Factors Related to Justice System Involvement and Resilience Among Sexual and Gender Minority Students and Street-Involved Youth

by

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M.A., Simon Fraser University, 2018
B.A. (Hons.), University of British Columbia, 2015

Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Philosophy

in the
Department of Psychology
Faculty of Arts and Social Sciences

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SIMON FRASER UNIVERSITY
Summer 2023

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Abstract

Sexual and gender minority (SGM) youth—such as lesbian, gay, bisexual, transgender, and nonbinary youth—experience disproportionate rates of common risk factors for offending including school problems, peer rejection, victimization, family discord, housing instability, and substance use compared to heterosexual, cisgender youth. Some SGM youth (e.g., sexual minority girls, transgender youth) are also overrepresented in the legal system. However, little is known about the relationship between risk factors and justice system involvement among SGM youth. In addition, it is unclear whether common protective factors (e.g., school connectedness, supportive caregivers) are associated with lower rates of justice system involvement in this population. This dissertation combines two studies to test whether empirically supported risk and protective factors are generalizable to SGM youth. Study 1 uses a sample of 36,990 elementary, middle, and high school students aged 12 to 19 years old to assess whether rates of risk and protective factors, rates of justice system involvement, and associations between these variables are similar across sexual orientation and gender. Since housing instability is considered a critical link in SGM youth's pathways into the justice system, Study 2 examines similar questions in a sample of 661 unhoused and street-involved youth. To determine the extent to which differential justice system involvement can be attributed to biased legal responses, it also assesses whether SGM youth report higher rates of punitive legal outcomes than non-SGM youth while holding rates of self-reported illegal behaviour constant. Collectively, these two studies increase our understanding of risk and resilience among SGM youth. Findings are relevant to clinicians, policy makers, and legal professionals who are committed to ensuring that assessment and intervention strategies are fair, effective, and sensitive to the needs of this population.

Keywords: 2SLGBTQ+ youth; unhoused youth; adolescent risk assessment; illegal behaviour; systemic biases

Dedication

This dissertation is dedicated to the 2SLGBTQ+ researchers, activists, and allies who came before me. Thank you for giving voice to queer communities and working toward a fairer and more inclusive society. It is also dedicated to future generations of 2SLGBTQ+ youth. May your resilience, wisdom, and creativity pave the way for a world where each of us can be embraced for who we are and exist without harmful and unjust barriers.

"I'm not missing a minute of this. It's the revolution!"
– Sylvia Rivera

Acknowledgements

First and foremost, I would like to acknowledge Dr. Jodi Viljoen, who was my academic supervisor until her tragic passing in June 2022. Jodi provided tremendous support to me over the past six years and facilitated my professional and personal growth in countless ways. She was a remarkable role model, not only in the quality of her research but also in her dedication to inclusivity and compassion for others. She promoted thoughtful discussions about systemic oppression within our lab and encouraged me to pursue my clinical and research interests in this area. She was a large part of the reason I chose to study at SFU, and I am honoured to have received her guidance.

I would also like to thank my family, Pam, Owen, and Levi Jonnson. The three of them have been a constant source of comfort, joy, inspiration, and support. They helped me take another step during times I thought I couldn't, and they gave me exactly what I needed whether I was feeling stressed, disappointed, scared, proud, or excited. I appreciate them more than words can say.

I am also grateful for my incredible partner, Kaitlyn Emslie Farrell. She has always believed in me and encouraged me to pursue what makes me happy. She also inspires me with her own creativity and courage. I am so fortunate to have her in my life, and I appreciate all the times that she (and our feline dependents, Rumi and Norman) reminded me to relax and have fun along the way.

I would also like to thank my current supervisor, Dr. Stephen Hart, and my committee members, Dr. Elizabeth Saewyc and Dr. David Cox, for their helpful suggestions and feedback throughout this project. I am particularly grateful to the McCreary Centre Society for collaborating with me and providing such a rich dataset that enabled me to explore these complex questions. It was valuable to meet and learn from the many talented and passionate people in this organization.

Finally, I am thankful to the 2SLGBTQ+ young people who provided consultation for this project. Your ideas and insight helped shape the way these findings will be understood and used by others to improve circumstances for 2SLGBTQ+ youth.

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List of Acronyms

2SLGBTQ+	Umbrella term that includes all nonheterosexual and noncisgender people
BC	British Columbia
LGB+	Lesbian, gay, bisexual, and other nonheterosexual orientations
SCS	School Connectedness Scale
SFU	Simon Fraser University
SGM	Sexual and gender minority
TGNC	Transgender and gender nonconforming

Glossary

Asexual	No (or low) sexual attraction to people of any gender
Aromantic	No (or low) romantic attraction to people of any gender
Bisexual	Describes attraction to more than one gender not necessarily at the same time, in the same way, or to the same degree
Cisgender	A gender identity that is consistent with one's sex assigned at birth
Demisexual	Describes someone whose sexual attraction does not develop until they feel romantically or emotionally close to another person
Gay	Describes someone who is primarily attracted to those of the same gender or someone who is not heterosexual
Gender identity	A person's intuitive understanding of their gender
Gender nonconforming	An umbrella term for gender identities that are not captured by the singular categories of man or woman
Heterosexual/Straight	Describes a woman who is primarily romantically or sexually attracted to men or a man who is primarily romantically or sexually attracted to women; can be used interchangeably with 'straight'
Lesbian	Describes a women who is primarily romantically or sexually attracted to other women.
Nonbinary	Another umbrella term for gender identities that are not captured by the singular categories of man or woman
Pansexual	Attraction to people regardless of gender
Queer	A reclaimed umbrella term used by some sexual and gender minority people to describe a diverse range of sexual orientations and gender identities
Questioning	Describes someone who is exploring their gender and/or sexual orientation
Sexual orientation	Describes the gender(s) of the people one is romantically or sexually attracted to, the gender(s) of the people one engages in romantic or sexual behaviours with, and the way one understands the sexual and romantic aspects of themselves
Transgender/Trans	An umbrella term for gender identities that differ from one's sex assigned at birth
Two Spirit	A term used by some Indigenous communities to describe people with diverse gender identities, gender expressions, gender roles, and sexual orientations

Chapter 1.

