of hours (if you are male)?” with responses ranging from 0 days to 20 or more days. Binge drinking was recoded into a binary variable in which adolescents who reported one or more days of consuming 4 or more, or 5 or more, drinks within a couple of hours within the past 30 days as 1; otherwise, they were coded as 0.

Negative affect is a proxy measure for mental health disorder because there are no survey questions that ask about official diagnoses. Negative affect is determined by the response to the question, “During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual

activities?” with response options “yes” or “no”. Responses were dummy coded with a yes response coded as 1, and a no response with 0.

Suicidal ideation is a binary variable based on the response to the question, “During the past 12 months, did you ever seriously consider attempting suicide?” with response options “yes” or “no”. Responses were dummy coded with a yes response coded as 1, and a no response with 0.

Bullying victimization was measured as a binary variable using two questions from the YRBS: “During the past 12 months, have you ever been bullied on school property?” and “During the past 12 months, have you ever been electronically bullied? (Count being bullied through texting, Instagram, Facebook, or other social media)”. Adolescents who responded with yes to either question, or both questions, were coded as 1; otherwise, they were coded as 0.

Plan of Analysis

Bivariate logistic regression models will be used to address my first two research questions. The first bivariate logistic regression model will compare heterosexual and LGBTQ+ adolescents to determine if there are differences in the odds of physical and sexual IPV victimization between these two groups. The second bivariate logistic regression will assess risk differences in physical and sexual IPV victimization within the LGBTQ+ subgroups (e.g., gay/lesbian, bisexual, and not sure). To address research question three, I will use multivariate logistic regression modeling to determine whether the relationship between physical and sexual IPV victimization and sexual identity is attenuated after controlling for risky behaviors. Two multivariate models will assess physical IPV victimization, one model comparing victimization differences between

heterosexual and LGBTQ+ youth, and one model looking within LGBTQ+ subgroups.

Two other multivariate models will assess sexual IPV victimization, one model evaluating victimization differences between heterosexual and LGBTQ+ youth, and one model comparing within differences among LGBTQ+ subgroups.

IV. RESULTS

Sample Characteristics

Table 1 shows sample characteristics for the 15,187 adolescents who reported having dated within the previous twelve months. Of the 15,187 respondents, more than one quarter reported getting into a physical fight at least once in their lifetime. Nearly one out of eight adolescents had sexual intercourse with four or more persons during their lifetime. At the time of the survey, about 17% of the sample reported engaging in binge drinking and 18.9% used an illicit substance in their lifetime. Approximately one out of three adolescents reported feeling sad or hopeless almost every day for two weeks or more in a row to the extent that they stopped doing some usual activities, and one out of five reported experiencing suicidal ideation in the last year. About one fourth of respondents experienced bullying, either on school property or electronically, within the last year.

Bivariate Logistic Regression

Table 2 presents respective zero-order correlations between sexual identity, physical IPV, and sexual IPV victimization. Adolescents who identified as LGBTQ+ were 2.56 times more likely to report physical IPV victimization and 2.90 times more likely to report experiencing sexual IPV victimization. When stratifying LGBTQ+ youth by sexual identity subgroups, adolescents who identified as gay/lesbian incurred 2.5 times greater odds of physical IPV victimization and 1.66 higher odds of sexual IPV victimization relative to their heterosexual peers. Sexual minority youth who identified as bisexual were 2.64 times more likely to experience physical IPV victimization and 3.36 times more likely to experience sexual IPV victimization than heterosexual youth.

Table 1.*Sample characteristics (N = 15,187)*

Variables	Frequency (%)
Dependent Variables	
Experienced Physical IPV	
Yes	1,101 (7.2)
No	14,086 (92.8)
Experienced Sexual IPV	
Yes	1,128 (7.4)
No	14,059 (92.6)
Primary Predictor Variable	
Sexual Identity	
Heterosexual	12,567 (86.2)
Gay/Lesbian	325 (2.2)
Bisexual	1,258 (8.6)
Not Sure	437 (3.0)
Sociodemographic/Mediator Variables	
Gender	
Female	7,555 (50.1)
Male	7,522 (49.9)
Race/Ethnicity	
White	7,931 (53.3)
Black/African American	1,916 (12.9)
Hispanic/Latino	3,770 (25.3)
Other	1,260 (8.5)
Age (years)	
13 years or younger	48 (0.3)
14 years	1,446 (9.6)
15 years	3,409 (22.6)
16 years	3,951 (26.2)
17 years	3,927 (26.0)
18 years or older	2,323 (15.4)
Ever got into a physical fight	
Yes	3,826 (26.6)
No	10,547 (73.4)
Had sexual intercourse with four or more persons	
Yes	1,673 (12.1)
No	12,189 (87.9)
Ever used an illicit substance	
Yes	2,468 (18.9)
No	10,609 (81.1)
Currently binge drinking	
Yes	2,376 (17.0)
No	11,581 (83.0)
Had symptoms of depression	
Yes	5,395 (35.8)
No	9,694 (64.2)
Past year suicidal ideation	
Yes	2,857 (19.0)
No	12,207 (81.0)
Ever been bullied	
Yes	3,804 (25.2)
No	11,285 (74.8)

LGBTQ+ adolescents who identified as “not sure” had 2.38 higher odds of physical IPV victimization and 2.59 higher odds of sexual IPV victimization than heterosexual adolescents.