Introduction

Although societal awareness and acceptance of sexual and gender minority (SGM) people has improved over the past three decades, homophobic and transphobic attitudes remain prevalent (American Psychological Association, 2012, 2015; Organisation for Economic Co-operation and Development, 2019). Sexual minorities have nonheterosexual attractions, behaviours, or identities (e.g., lesbian, gay, bisexual), whereas gender minorities have a gender identity that differs from their sex assigned at birth (e.g., transgender, nonbinary). Compared to adults (4.5%), adolescents (9.5%) are over twice as likely to identify as lesbian, gay, bisexual, or transgender (Conron, 2020; Conron & Goldberg, 2020). Considering the historical and ongoing marginalization of SGM people, it is not surprising that SGM youth experience disproportionate rates of school problems, peer rejection, victimization, family discord, housing instability, and substance use issues compared to heterosexual, cisgender youth (Birkett et al., 2014; Conover-Williams, 2014; Eisenberg et al., 2017; Majd et al., 2009; Peter et al., 2016; Reisner et al., 2015; Rice et al., 2015; Toomey & Russell, 2016). These disparities are thought to account, in part, for the overrepresentation of some SGM youth (e.g., sexual minority girls, transgender youth) in the justice system (Irvine & Canfield, 2016; Jonnson et al., 2019). Although these risk factors have been linked to offending and justice system involvement in adolescents generally, limited research has tested the generalizability of these factors across sexual orientation and gender identity.

Despite facing greater adversity compared to non-SGM youth, most SGM youth experience positive development and do not engage in violence or end up in the justice system (Conover-Williams, 2014; Poteat et al., 2016; Saewyc, 2011). In addition, most SGM youth report having supportive caregivers and feeling connected to their schools (Eisenberg et al., 2017; Saewyc, 2011). Since these factors are associated with a reduced risk for many adverse health outcomes including mental health challenges, suicidality, and victimization among SGM and non-SGM youth (Peter et al., 2016; Russell & Fish, 2016), they may also promote prosocial behaviour and reduce justice system involvement. Although researchers have found these factors to be protective in

aggregate samples of youth (Jolliffe et al., 2016; Shlafer et al., 2013), they have not investigated whether these factors correlate with reduced justice system involvement in SGM youth specifically.

1.1. Pathways into the justice system

Some criminological theories, such as social development theory (Catalano & Hawkins, 1996; Hawkins et al., 2007), propose that people's pathways into crime are shaped by their differential life experiences. Since SGM youth tend to experience different opportunities and constraints compared to non-SGM youth, it makes sense that they might have unique pathways into the justice system. The minority stress model (Meyer, 2003) is the predominant framework for explaining why SGM people, as a group, experience higher rates of adverse outcomes compared to non-SGM people. Specifically, it explains that minority group membership exposes people to an increased risk for stigmatization, discrimination, and victimization, which in turn increases their risk for experiencing physical, mental, and behavioural health problems (e.g., depression, substance use; Lee et al., 2016). Two major perspectives have been derived from the minority stress model to explain SGM youths' pathways into the justice system: the differential behaviour perspective and the differential processing perspective (Piquero, 2008; Poteat et al., 2016).

According to the differential behaviour perspective, SGM youth engage in more criminalized behaviour than non-SGM youth, which leads to greater involvement in the justice system (Piquero, 2008; Poteat et al., 2016). Higher crime rates may be influenced by several of the risk factors mentioned above. For example, peer victimization may make SGM youth more likely to skip school or retaliate against bullies, leading to disciplinary sanctions (Majd et al., 2009; Poteat et al., 2016). Likewise, minority stress may increase SGM youths' likelihood of substance use, which is a well-established risk factor for offending and is itself illegal if youth are under the age of majority in their jurisdiction. Regardless of the factors underlying illegal behaviour, the differential behaviour perspective posits that SGM youth accrue more charges and convictions than non-SGM youth due to higher rates of illegal behaviour.

Conversely, the differential processing perspective proposes that the reason for SGM youth's overrepresentation lies not in their behaviour, but in school and justice

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system responses to that behaviour (Piquero, 2008; Poteat et al., 2016). From this standpoint, SGM youth engage in the same amount of crime as non-SGM youth, but SGM youth are more likely to be caught or more harshly prosecuted when they are caught. Reasons for stricter surveillance and punishment might relate to conscious or unconscious biases toward youth who do not conform to traditional ideas about gender and sexual orientation (Buist & Stone, 2014; Wilson et al., 2017). Notably, discrepant processing may begin at the stage of policing, as this is usually the first contact youth have with the justice system. Indeed, interviews with SGM youth reveal a widespread fear of police and high self-reported rates of police discrimination (McCandless, 2018). Similarly, quantitative research shows that sexual minority status predicts a range of legal sanctions from arrest to incarceration, even after controlling for transgressive behaviours and other potential confounds (e.g., race/ethnicity, dichotomous gender, age, socioeconomic status; Himmelstein & Brückner, 2011; Poteat et al., 2016).

Only two studies have directly tested the differential processing and differential behaviour perspectives against one another (Palmer & Greytak, 2017; Poteat et al., 2016). One found stronger support for the differential processing model (Poteat et al., 2016), whereas the other found support for both models by showing that disciplinary outcomes for SGM youth were influenced by both students' and professionals' behaviours (Palmer & Greytak, 2017). Although these studies provide a useful starting point for understanding SGM youth's pathways into the justice system, both involved samples of high-school students and both conducted their analyses at an aggregate level only (i.e., with all SGM youth grouped together). As such, more research is needed to determine whether findings are consistent in samples of youth who are already at risk for justice system involvement, such as street-entrenched youth, and to assess whether patterns are consistent across distinct subgroups of SGM youth (e.g., sexual minority cisgender girls, sexual minority cisgender boys, sexual minority transgender youth, straight transgender youth).