These bivariate logistic regression analyses address the first research question, confirming that when compared to heterosexual youth, those who identify generally as LGBTQ+, and those who identify more specifically as gay/lesbian, bisexual, or unsure, all have higher odds of reporting physical and sexual victimization in a dating relationship. Additionally, it is important to ascertain whether there are differences in physical and sexual victimization among the subcategories of LGBTQ+ youth.

Table 2.

Logistic regression of sexual identity, physical IPV and sexual IPV victimization

	Physical IPV Victimization OR (95% CI)	Sexual IPV Victimization OR (95% CI)
Sexual Identity		
Heterosexual (ref)	1.00	1.00
LGBTQ+	2.56 (2.21, 2.96) ***	2.90 (2.52, 3.34) ***
Gay/Lesbian	2.50 (1.81, 3.46) ***	1.66 (1.14, 2.42) **
Bisexual	2.64 (2.22, 3.14) ***	3.36 (2.86, 3.96) ***
Not sure	2.38 (1.79, 3.17) ***	2.59 (1.96, 3.42) ***

OR = Odds Ratio. CI = Confidence Interval

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

Table 3 presents the results of zero-order correlations between sexual minority identity, physical IPV, and sexual IPV victimization. Within LGBTQ+ subgroups, there are no significant differences between sexual minority identity and physical IPV victimization. There were also no significant differences between adolescents who identified as not sure, compared to gay/lesbian youth, and sexual IPV victimization. However, adolescents

that identified as bisexual were twice as likely to experience sexual IPV victimization compared to their gay/lesbian peers. Having established that LGBTQ+ youth differ from heterosexual youth in victimization experiences, and that bisexual youth differ even from gay/lesbian youth in victimization experiences, it remains to be seen whether these associations are mediated by demographic and other behavioral correlates of IPV victimization

Table 3.

Logistic regression of sexual identity subgroups, physical IPV and sexual IPV victimization

	Physical IPV OR (95% CI)	Sexual IPV OR (95% CI)
Sexual Identity		
Gay/Lesbian (ref)	1.00	1.00
Bisexual	1.05 (0.74, 1.50)	2.02 (1.36, 3.01)**
Not sure	0.95 (0.63, 1.45)	1.55 (0.98, 2.46)

OR = Odds Ratio. CI = Confidence Interval

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

Multivariate Logistic Regression

Heterosexual Youth vs. LGBTQ+ Youth

Table 4 presents the results for two multivariate logistic regression models examining the association between sexual identity and physical IPV victimization, controlling only for the demographic variables in Model 1. Those who identified as LGBTQ+ had 2.39 times higher odds of physical IPV victimization compared to their heterosexual peers. Females (compared with males), older youth, and Black/African American and other racial minority youth (compared with non-Hispanic White youth) also had higher odds of physical victimization in dating relationships.

Table 4.*Logistic regression models predicting physical IPV victimization among adolescents*

	Model 1		Model 2	
	Demographics		Mediating variables	
	OR	95% CI	OR	95% CI
LGBTQ+	2.39	[2.05, 2.79] ***	1.33	[1.08, 1.63] **
Male	0.86	[0.75, 0.98] *	0.89	[0.74, 1.06]
Age	1.09	[1.03, 1.15] **	1.06	[0.99, 1.13]
Black or African American	1.31	[1.08, 1.59] **	1.33	[1.01, 1.75] *
Hispanic/Latino	1.13	[0.97, 1.32]	1.06	[0.87, 1.29]
Other	1.32	[1.06, 1.65] *	1.06	[0.80, 1.42]
Ever got into a physical fight			2.12	[1.77, 2.52] ***
Had sexual intercourse with four or more persons			1.77	[1.43, 2.18] ***
Ever used illicit substance			1.49	[1.23, 1.80] ***
Currently binge drinking			1.53	[1.26, 1.86] ***
Had symptoms of depression			2.12	[1.74, 2.60] ***
Past year suicidal ideation			1.46	[1.20, 1.78] ***
Ever been bullied			2.02	[1.70, 2.41] ***

OR = Odds Ratio. CI = Confidence Interval

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

The effect for LGBTQ+ identity was partially mediated with the addition of measures tapping risky behaviors in Model 2. Upon controlling for these indicators in Model 2, adolescents who identified as LGBTQ+ were still 1.33 times more likely to experience physical IPV victimization than adolescents who identified as heterosexual. Black/African American youth had 33% higher odds of physical IPV victimization compared to their non-Hispanic White peers. However, the effects of age and being male on physical IPV victimization were fully mediated when risky behavior variables were included in Model 2.

Controlling for other variables in Model 2, adolescents who engaged in physical fighting had 2.12 times higher odds of being victims of physical IPV and adolescents who had sexual intercourse with four or more persons in their lifetime were 1.77 times more likely to experience physical IPV victimization. Likewise, respondents who reported having ever used illicit drugs had 1.49 times higher odds of physical IPV victimization youth who were currently binge drinking had 1.53 times higher odds of physical IPV victimization.