1.2. Risk assessment practices

Risk assessments are commonly used to guide formal decisions about youth in the justice system (Singh, Desmarais, Hurducas, et al., 2014; Starr, 2014; Wachter, 2015). For instance, consistent with the risk-need-responsivity (RNR) model, youth who are judged to pose a high risk for violence may be assigned more severe penalties (e.g.,

incarceration) and ordered to attend more intensive programs (e.g., fulltime attendance programs) than those judged to be low risk. Although there are several methods for conducting risk assessments, all approaches involve a consideration of factors that have been empirically linked to an increased or decreased risk for offending (i.e., risk and protective factors). To the extent that risk assessments are intended to influence risk management strategies, it is important that these assessments are accurate and fair. However, concerns have been raised about whether risk and protective factors are universal or whether they operate differently in minority and non-minority groups due to factors associated with social stratification and socialization patterns (Conover-Williams, 2014; Shepherd et al., 2013).

Since early risk assessment research was based largely on the offending patterns of White males (Shepherd et al., 2013), researchers have begun testing whether correlates of crime are similar across sex and ethnicity. However, findings are mixed. Some studies suggest that risk assessment tools (i.e., tools that facilitate an overall evaluation of risk based on a designated set of risk factors) have similar predictive validity across sex and ethnicity (e.g., Olver et al., 2012; Olver et al., 2014), whereas others report inferior predictions for female compared to male youth (e.g., Jones et al., 2016) and for racial and ethnic minority compared to White youth (e.g., Shepherd et al., 2014; Shepherd et al., 2015). Although research on the applicability of risk and protective factors to female and ethnic minority youth remains limited, even less is known about the generalizability of these factors to SGM youth.

1.3. Intersectionality

In light of the need for more nuanced research on health and risk behaviours among SGM youth, researchers are increasingly attending to intersectionality (Cyrus, 2017; Meyer, 2010; Mountz, 2020; Zaw et al., 2016). Intersectionality refers to the idea that people who belong to more than one minority group often experience multiple forms of discrimination at the same time (Crenshaw, 1989, 1991). For instance, transgender sexual minorities tend to experience more discrimination and victimization compared to cisgender sexual minorities because they are vulnerable to homophobia and transphobia simultaneously (i.e., multiply marginalized; Cyrus, 2017). This compounding minority stress helps explain why multiply marginalized people experience, on average, higher rates of adverse outcomes compared to those who belong to only one minority group

(Krieger et al., 2008; Mereish & Bradford, 2014). Unfortunately, most studies on youth offending and justice system involvement have examined sexual orientation, gender, and other important aspects of identity (e.g., race and ethnicity) independent of one another.

Although there is a general dearth of intersectional studies in this area, there are a few exceptions. For instance, Kann et al. (2016) found that, whereas rates of being in a physical fight are almost twice as high among sexual minority (27.6%) compared to heterosexual girls (15.5%), rates are comparable among sexual minority (28.8%) and heterosexual boys (29.9%). Similarly, Jonnson et al. (2019) found that sexual minority girls are almost twice as prevalent in the justice system (30.6%) than in the general population (15.5%), whereas sexual minority boys are comparably represented across justice system samples (5.6%) and general community samples (6.9%). In terms of victimization, Walls et al. (2019) found that, compared to heterosexual cisgender youth, most SGM groups are more likely to report being physically hurt by a dating partner, with the highest rates reported by transgender sexual minorities. These findings illustrate the importance of considering the experiences of youth at the cross-section of sexual orientation and gender identity.

1.4. Protective factors

The differential behaviour and differential processing perspectives focus on factors that increase youth's risk for justice system involvement. However, it is also important to consider variables that might reduce their risk (i.e., protective factors). Broadly speaking, risk factors are associated with an increased risk for offending and justice system involvement, whereas protective factors are associated with a decreased risk. However, definitions of protective factors vary, and there is disagreement about whether risk and protective factors represent two sides of the same coin (e.g., high vs. low school commitment) or whether they have distinct associations with justice system involvement (for a detailed discussion of protective factors see Lösel & Farrington [2012] or Zimmerman et al. [2013]). For the purposes of this dissertation, protective factors are defined as those associated in past research with a reduced risk for justice system involvement, regardless of whether risk factors are present (i.e., direct protective factors).

According to positive youth development theory, most interventions to improve outcomes for youth focus too heavily on deficits rather than strengths (Benson et al., 2006). In contrast to deficit-based perspectives, this theory highlights the importance of supportive relationships, schools, and communities in reducing high-risk behaviours and promoting well-being in youth. Research generally supports this theory. For instance, strong bonds with caregivers, close relationships with prosocial peers, and positive classroom climates are each associated with nonviolence in adolescents (Lösel & Farrington, 2012). Despite the growing literature on protective factors, research on violence risk and legal system involvement has largely ignored how such factors might apply to SGM youth. However, since these factors are negatively associated with experiences of harassment, victimization, and mental health challenges among SGM youth (Eisenberg et al., 2017; Russell & Fish, 2016; Saewyc, 2011), they may also be negatively associated with offending and legal system involvement.

Notably, some of the factors thought to drive desistance from crime appear to differ across gender. For example, protective factors may be more influential in reducing violence perpetration for girls than boys because girls tend to experience less social pressure and reinforcement related to acting aggressively (Benson et al., 2006). In addition, housing stability may be particularly important for women and girls to the extent that it protects them from experiencing gender-based violence (e.g., sexual assault), and the role of relationships may be more complicated for women than men given the power dynamics that can occur within these relationships (Barr, 2019). Furthermore, given that transgender sexual minority youth, as a group, experience higher rates of victimization than other SGM youth (Walls et al., 2019), the presence of a supportive adult or positive school climate may be especially important to buffer the stress they experience in other areas of their life. These scholarly arguments further highlight the need for an intersectional lens that considers how certain risk and protective factors might operate differently across sexual orientation and gender. Unfortunately, limited research has tested these associations.