Negative affect, suicidal ideation, and being bullied were also significantly associated with physical IPV victimization. Controlling for other factors in Model 2, those who reported feeling sad or hopeless were 2.12 times more likely to experience physical IPV victimization. Youth who reported suicidal ideation within the past 12 months had 46% higher odds of physical IPV victimization. Adolescents who were bullied, either on school property or electronically, had 2.02 times higher odds of suffering physical IPV victimization compared to those who were not bullied.

Table 5 displays multivariate logistic regression models assessing the association between sexual identity and sexual IPV victimization. Controlling for demographic variables in Model 1, adolescents who identified as LGBTQ+ had 2.17 times higher odds of sexual IPV victimization compared to their heterosexual peers. Males had lower odds of sexual victimization compared with females, and compared with non-Hispanic White youth, Black/African American youth had lower odds of sexual victimization, whereas members of other racial minority groups had higher odds of sexual victimization.

The effect for LGBTQ+ identity was also partially attenuated with the addition of risky behaviors in Model 2. Controlling for risky behaviors in Model 2, adolescents who identified as LGBTQ+ were still 1.37 times more likely to experience sexual IPV victimization than heterosexual youth. Those who identified as male had 76% lower odds of sexual IPV victimization compared to those who identified as female; it should be noted that the effect of being male on sexual victimization was not mediated by risky behavior variables, as it was in the case of physical victimization. Likewise, Black/African American adolescents had 30% lower odds of sexual IPV victimization compared to their non-Hispanic White peers, even after controlling for risky behaviors.

Upon controlling for other variables in Model 2, adolescents who engaged in physical fighting had 1.62 times higher odds of being victims of sexual IPV and adolescents who had sexual intercourse with four or more persons in their lifetime were 1.81 times more likely to experience sexual IPV victimization. Negative affect, suicidal ideation, and being bullied were also significantly associated with sexual IPV victimization. Controlling for other factors in Model 2, adolescents who reported feeling sad or hopeless were 2.26 times more likely to suffer sexual IPV victimization. Youth

Table 5.*Logistic regression models predicting sexual IPV victimization among adolescents*

	Model 1		Model 2	
	Demographics		Mediating variables	
	OR	95% CI	OR	95% CI
LGBTQ+	2.17	[1.87, 2.51] ***	1.37	[1.13, 1.65] **
Male	0.28	[0.24, 0.33] ***	0.24	[0.20, 0.30] ***
Age	1.00	[0.95, 1.06]	0.99	[0.92, 1.06]
Black or African American	0.70	[0.56, 0.89] **	0.70	[0.50, 0.98] *
Hispanic/Latino	1.07	[0.92, 1.24]	1.10	[0.91, 1.33]
Other	1.46	[1.18, 1.80] ***	1.20	[0.92, 1.58]
Ever got into a physical fight			1.61	[1.34, 1.94] ***
Had sexual intercourse with four or more persons			1.81	[1.45, 2.25] ***
Ever used illicit substance			1.51	[1.25, 1.83] ***
Currently binge drinking			1.28	[1.05, 1.56] *
Had symptoms of depression			2.26	[1.85, 2.76] ***
Past year suicidal ideation			1.52	[1.26, 1.83] ***
Ever been bullied			2.09	[1.76, 2.47] ***

OR = Odds Ratio. CI = Confidence Interval

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

who experienced suicidal ideation within the past 12 months had 1.52 higher odds of sexual IPV victimization. Adolescents who were bullied, either on school property or electronically, had 2.09 times higher odds of sexual IPV victimization compared to those who were not bullied. Similarly, adolescents who reported ever using illicit drugs had 1.51 times higher odds of sexual IPV victimization and those who were currently binge drinking had 1.28 times higher odds of sexual IPV victimization.

These multivariate logistic regression analyses partly address the third research question. Sociodemographic variables do not mediate the relationship between LGBTQ+ identity and physical and sexual IPV victimization, and risky behaviors only partially mediate the relationship. Furthermore, given the previously identified differences in physical and sexual victimization risks within LGBTQ+ subgroups, it is important to determine whether victimization differences remain significant after controlling for sociodemographic and risky behaviors.

Variation within LGBTQ+ Youth

Table 6 presents the results for two multivariate logistic regression models examining the association within LGBTQ+ subgroups (e.g., gay/lesbian, bisexual, not sure) and physical IPV victimization. Upon controlling for demographic variables in Model 1, identifying as bisexual or not sure was not a significant predictor of physical IPV victimization when compared to gay/lesbian youth. In fact, the only variable in Model 1 that had a significant association with physical IPV victimization was Black/African American: these youth, compared with their non-Hispanic White peers, had 1.46 times higher odds of experiencing physical IPV victimization.

Table 6.