Although several negative correlates of minority stress are well-established (Meyer & Frost, 2012), minority group membership may also be also associated with positive experiences such as stress-related growth and resilience (Meyer, 2015; Lytle et al., 2014; Vaughan & Rodriguez, 2014). Stress-related growth occurs when people develop better social resources (e.g., stronger relationships), personal resources (e.g.,

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higher self-concept) and coping skills (e.g., improved problem-solving skills) as a result of experiencing stressful circumstances (Park et al., 1996). The implications of stress-related growth on justice system involvement are currently unclear.

1.5. The current work

This dissertation is comprised of two studies designed to help address the research gaps highlighted above. Study 1 examines whether risk and protective factors for justice system involvement generalize to SGM youth. Specifically, it uses a large sample of elementary, middle, and high school students in British Columbia (BC) to assess whether self-reported rates of risk factors, protective factors, and incarceration are similar across sexual orientation and gender identity. It also examines relationships between these variables to assess whether certain risk and protective factors are differentially associated to justice system involvement for SGM versus non-SGM youth. By including gender minority youth, exploring patterns across subgroups of sexual minority youth, and testing interactions between sexual orientation and gender identity, this study provides a more detailed examination of risk and protective factors for SGM youth than has previously been conducted.

Study 2 complements Study 1 in several ways. First, it uses a sample of unhoused and street-involved youth in BC, which is important because SGM youth are overrepresented among unhoused populations (Irvine & Canfield, 2016; Majd et al., 2009), and housing instability is considered a critical link in SGM youth's pathways into the justice system (Irvine & Canfield, 2016; Jonnson et al., 2019; Mountz, 2020). As such, Study 2 will help uncover whether SGM status correlates with justice system involvement among youth who are experiencing housing instability. It will also assess whether rates of risk and protective factors are similar across street-involved SGM and non-SGM youth. Second, whereas Study 1 measures only one form of justice system involvement (i.e., custody stays), Study 2 also measures self-reported rates of arrests and convictions. Finally, Study 2 measures illegal behaviours (e.g., violence perpetration and weapon carrying) in addition to justice system involvement, which allows for an examination of the differential processing perspective. Specifically, it enables a test of whether rates of justice system involvement are higher among SGM than non-SGM youth while holding illegal behaviour constant. Collectively, these two studies increase our understanding of factors associated with justice system involvement among SGM

youth. Findings are pertinent to informing intervention and prevention strategies aimed at reducing justice system involvement and improving outcomes for SGM youth.

Chapter 2.

Study 1: Risk and Protective Factors Related to Justice System Involvement Among Sexual and Gender Minority Students

Growing evidence indicates that incarceration has a negative impact on adolescents in areas such as education, employment, and psychosocial development. For instance, youth who have been incarcerated demonstrate higher subsequent rates of academic difficulties, mood disorders, substance use problems, unemployment, victimization, and recidivism compared to those who have not been incarcerated (Aizer & Doyle, 2015; Barnert et al., 2016; Basto-Pereira et al., 2018; Gilman et al., 2015; Jung, 2015; Sedlak et al., 2013; Walker & Herting, 2020). Although these findings suggest that custodial sentences should be curtailed for youth generally, certain groups appear to be at a higher risk for justice system involvement than others. Rates of lesbian and bisexual girls, for example, are twice as high in custodial samples (30.0%) compared to community samples (15.5%; Jonnson et al., 2019). Preliminary studies suggest that gender minority youth may also be overrepresented in the justice system compared to cisgender youth (Hirschtritt et al., 2018; Irvine & Canfield, 2016), although the magnitude of this overrepresentation is unknown. In custody, SGM people experience higher rates of physical and sexual victimization by staff and other inmates compared to non-SGM people (Beck et al., 2013; Grant et al., 2011). Given the negative implications of custody for youth, and for SGM subgroups in particular, it is important to identify factors that might protect them from justice system involvement. Further, given the disproportionate rates of incarceration experienced by SGM youth, it is important to examine whether patterns of risk and protective factors differ across sexual orientation and gender.

Several studies have proposed that SGM youth are disproportionately funnelled into the justice system through what is termed the "school-to-prison pipeline." This term encapsulates the idea that youth who experience punitive disciplinary sanctions at school are more likely to become involved in the justice system (Hemez et al., 2020). For example, research has found that youth who have been suspended or expelled are up to 3.8 times more likely than those who have not experienced these school exclusionary practices to be arrested, convicted, or incarcerated in the subsequent one to five years

(Fabelo et al., 2011; Rosenbaum, 2020; Welsh & Little, 2018). Sexual minority students appear more likely than heterosexual students to experience suspensions and justice system involvement (Poteat et al., 2016).

Whereas punitive school environments appear to increase risk for justice system involvement for SGM youth, supportive school environments might play a protective role. A study of incarcerated youth in the United States found that positive attitudes toward school were inversely related to illegal behaviour (Tan et al., 2018). Other studies highlight that school disengagement and chronic absenteeism are associated with a substantial increase in risk for justice system involvement (Henry et al., 2012; Robertson & Walker, 2018; Rocque et al., 2017). However, research has not examined whether school attendance or positive school experiences serve as a deterrent against crime for SGM youth. Although many SGM youth report positive attitudes towards school and strong relationships with teachers, on average they experience higher rates of school problems than non-SGM youth (Birkett et al., 2014; Conover-Williams, 2014; Eisenberg et al., 2017). One reason for this discrepancy may be that school can be a hostile environment for SGM youth, making it difficult for them to participate and succeed. Indeed, over a third of SGM youth (34.8%) report missing school due to feeling unsafe (Kosciw et al., 2018), and victimization at school appears to mediate the relationship between sexual orientation and academic engagement (Birkett et al., 2014). Biased responses from school authorities (Himmelstein & Brückner, 2011; Kosciw et al., 2018; Palmer & Greytak, 2017; Poteat et al., 2016) may also fuel aversive feelings towards school. As such, the protective effects of attending school may be limited if SGM youth feel unsafe and unsupported while there.

One factor related to school adjustment is a youth's relationships with peers. SGM youth, as a group, experience higher rates of social alienation and bullying than non-SGM youth (Eisenberg et al., 2017; Rice et al., 2015; Toomey & Russell, 2016), as well as lower levels of peer support (Ross-Reed et al., 2019). Studies indicate that bias-based harassment (e.g., transphobic slurs) may be particularly harmful to youth's well-being (Russell et al., 2012; Sinclair et al., 2012). In addition, peer victimization has been linked to higher rates of justice system involvement, including arrest and detention, among sexual minority students (Palmer & Greytak, 2017). However, research has not yet tested whether SGM youth who have experienced social exclusion or discrimination have a higher risk for justice system involvement than those who have positive

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relationships with peers. Clarifying these relationships may provide important avenues for intervention, particularly for SGM youth.

Youth's home environment and relationships with adults can also play a role in their risk for justice system involvement. Indeed, supportive relationships with adult caregivers and mentors appear to promote positive attitudes towards school and buffer against a range of adverse outcomes including violence perpetration, substance abuse, and mental health issues (Zimmerman et al., 2013). Conversely, a lack of caregiver support is associated with a higher risk for illegal and non-illegal behaviour problems (Hoeve et al., 2009), which may in turn increase risk for justice system involvement. Although many SGM youth report close relationships with their caregivers, they report significantly less family support than their peers (Conover-Williams, 2014; Eisenberg et al., 2017; Ross-Reed et al., 2019). SGM youth are also more likely than non-SGM youth to be kicked out or run away from home, often due to caregivers' rejection of their sexual orientation or gender identity (Berberet, 2006; Conover-Williams, 2014; Majd et al., 2009). Housing instability is considered an important pathway into the justice system for SGM youth (Irvine & Canfield, 2016; Jonnson et al., 2019; Mountz, 2020), although this association has not yet been systematically tested.

Community- and relationship-level factors often interact with individual-level factors to increase risk for legal issues. Substance use problems were theoretically linked to antisocial behaviours over three decades ago by the problem behaviour theory (Jessor, 1987), which posits that engagement in one problematic behaviour often leads to engagement in another. This theory has since received empirical support, with studies showing elevated rates of antisocial behaviour among youth who experience substance use problems and vice versa (Mobley & Chun, 2013; Reingle et al., 2012; Salas-Wright et al., 2016). Some authors have proposed that substance use moderates criminogenic risk factors and justice system outcomes such as arrest (Caudy et al., 2015). Regardless of the nature of this association, justice-involved youth demonstrate a high need for substance use treatment (Barnert et al., 2016; Yeterian et al., 2013), including justice-involved SGM youth (Belknap et al., 2014; Hirschtritt et al., 2018).

A final factor to consider is childhood maltreatment. Rates of abuse and neglect are higher among youth in the justice system than those in general community samples (Robertson & Walker, 2018). One explanation for this association is provided by the

general strain theory (Agnew, 2009), which suggests that aversive life events can lead to negative emotions and poor coping strategies, which in turn can increase the likelihood of adverse outcomes such as illegal behaviour and justice system involvement. Children who have safe and supportive upbringings, on the other hand, may be less likely to develop maladaptive coping strategies (Robertson & Walker, 2018). Previous research has found higher rates of childhood abuse and trauma among SGM youth than non-SGM youth (Conover-Williams, 2014; Schneeberger et al., 2014), and this disparity appears even wider for SGM youth of colour (Yun et al., 2021). Some research suggests that childhood trauma and bisexual identity are each associated with an increased risk for adult incarceration (Yun et al., 2021). However, the relationship between past abuse and justice system involvement among SGM youth remains somewhat unclear.

In sum, research has identified several factors that might increase or decrease youths' risk for justice system involvement. However, the extent to which these factors are generalizable to SGM youth is unclear. Therefore, to build upon existing research, this study explores which factors differentiate youth who have a history of incarceration from those who do not and further assesses whether these associations are similar for SGM and non-SGM youth.

2.1. Study objectives

This study extends prior research by testing 1) whether rates of custody stays are similar across sexual orientation and gender identity, 2) whether rates of risk and protective factors (supportive adult, school connectedness, social exclusion, violent victimization, housing instability, problematic substance abuse, and past abuse) are similar across sexual orientation and gender identity, and 3) whether associations between each risk/protective factor and history of custody are consistent across sexual orientation and gender identity. Since bias-based harassment has been identified as more harmful to SGM youth than other forms of harassment (Russell et al., 2012; Sinclair et al., 2012), I also tested associations between discrimination and history of custody across groups. Finally, I examined associations between cumulative risk (i.e., total number of risk factors experienced) and history of custody across groups.

Based on literature documenting higher rates of adverse experiences among minority youth, I hypothesized that SGM youth would report higher rates of risk factors

and lower rates of protective factors than non-SGM youth. I anticipated that these differences would be exacerbated among youth who are multiply marginalized (e.g., youth who identify as a sexual and gender minority). However, given the extremely limited extant research on SGM youth in the justice system, it was difficult to predict whether associations between these factors and history of custody would differ across groups. On one hand, factors involved in stress-related growth may weaken positive associations between risk factors and justice system involvement for SGM youth. Conversely, the compounding effects of ongoing minority stress may strengthen positive associations between risk factors and justice system involvement for SGM youth. Although Conover-Williams (2014) found no evidence that sexual minority status moderated associations between risk factors and offending, research with racial and ethnic minorities suggest that some risk factors may have an attenuated effect in minority groups (Shepherd et al., 2014; Shepherd et al., 2015). Hence, similar patterns may emerge among SGM youth.

2.2. Methods

2.2.1. Procedure

I analyzed data from the 2018 administration of the BC Adolescent Health Survey, which is a cross-sectional, cluster-stratified survey of youth aged 12 to 19 years from elementary, middle, and high schools across BC (Smith et al., 2019). Developed by the McCreary Centre Society, this survey has been administered every five to six years since 1992. The survey includes 140 items related to risky behaviours, protective factors, and health outcomes, and it underwent extensive pilot-testing prior to each wave. Its development was informed by other large-scale youth health surveys such as the National Longitudinal Study of Adolescent Health (Harris et al., 2009) and the National Longitudinal Survey of Children and Youth (Statistics Canada, 2010).