Logistic regression models predicting physical IPV victimization among LGBTQ+ adolescents

	Model 1		Model 2	
	Demographics		Mediating variables	
	OR	95% CI	OR	95% CI
Bisexual	1.19	[0.82, 1.72]	0.79	[0.50, 1.26]
Not sure	0.89	[0.57, 1.38]	0.85	[0.48, 1.51]
Male	1.22	[0.90, 1.65]	1.22	[0.80, 1.85]
Age	1.07	[0.96, 1.19]	0.99	[0.86, 1.15]
Black or African American	1.46	[1.03, 2.07] *	1.83	[1.05, 3.19] *
Hispanic/Latino	0.93	[0.67, 1.30]	0.81	[0.53, 1.24]
Other	0.89	[0.55, 1.44]	0.73	[0.37, 1.46]
Ever got into a physical fight			1.95	[1.36, 2.80] ***
Had sexual intercourse with four or more persons			1.68	[1.10, 2.56] *
Ever used illicit substance			1.60	[1.09, 2.34] *
Currently binge drinking			2.10	[1.41, 3.14] ***
Had symptoms of depression			2.52	[1.49, 4.25] **
Past year suicidal ideation			1.58	[1.06, 2.37] *
Ever been bullied			1.38	[0.97, 1.96]

OR = Odds Ratio. CI = Confidence Interval

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

Controlling for risky behaviors in Model 2, LGBTQ+ Black/African American adolescents had 1.83 times higher odds of physical IPV victimization. Sexual minority youth who reported physically fighting in the past twelve months had 1.95 times higher odds of being victims of physical IPV and those who had sexual intercourse with four or more persons during their lifetime were 1.68 times more likely to experience physical IPV victimization.

LGBTQ+ adolescents who engaged in illicit drug use during their lifetime had 1.60 times higher odds of physical IPV victimization and LGBTQ+ youth who were currently binge drinking had 2.10 times higher odds of physical IPV victimization. Negative affect and suicidal ideation were also significantly associated with physical IPV victimization. Controlling for other factors in Model 2, sexual minority youth who reported feeling sad or hopeless were 2.52 times more likely to experience physical IPV victimization. LGBTQ+ adolescents who reported suicidal ideation within the past 12 months had 1.58 higher odds of physical IPV victimization.

Table 7 shows the multivariate logistic regression results examining the association within LGBTQ+ subgroups (e.g., gay/lesbian, bisexual, not sure) and sexual IPV victimization. Controlling for demographic variates in Model 1, LGBTQ+ adolescents who identified as bisexual were twice as likely to experience sexual IPV victimization compared to gay/lesbian youth. Males (compared with females) and Black/African American (compared with non-Hispanic White) youths had significantly lower odds of sexual IPV victimization.

Upon controlling for measures of risky behaviors in Model 2, sexual minority youth who identified as bisexual had 2.26 times higher odds of sexual IPV victimization.

Table 7.*Logistic regression models predicting sexual IPV victimization among LGBTQ+ adolescents*

	Model 1		Model 2	
	Demographics		Mediating variables	
	OR	95% CI	OR	95% CI
Bisexual	2.00	[1.32, 3.05] **	2.26	[1.32, 3.88] **
Not sure	1.52	[0.94, 2.46]	1.96	[1.04, 3.67] *
Male	0.70	[0.51, 0.97] *	0.58	[0.38, 0.90] *
Age	0.98	[0.88, 1.08]	0.96	[0.84, 1.10]
Black or African American	0.54	[0.35, 0.83] **	0.68	[0.36, 1.28]
Hispanic/Latino	1.10	[0.82, 1.47]	1.15	[0.80, 1.65]
Other	0.98	[0.64, 1.51]	0.99	[0.57, 1.70]
Ever got into a physical fight			1.84	[1.32, 2.58] ***
Had sexual intercourse with four or more persons			2.07	[1.40, 3.05] ***
Ever used illicit substance			1.53	[1.09, 2.16] *
Currently binge drinking			1.25	[0.85, 1.83]
Had symptoms of depression			1.88	[1.18, 2.98] **
Past year suicidal ideation			2.03	[1.41, 2.93] ***
Ever been bullied			1.58	[1.15, 2.18] **

OR = Odds Ratio. CI = Confidence Interval

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Interestingly, the null effects of “not sure” youth become statistically significant and is evidence of a suppressor effect. By their nature, suppressor effects are difficult to interpret and should be guided heavily by prior theory and research. I elaborate on this in my discussion of the current study’s limitations and directions for future research.

LGBTQ+ youth who identified as female had 42% higher odds of sexual IPV victimization compared to those who identified as male, demonstrating that the inclusion of risky behaviors in Model 2 did not mediate the effect of gender on sexual IPV victimization. These variables did fully mediate the effect of Black/African American on sexual IPV victimization, however.

Sexual minority youth who engaged in physical fighting had 1.84 times higher odds of being victims of sexual IPV and sexual minority youth who had sexual intercourse with four or more persons in their lifetime were 2.07 times more likely to experience sexual IPV victimization. Adolescents who identified as LGBTQ+ and reported ever using illicit drugs had 1.53 times higher odds of sexual IPV victimization. Negative affect, suicidal ideation, and being bullied were also significantly associated with sexual IPV victimization. Upon controlling for other variables in Model 2, LGBTQ+ adolescents who reported feeling sad or hopeless were 1.88 times more likely to experience sexual IPV victimization. Sexual minority youth who experienced suicidal ideation within the past 12 months had 2.03 times higher odds of sexual IPV victimization. LGBTQ+ youth who were bullied, either on school property or electronically, had 58% higher odds of sexual IPV victimization compared to those who were not bullied.

To fully address the third research question, sociodemographic variables, again, do not mediate the relationship between LGBTQ+ sexual identity subgroups and physical and sexual IPV victimization. The inclusion on risky behaviors also does not attenuate the relationship between LGBTQ+ identity and physical and sexual IPV victimization, and a suppressor effect emerges for not sure individuals when looking at sexual IPV victimization.