Administration of the 2018 survey was approved by the Research Ethics Board of the University of BC, as well as relevant school representatives. Participation requirements differed across school districts. Most districts (67.0%) required parental consent and student assent, while the remainder required parental notification and student consent (33.0%; Smith et al., 2019). The paper-and-pencil survey was administered by Public Health Nurses and Public Health Resource Nurses. Participants

were assured that their responses would remain anonymous and confidential. The survey took approximately 45 minutes to complete.

Consultation

Prior to developing each version of this survey, the McCreary Centre Society consulted with young people, parents, teachers, and other community members. Given the importance of involving community stakeholders throughout the research process (Institute of Medicine, 2011; Ochocka & Janzen, 2014), I also recruited four SGM consultants to assist with data interpretation and knowledge dissemination planning. Consultation occurred after I ran the analyses, but before I finished interpreting the results. I recruited consultants through a virtual newsletter distributed by Out on Campus—a department at Simon Fraser University (SFU) that serves 2SLGBTQ+ students—and through the McCreary Centre Society's Youth Research Academy. I informed consultants about the purpose of the meeting and clarified their role as consultants rather than research participants. During the 1.5-hour virtual meeting, I presented results from my analyses, explored consultants' perspectives of the findings, and generated ideas for policy and practice recommendations. Consultants' feedback shaped how the findings were interpreted and meaningfully informed the discussion sections of this dissertation. Each consultant received a $40 honorarium in recognition of their valuable role in co-creating the knowledge arising from this study. Consultants were between 22 and 27 years old. All identified as a sexual and/or gender minority, and some had lived experience of precarious housing and/or justice system involvement.

2.2.2. Sample

Overall, 38,015 students completed the survey. Almost all of the school districts in BC participated (96.7%; 58 of 60). Nine-hundred and forty-nine students did not respond to the question about gender identity (n = 193), sexual orientation (n = 611), or both (n = 145). A further 76 students provided a qualitative response to the sexual orientation question that indicated that they either did not understand the question (e.g., "I don't know what this means") or did not take the question seriously (e.g., "attack helicopter"). A chi-square test was run to determine whether these 1025 incomplete cases were dependent on the main outcome variable, history of custody. Differences between the incomplete and complete cases were not significant, $\chi^2(1) = .300$, p = .606.

Since the incomplete cases constituted only 2.7% of the original sample, and missingness on these variables was not related to participants' history of custody, these cases were removed. This decision is consistent with recommendations for handling missing data in similar types of health survey datasets (Center for Behavioral Health Statistics and Quality, 2018). The final sample included 36,990 students.

Students ranged in age from 12 to 19 years old. Almost half (45.9%) identified their ethnic background as European, 18.0% as East Asian, 11.2% as South Asian, 8.8% as Indigenous, 8.2% as Southeast Asian, 5.0% as Latin/South/Central American, 2.8% as West Asian, 2.7% as African, and 1.9% as Australian/Pacific Islander. A further 3.5% identified as having another background, and 9.7% did not know their background. Respondents could select multiple backgrounds. Overall, 17.9% of this sample identified as a sexual or gender minority (including those who were 'unsure' or 'mostly straight'). Regarding gender identity, 48.4% of the sample identified as cisgender boys, 49.0% as cisgender girls, 0.4% as transgender boys, 0.1% as transgender girls, 0.8% as non-binary, and 1.3% as unsure. Regarding sexual orientation, 82.8% of students identified as completely straight, 5.5% as mostly straight, 5.8% as bisexual/pansexual/queer, 1.2% as gay/lesbian, 0.3% as asexual/demisexual, and 4.4% as unsure. The rest (0.2%) selected multiple categories (e.g., asexual and heterosexual; see Table 1).

Table 1.   Sexual orientation of Study 1 sample by gender

| | Gender Identity | | | | | |
| | Cisgender boys | | Cisgender girls | | TGNC youth | |
Sexual Orientation	**n**	**%**	**n**	**%**	**n**	**%**
Straight	16,234	90.6%	14,119	78.0%	165	18.4%
Mostly straight	613	3.4%	1,338	7.3%	69	7.8%
Bisexual, pansexual, or queer	357	1.9%	1,466	8.0%	338	39.3%
Gay or lesbian	173	1.0%	168	0.9%	100	10.1%
Asexual or demisexual	22	0.1%	63	0.3%	30	3.4%
Unsure	499	2.9%	935	5.2%	171	18.7%
Multiple categories	13	0.1%	45	0.2%	22	2.1%

Note. Percentages reflect the valid percentage of each sexual orientation within each gender identity. TGNC = transgender or gender nonconforming.

2.2.3. Measures

All variables were based on participants' self-report at the time of survey administration. Participants responded to questions about their demographics, risk and protective factors, and justice system involvement, as described below.

Demographics

Family background included 12 response options (Indigenous, European, African, Latin/South/Central American, Southeast Asian, East Asian, Caribbean, West Asian, South Asian, Australian/Pacific Islander, "other," and "I don't know"). Youth could select multiple backgrounds.

Sexual orientation was assessed using a multiple-choice question with the following response options: completely straight, mostly straight, bisexual, gay or lesbian, questioning, not sure yet, or something other than the options listed. Consistent with recommendations for increasing the identification of SGM youth (Hirschtritt et al., 2018; Saewyc et al., 2004), those who selected something else were able to describe their orientation in their own words. The most common labels provided were asexual and pansexual. Given the relatively small number of written responses, these responses were hand-coded into conceptually similar categories (e.g., pansexual, mostly straight, and queer youth were included with bisexual youth; asexual and demisexual youth were combined into a new category). Although 'queer' is an umbrella term that can include multiple gender identities (e.g., transgender, nonbinary) and sexual orientations (e.g., bisexual, asexual, gay, lesbian), youth who identified their sexual orientation as queer were included with those identifying as bisexual and pansexual since it was considered a broader, often more fluid label than gay or lesbian. Finally, to maximize statistical power for inferential analyses, an aggregate variable was created with three categories: straight, LGB+ (lesbian, gay, bisexual, and any other orientation except "completely straight" or "unsure"), and unsure.

To assess gender identity, participants were asked to report the sex on their birth certificate (male or female), as well as their current gender identity (male, female, neither, or unsure), which is consistent with current recommendations for measuring gender identity (The Williams Institute, 2019). Participants whose gender identity differed from their sex assigned at birth, who identified as neither male nor female, or who were

unsure about their gender identity were categorized as transgender and gender nonconforming (TGNC) youth. TGNC youth were analyzed collectively since there were insufficient numbers of transgender boys, transgender girls, and nonbinary youth with custody involvement to analyse them separately.

History of custody

To capture history of custody, youth reported whether they were "staying in a custody centre currently," had "stayed in a custody centre in the past year," or had "stayed in a custody centre over a year ago." The question wording did not distinguish between pre- versus post-adjudication placements. These responses were combined into a dichotomous variable representing youth who had ever stayed in a custody centre and youth who had not. Although much of the existing risk assessment research relies on official records of charges and convictions, evidence suggests that official and self-report records are largely consistent (Piquero et al., 2014).

Risk and protective factors

Of the 140 items included in the BC Adolescent Health Survey, I identified eight variables that have been empirically linked to an increased or decreased risk for offending in past research. The operationalization of these risk and protective factors on the survey was considered sufficiently similar to the way these factors are considered in practice (e.g., on common risk assessment and risk management tools). For instance, many risk assessment tools ask evaluators to consider school achievement and commitment, relationships with peers (e.g., bullying), bonds with prosocial adults, childhood maltreatment, living circumstances, and issues with substance use when evaluating risk and planning interventions (Borum et al., 2006; de Vries Robbé et al. 2015; Hoge & Andrews, 2011; Viljoen et al., 2014). The eight variables used in the current study are described below.

First, youth completed the School Connectedness Scale (SCS), which has evinced acceptable reliability (α = .82 to .88) and concurrent validity (r = .44 to .55) with the School Supports Scale, another brief measure of school connectedness, across youth from diverse sociocltural backgrounds (Furlong et al., 2011). The SCS includes six items to assess whether youth 1) felt a part of their school, 2) were happy to be at school, 3) felt that staff treated them fairly, 4) felt that teachers cared about them, 5) felt

that other staff cared about them, and 6) felt safe at school. Responses are based on a 5-point Likert-type scale ranging from "strongly disagree" to "strongly agree". Responses to the six items are averaged such that total SCS scores can range from 1 to 5.

Second, youth reported how many times they were 1) teased, 2) socially excluded on purpose, or 3) physically attacked or assaulted in the past year. Response options included 'never', 'once', 'twice', and 'three or more times'. To increase power and maintain consistency with established risk factors, these items were recoded into two dichotomous variables: one identifying youth who had been teased or excluded and the other identifying youth who had been violently victimized.

Third, youth reported whether there was an adult they would feel comfortable talking to if they were having a serious problem. Response options included 'no', 'yes, an adult in my family', and 'yes, an adult outside my family'. The latter two responses were combined to create a dichotomous variable reflecting the presence or absence of a supportive adult.

Fourth, youth reported how many times they ran away from home in the past year, as well as how many times they were kicked out in the past year. Response options included 'never', 'one or two times', and 'three or more times'. These two items were combined into one dichotomous variable capturing youth who had experienced housing instability and those who had not.

Fifth, youth reported whether they experienced negative consequences related to their substance use (e.g., passed out, got injured, damaged property). Specifically, respondents were provided with a list of negative consequences and asked to check all that applied. Consistent with prior research (Smith et al., 2018), youth who endorsed three or more negative consequences were categorized as having problematic substance use. Those who endorsed two or fewer negative consequences were categorized as not having issues in this area.

Sixth, youth reported whether they ever experienced physical abuse, sexual abuse, or sexual coercion. Physical abuse was defined as being "physically abused or mistreated by anyone in your family or by anyone else." Sexual abuse was defined as "when anyone (including a family member) touches you in a place you did not want to be touched or does something to you (or makes you do something to them) sexually which

you did not want." Sexual coercion was defined as being "forced into sexual activity when you did not want to" by another youth or by an adult. Youth were also asked how old they and their partner were the first time they had sex, and those who reported being the younger partner in an age pairing that is illegal in Canada (i.e., more than two years apart) were identified as youth who had been sexually abused. Consistent with past research (e.g., Conover-Williams, 2014), these items were combined into a single dichotomous variable capturing past abuse.

Finally, youth reported whether they were discriminated against or treated unfairly due to any of the following factors: 1) their race, ethnicity, or skin colour, 2) their sexual orientation (e.g., being or being perceived as gay or lesbian), 3) their gender/sex, 4) a disability they have, 5) their physical appearance, 6) how much money their family has, or 7) their weight. Chi-square tests indicated that SGM youth were significantly more likely to report all types of discrimination than non-SGM youth (ps < .001; see Table 2). Odds ratios ranged from 1.39 for discrimination based on race/ethnicity to 20.50 for discrimination based on sexual orientation. These items were combined into one dichotomous variable so that comparisons could be made between youth who reported any kind of discrimination and those who reported none.

Table 2.　　Types of discrimination reported by youth in Study 1

	SGM		Non-SGM	
Discrimination based on…	_n_	%	_n_	%
Race, ethnicity, or skin colour	776	16.7%	3,692	13.2%
Sexual orientation	1,261	25.0%	530	1.8%
Gender/sex	1,209	24.3%	1,976	6.8%
Disability	404	8.0%	744	2.5%
Physical appearance	1,815	36.0%	5,955	6.9%
Money	681	13.5%	2,084	5.2%
Weight	1,401	27.7%	4,154	14.2%

Note. Percentages reflect the valid percentage of SGM or non-SGM youth who reported each type of discrimination. All differences between SGM and not SGM youth are significant at _p_ < .001. SGM = sexual and gender minority.

To estimate cumulative risk, I created a count variable based on how many risk factors youth reported. For this variable, I created a median split of cumulative risk

scores. Items were coded in a similar direction such that '1' represents higher risk (e.g., low school connectedness, social exclusion, problematic substance use) and '0' represents lower risk (e.g., high school connectedness, no social exclusion, no problematic substance use). Hence, the theoretical range for this item is 0 to 8 (seven general risk and protective factors plus one discrimination item).