V. DISCUSSION

The current study used data from a nationally representative survey to examine the association between sexual identity, and physical IPV and sexual IPV victimization among adolescents. Extending previous literature, this study included an investigation into the mediating role of bullying victimization, engagement in antisocial behaviors, sexual risk-taking behavior, substance use, binge drinking, negative affect, and suicidal behavior. Several findings merit discussion. First, there are pronounced differences in IPV victimization between LGBTQ+ and heterosexual youth. Second, sexual minority youth are not a monolithic group. There is variation in physical and sexual IPV victimization depending on one's sexual identity and race/ethnicity. Third, although the mediator variables (e.g., risky behaviors) included in these analyses remain robust across all four models, LGBTQ+ youth remain at elevated risk of physical and sexual IPV victimization.

Consistent with previous literature, findings suggest that sexual minority youth are at greater risk of physical IPV and sexual IPV victimization compared to their heterosexual counterparts (Luo et al., 2014; Whitton et al., 2016; Levine & Button, 2021; Martin-Storey, 2014; Olsen et al., 2017). The association between sexual identity and IPV victimization was partially attenuated when accounting for mediating variables. Yet the partial attenuation through risky behaviors and negative life experiences posits that sexual identity alone is not the driving force behind victimization disparities between heterosexual and LGBTQ+ youth.

As mentioned, LGBTQ+ youth are not a monolithic group and vary by subgroup identities. Sexual identity subgroups (e.g., gay/lesbian, bisexual, not sure) were

associated with differences in risk for sexual IPV victimization, but not physical IPV victimization. Adolescents who identified as bisexual were more than twice as likely to experience sexual IPV victimization compared to those who identified as gay or lesbian, even after accounting for demographic and mediating variables. This result is consistent with previous research that suggests bisexual youth are at higher risk of sexual IPV victimization than their self-identified gay or lesbian peers (Martin-Storey, 2014, Martin-Storey et al., 2021; Whitton et al., 2016; Adams et al., 2020; Petit et al., 2021; Caputi et al., 2020). Research suggests that bisexual youth may encounter discrimination from both heterosexual and gay or lesbian peers (e.g., dual marginalization) that may increase their vulnerability for victimization (Rostad et al., 2020; Whitton et al., 2016; Martin-Storey & Fromme, 2017; Reuter, 2015). The ostracization of bisexual youth may exert deleterious effects and facilitate the onset of additional stressors that can impact IPV victimization risk. Higher victimization risks among bisexual youth can also be attributed to the hypersexualization of bisexual individuals (Martin-Storey et al., 2021). The perceived sexual value of bisexual individuals, by both male and female peers, increases their exposure to potentially vulnerable situations (Martin-Storey et al., 2021). Future research should consider other possible risk factors to further tease out why bisexual youth are at increased risk of sexual IPV victimization compared to their gay or lesbian peers.

Interestingly, youth who identified as “not sure” became statistically significant when controlling for demographic and mediating variables. This finding is evidence of a suppressor effect whereby the stepwise addition of one or more variables into a model flags a statistically significant relationship that was previously not significant. As mentioned, suppressor effects are difficult to interpret and should only be done so when

theoretically specified prior to analyses (Lancaster, 1999). One possible reason is multicollinearity between the independent variables. However, after checking for collinearity in SPSS, all variance inflation factor (VIF) scores were within the acceptable range (Norusis, 2012). The suppressor effect could also be an artifact of the data and might not substantially mean anything. It should be cautioned that these comments are purely speculative and should be interpreted with caution and examined in future research.

Demographic Differences of IPV Victimization

Consistent with previous research, adolescents who identified as Black/African American were at increased risk of physical IPV victimization (Whitton et al., 2016, 2019; Offenhauer et al., 2011; Wincentak et al., 2016; Luo et al., 2014). Tables 8 and 9 show that Black/African youth, whether they identified as a sexual minority or not, were at increased risk of physical IPV victimization. One possible explanation is that Black/African American youth are disproportionately affected by community violence and family violence (Wilson, 2012; West, 2021). Research has found that Black individuals, relative to other race/ethnicities, who observe family violence are more likely to be future perpetrators or victims of IPV (West, 2021). Ethnic/racial minorities are also disproportionately represented in disadvantaged neighborhoods where resources are limited, and different types of violence are commonplace. Both direct and indirect exposure to community violence are associated with higher rates of IPV (West, 2021). However, it is unclear whether elevated risks of IPV victimization among Black/African American individuals is strictly associated with race/ethnicity or is a product of other

factors associated with race, such as socioeconomic status and neighborhood characteristics (Offenhauer et al., 2011; Wincentak et al., 2016).

Table 8.

Summary of findings between heterosexual and LGBTQ+ youth (heterosexuals serve as the reference category)

Model Variables	Physical IPV Victimization	Sexual IPV Victimization
LGBTQ+	+	+
Demographics		
Sex	ns	-
Age	ns	ns
Black/African American	+	-
Mediators		
Ever got into a physical fight	+	+
Had sexual intercourse with four or more persons	+	+
Ever used illicit substance	+	+
Currently binge drinking	+	+
Had symptoms of depression	+	+
Past year suicidal ideation	+	+
Ever been bullied	+	+

“+” or “-” represent a significant positive or negative relationship between physical or sexual IPV victimization and the model variables; “ns” represents a non-significant relationship between physical or sexual IPV victimization and the model variables.

LGBTQ+ youth who identify as Black/African American are also at increased risk of physical IPV victimization (see Table 9). Research posits that having a minority racial status, compounded with a minority sexual identity, may increase risk for physical IPV victimization due to prejudice and discrimination they face from belonging to both minority groups (Whitton et al., 2016; 2019). Nevertheless, the association between IPV victimization and ethnic/racial minority status warrants further investigation to tease out these nuances.

Adolescents who self-identified as female, regardless of sexual minority status, are at elevated risk of sexual IPV victimization (see Tables 8 and 9). These findings are consistent with research regarding sexual IPV victimization among adolescents (Offenhauer & Buchalter, 2011; Wincetak et al., 2017; Vagi et al., 2015; Molidor et al., 1998; Glass et al., 2003). Adolescence is when sexual expression in relationship emerges, thereby creating an opportunity for sexually coercive behaviors to occur (Wincetak et al., 2016; Sears et al., 2007). Table 9 shows that among LGBTQ+ youth, sex was not significantly associated with physical IPV victimization. The absence of any differences between sexual identity subgroups, sex, and physical IPV victimization suggests that physical IPV among sexual minority youth is likely bidirectional in nature and a form of coercive control shared by both parties within a relationship (Frankland & Brown, 2013; Stark & Hester, 2018). Conversely, sex remained significantly associated with sexual IPV victimization. LGBTQ+ youth who identified as female were 42% more likely to be victims of sexual IPV compared to self-identified sexual minority males. Previous research examining the intersectionality of sex, sexual identity, and sexual IPV victimization is mixed, suggesting the sexual IPV victimization among LGBTQ+ youth is complex and not solely predicted by self-identified sex (Adams et al., 2020; Edwards, 2015; Olsen et al., 2017). Further insight is warranted to understand the association between sex, sexual identity, and sexual IPV victimization.

Risk Factors of IPV Victimization

This study incorporated a wide array of demographic and risk variables to explore whether the relationship between sexual identity and IPV victimization was mediated by other factors. Although these factors did not fully mediate the association between sexual

identity and IPV victimization, they remained significantly correlated with IPV victimization risk when comparing heterosexual and LGBTQ+ youth and looking within LGBTQ+ youth subgroups (see Table 8 and Table 9). Consistent with previous findings, the number of sexual partners did not mediate the relationship between sexual identity and IPV victimization but was associated with increased physical and sexual IPV victimization risk (Martin-Storey & Fromme, 2017; Whitton et al., 2016). Research suggests that the association between the number of sexual partners and IPV victimization may be through their association with general risk and not a specific elevator of IPV (Martin-Storey & Fromme, 2017).

When comparing heterosexual and LGBTQ+ youth, binge drinking was associated with higher odds of physical and sexual IPV victimization. Within LGBTQ+ youth, binge drinking was not associated with sexual IPV victimization, only physical IPV victimization. Although LGBTQ+ youth report higher levels of alcohol use (Talley et al., 2014; Fish et al., 2018), findings examining the association between alcohol intake and IPV victimization report inconsistent effects, suggesting that alcohol use may not be a prominent predictor of IPV (Whitton et al., 2016; Martin-Storey & Fromme, 2017; Stroem et al., 2021; Edwards et al., 2020). Substance use was associated with increased risk of both physical and sexual IPV victimization across all four models, regardless of sexual identity. Research suggests that substance use is often a coping mechanism for those who experience IPV victimization (Whitton et al., 2016). Since this study is unable to establish temporal order, the interpretation of the association between IPV and substance use should be met with caution.

Table 9.

Summary of findings within LGBTQ+ youth (gay/lesbian serve as the reference category)

Model Variables	Physical IPV Victimization	Sexual IPV Victimization
Bisexual	ns	+
Not sure	ns	+
Demographics		
Sex	ns	-
Age	ns	ns
Black/African American	+	ns
Mediators		
Ever got into a physical fight	+	+
Had sexual intercourse with four or more persons	+	+
Ever used illicit substance	+	+
Currently binge drinking	+	ns
Had symptoms of depression	+	+
Past year suicidal ideation	+	+
Ever been bullied	ns	+
“+” or “-” represent a significant positive or negative relationship between physical or sexual IPV victimization and the model variables; “ns” represents a non-significant relationship between physical or sexual IPV victimization and the model variables.		

Across all models, youth who reported feeling sad or hopeless, or experienced suicidal ideation had higher odds of physical and sexual IPV victimization. Much like substance use, depression and suicide are negative outcomes associated with IPV victimization (Dank et al., 2013; Fix et al., 2021). Therefore, interpretation of this relationship should also be cautioned. Being bullied was significantly associated with physical and sexual IPV victimization when comparing heterosexual and sexual minority youth but was only significant with sexual IPV victimization within LGBTQ+ youth. Consistent with previous literature, adolescents who experience bullying were more likely to be victims of IPV (Debnam et al., 2016). Among LGBTQ+ youth, research suggests that adolescents who have been bullied due to their sexual identity may be at

greater risk for sexual IPV victimization (Whitton et al., 2016; Debnam et al., 2016).

Dual-marginalization and discrimination within the LGBTQ+ community negatively affects specific sexual identities and increase IPV victimization risk for those individuals (Rostad et al., 2020; Whitton et al., 2016; Martin-Storey & Fromme, 2017).

Physical fighting was associated with both physical and sexual IPV victimization across all models. Previous research posits that youth who engaged in physical fighting were more likely to report being victims of physical or sexual IPV (Vivolo-Kantor et al., 2016; Fix et al., 2021). It is hypothesized that youth who are experiencing IPV are engaging in other violent, risky behaviors as a means of coping with victimization (Vivolo-Kantor et al., 2016; Whitton et al., 2016; Dank et al., 2013; Fix et al., 2021). However, these comments are speculative due to the cross-sectional nature of this study.

Limitations

As with any study, there are limitations that should be noted. First, due to the cross-sectional nature of this study, I am unable to disentangle whether association between engagement in risky behaviors and negative life experiences caused higher rates of IPV or if being a victim of IPV resulted in reporting involvement with risky behaviors and experiencing negative life outcomes. This study is also unable to establish temporal ordering of IPV victimization and classification into sexual identity groups. For example, an adolescent could report IPV victimization from a previous heterosexual relationship but now identify as a member of the LGBTQ+ community. Future studies should incorporate a longitudinal approach to better understand the temporal ordering of IPV and other risk factors. Second, although the YRBS recently expanded to add questions pertaining sexual identity, it fails to encapsulate all possible sexual identities. Since

response options to the sexual identity question are not exhaustive, youth who identify as transgender or non-binary must choose what option best represents their identity. Failure to measure specific identities within the LGBTQ+ population limits our understanding of the unique risk factors plaguing certain populations. Future iterations of the YRBS should include other sexual identities to further encapsulate the differences between these groups. Third, my assessment of IPV was restricted to single-item measures of physical and sexual IPV victimization. Future research should incorporate other forms of IPV (e.g., psychological abuse) and evaluate perpetration as well as victimization of IPV given the documented bidirectionality of certain types of IPV (Plichta, 2018; Norris et al., 2020; Taylor & Sullivan, 2017). Fourth and finally, the YRBS gathers data via self-report surveys and is subject to reporting biases. Social desirability biases can skew data when adolescents over- or underreport certain behaviors (e.g., sexual identity, substance use, alcohol) based on what they perceive as socially favorable (Lynch & Addington, 2010).

Policy Implications

These findings have implications for policy and practice. First, this study has highlighted differences between sexual minority and heterosexual youth, as well as differences within sexual minority subgroups. Some subgroups have higher odds of IPV victimization than others and may require a more holistic approach to combat the complexity of IPV victimization. Identifying specific risks of IPV victimization allows for tailored intervention and prevention programming for unique at-risk populations. Second, risky behaviors and negative life experiences were significantly associated with IPV victimization. Schools, in particular, should develop programming aimed at reducing these deleterious experiences. Anti-bullying campaigns and teen dating violence

programs should include content discussing heteronormativity and be inclusive of all youth. School staff should also be trained to identify risks associated with IPV as they will inevitably deal with a victimized student. These intervention and prevention programs should adhere to the principles of effective intervention as it pertains to address risk and need (Bonta & Andrews, 2016; West et al., 2004). Ultimately, addressing these findings may have important benefits for improving IPV victimization risk among adolescents and break the cycle of violence that often continues into adulthood.

Conclusion

Intimate partner violence among adolescents continues to be serious public health concern that impacts millions of teens each year. Identifying the risk and needs for this unique population is promising, especially given the lingering effects of IPV victimization. The findings from this study indicate an association between sexual minority status and physical and sexual IPV victimization risk, with risky behaviors and negative life experiences partially attenuating this association. LGBTQ+ youth are significantly more likely than their heterosexual peers to be victims of both physical and sexual IPV. Within the LGBTQ+ community, bisexual youth are more likely to be victims of sexual IPV compared to gay/lesbian youth. Black/African American youth are also at increased risk of physical IPV, whether they identify as a sexual minority or not. Future studies should use a longitudinal approach to fully understand the effect risky behaviors and negative life experiences have on IPV victimization risk. Future studies should also incorporate an intersectional framework to understand the association between race/ethnicity, sexual minority status, and IPV victimization.

APPENDIX SECTION

Appendix A.

Questions Used for Composite Substance Use Variable.

1. During your life, how many times have you used marijuana? (0 times, 1 or 2 times, 3 to 9 times, 10 to 19 times, 20 to 39 times, 40 to 99 times, 100 or more times).
2. During your life, how many times have you taken prescription pain medicine without a doctor's prescription of differently than how a doctor told you to use it? (Same responses as question 2).
3. During your life, how many times have you used any form of cocaine, including powder, crack, or freebase? (Same responses as question 2).
4. During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high? (Same response as question 2).
5. During your life, how many times have you used heroin (also called smack, junk, or China White)? (Same responses as question 2).
6. During your life, how many times have you used methamphetamines (also called speed, crystal meth, crank, ice, or meth)? (Same responses as question 2).
7. During your life, how many times have you used ecstasy (also called MDMA)? (Same responses as question 2).
8. During your life, how many times have you used hallucinogenic drugs, such as LSD, acid, PCP, angel dust, mescaline, or mushrooms? (Same responses as question 2).
9. During your life, how many times have you used a needle to inject any illegal drug into your body? (0 times, 1 time, 2 or more times).

Appendix B.

Zero-order correlations of all measures included in regression models analyzing within LGBTQ+ group differences.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Sexual IPV	1.00															
2. Physical IPV	.32**	1.00														
3. Bisexual	.07*	.01	1.00													
4. Not sure	-.02	-.01	-.68**	1.00												
5. Gender	-.16**	-.04**	-.24**	.18**	1.00											
6. Age	-.01	.02*	-.02	.01	.03**	1.00										
7. Black	-.03**	.02*	-.06**	-.01	.02*	-.03**	1.00									
8. Hispanic/Latino	.01	.00	-.03	.02	-.01	-.04**	-.22**	1.00								
9. Other	.03**	.02*	.03	-.02	-.01	.02	-.12**	-.18**	1.00							
10. Fighting	.09**	.16**	.03	-.03	.17**	-.12**	.08**	.01	.01	1.00						
11. Risky Sex	.11**	.15**	.02	-.01	.08**	.17**	.06**	.00	.01	.19**	1.00					
12. Drug Use	.17**	.18**	.07**	-.01	-.01	.03**	-.05**	.04**	.00	.22**	.25**	1.00				
13. Binge drinking	.11**	.13**	.04	-.04	-.00	.13**	-.11**	-.02*	-.02*	.17**	.24**	.31**	1.00			
14. Negative Affect	.22**	.19**	.13**	-.12**	-.24**	-.03**	-.06**	.03**	.04**	.10**	.06**	.19**	.10**	1.00		
15. Suicidal Ideation	.22**	.19**	.12**	-.12**	-.16**	-.02**	-.05**	-.02**	.04**	.11**	.09**	.20**	.10**	.50**	1.00	
16. Bullying Victimization	.19**	.17**	.03	-.03	-.16**	-.09**	-.06**	-.07**	.02*	.12**	.06**	.12**	.03**	.29**	.27**	1.00

* $p < 0.05$, ** $p < 0.01$

Appendix C.

Disaggregated sample characteristics.

Variables	Heterosexual	Gay/Lesbian	Bisexual	Not Sure
Dependent Variables				
Experienced Physical IPV				
Yes	759 (6.0)	45 (13.9)	182 (14.5)	58 (13.3)
No	11,808 (94.0)	280 (86.1)	1075 (85.5)	379 (86.7)
Experienced Sexual IPV				
Yes	752 (6.0)	31 (9.6)	222 (17.6)	62 (14.1)
No	11,815 (94.0)	294 (90.4)	1036 (82.4)	376 (85.9)
Sociodemographic/Mediator Variables				
Gender				
Female	5,772 (46.2)	201 (63.3)	1031 (83.2)	259 (60.5)
Male	6,729 (53.8)	116 (36.7)	208 (16.8)	169 (39.5)
Race/Ethnicity				
White	6,603 (53.6)	144 (44.9)	661 (53.4)	220 (51.8)
Black/African American	1,482 (12.0)	71 (22.1)	166 (13.5)	61 (14.5)
Hispanic/Latino	3,205 (26.0)	80 (25.1)	285 (23.0)	108 (25.5)
Other	1,036 (8.4)	25 (7.9)	125 (10.1)	35 (8.2)
Age (years)				
13 years or younger	29 (0.2)	3 (1.0)	4 (0.3)	9 (2.1)
14 years	1,154 (9.2)	41 (12.6)	131 (10.5)	53 (12.3)
15 years	2,827 (22.6)	74 (22.9)	286 (22.9)	93 (21.5)
16 years	3,242 (25.9)	77 (24.0)	379 (30.3)	96 (22.3)
17 years	3,301 (26.4)	68 (21.2)	305 (24.4)	100 (23.3)
18 years or older	1,947 (15.6)	59 (18.3)	146 (11.7)	80 (18.5)
Ever got into a physical fight				
Yes	3,103 (26.0)	80 (26.7)	360 (30.0)	110 (26.6)
No	8,825 (74.0)	220 (73.3)	837 (70.0)	304 (73.4)
Had sexual intercourse with four or more persons				
Yes	1,374 (11.5)	41 (14.2)	186 (15.7)	53 (14.4)
No	10,549 (88.5)	246 (85.8)	1001 (84.3)	314 (85.6)
Ever used an illicit substance				
Yes	1,881 (17.1)	58 (22.3)	361 (33.3)	108 (29.9)
No	9,143 (82.9)	203 (77.7)	724 (66.7)	253 (70.1)
Currently binge drinking				
Yes	1,948 (16.8)	56 (18.4)	233 (20.0)	64 (15.9)
No	9,667 (83.2)	247 (81.6)	930 (80.0)	336 (84.1)
Had symptoms of depression				
Yes	3,888 (31.1)	190 (59.4)	866 (69.3)	233 (53.8)
No	8,611 (68.9)	130 (40.6)	383 (30.7)	200 (46.2)
Past year suicidal ideation				
Yes	1,817 (14.6)	140 (43.4)	636 (51.2)	155 (35.7)
No	10,665 (85.4)	182 (56.6)	605 (48.8)	280 (64.3)
Ever been bullied				
Yes	2,817 (22.5)	128 (40.3)	531 (42.7)	170 (39.1)
No	9,689 (77.5)	190 (59.7)	713 (57.3)	265 (60.9)

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