2.2.4. Weights

Two school districts in BC did not participate in the study. In addition, to ensure data were representative at a regional level, more classrooms were sampled in the smaller school districts in northern BC (approximately one in three) than in the larger districts in the lower mainland (approximately one in twelve). The sample was weighted to adjust for the missing school districts and the differential probability of selection across districts. Each case was then multiplied by a scaling factor such that the sample size and distribution used in the analyses was consistent with the provincial student enrollment in 2018.

2.2.5. Data analysis

To account for the weighting procedures and cluster-stratified sampling methods, analyses were conducted using the Complex Samples module included in IBM SPSS©, Version 22 (IBM Corporation, 2013). This module produces more conservative estimates of standard errors than conventional analyses. I used a p value of .05 as the threshold for significance, and I reported standard errors and 95% confidence intervals for all prevalence estimates, as recommended by Sarndal et al. (1992).

Consistent with recommendations for conducting quantitative intersectional analyses (Bauer & Scheim, 2019), I first calculated outcome descriptives (e.g., means and standard deviations) across groups to examine the existence and magnitude of disparities. I used logistic regression to test main effects and interaction effects of gender identity (cisgender boy, cisgender girl, and TGNC youth) and sexual orientation on history of custody. Since self-reported history of custody was relatively rare across all youth, I collapsed sexual orientation into two groups (LGB+ and straight). I excluded youth who were unsure about their sexual orientation since only nine of them reported a

history of custody, which was too low to include them as a distinct subgroup without risking deductive disclosure.

Next, I conducted a series of logistic and ordinal regression models to test main effects and interaction effects of gender identity (cisgender boy, cisgender girl, and TGNC youth) and sexual orientation (straight, LGB+, and unsure) on each of the eight risk and protective factors (supportive adult, school connectedness, social exclusion, violent victimization, housing instability, problematic substance use, past abuse, and discrimination). I examined statistical interactions between predictors as a way of assessing multiplicative effects (i.e., effects that cannot be captured by simply adding separate effects such as those produced by sexism, homophobia, and transphobia; Else-Quest & Hyde, 2016).

To test whether SGM status interacts with specific risk and protective factors in predicting history of custody, I ran eight logistic regression models corresponding to each of the eight risk and protective factors outlined above. Specifically, I entered SGM status, each risk or protective factor, and the interaction term as predictors in each model. I collapsed sexual orientation and gender identity into one dichotomous variable (SGM versus non-SGM youth) for these analyses since group sizes would otherwise have been too small to elicit meaningful results. I used the dichotomous (i.e., median split) version of the school connectedness variable for these analyses. Finally, I conducted an additional logistic regression to test whether SGM status interacts with cumulative risk to predict history of custody using a dichotomous (i.e., median split) version of cumulative risk to maximize power.

Since regression tests are limited in their ability to facilitate intersectional explanations (Bauer & Scheim, 2019), I followed these tests up with disaggregated subgroup analyses (i.e., pairwise comparisons using Fisher's exact tests for proportions and independent t tests for means). I used a threshold of $p < .001$ for these analyses because multiple pairwise comparisons can increase the likelihood of committing a Type 1 error. I excluded youth who were unsure of their sexual orientation from follow-up tests to limit the number of pairwise comparisons and increase parsimony.

2.3. Results

2.3.1. History of custody

Overall, 0.9% of youth (n = 305) reported that they spent time in a custody centre (95% CI = 0.8-1.0%). SGM youth (2.4%) were 3.62 times more likely to report history of custody compared to heterosexual, cisgender youth (0.7%), $\chi^2(1)$ = 133.97, p < .001. A logistic regression revealed that the main effect of gender was significant (F = 42.84, p < .001), the main effect of sexual orientation was not significant, (F = 1.58, p = .207), and the interaction between gender and sexual orientation was significant (F = 6.94, p < .001). Post-hoc pairwise comparisons indicated that straight TGNC and LGB+ TGNC youth were more likely to report a history of custody than any other group (ps < .001; ORs ranged from 2.60 to 18.71) but did not significantly differ from each other. In addition, LGB+ cisgender girls were more likely to report a history of custody than straight cisgender girls or straight cisgender boys (ps < .001; ORs = 2.22 and 2.61, respectively). All other comparisons were non-significant. Rates of custody stays across sexual orientation and gender identity are reported in Table 3.

Table 3. **Percentage of youth who reported ever staying in a custody centre**

	Gender Identity					
	Cisgender boys		Cisgender girls		TGNC youth	
Sexual Orientation	n	%	n	%	n	%
Straight	96	0.7	100	0.7	15	11.4
LGB+	16	1.6	47	1.7	23	4.4

Note. Percentages reflect the valid percentage of youth at each intersection of sexual orientation and gender identity reporting a history of custody. LGB+ = lesbian, gay, bisexual, and any other sexual orientation that was not "completely straight" or "unsure"; TGNC = transgender and gender nonconforming.

2.3.2. Risk and protective factors

The following results pertain to the main effects and interaction effects of gender and sexual orientation on each of the eight risk and protective factors, as well as the cumulative risk variable (i.e., sum of risk factors and negatively coded protective factors).

Summary of results

Given the quantity and complexity of analyses conducted, I begin by summarizing overall patterns in the results. Consistent with expectations, logistic regression analyses revealed that SGM youth were significantly more likely to report all dichotomous risk factors and significantly less likely to report all dichotomous protective factors compared to non-SGM youth (ps < .001; Figure 1). Likewise, ordinal regressions indicated that SGM youth scored significantly lower on the school connectedness and cumulative risk variables than straight, cisgender youth (ps < .001). Rates of dichotomous risk and protective factors are reported across sexual orientation and gender identity in Table 4. Means and standards deviations for school connectedness and cumulative risk are presented across sexual orientation and gender identity in Tables 5 and 6, respectively.

Figure 1.   **Differences in rates of dichotomous risk and protective factors across SGM and non-SGM youth**
Note. All differences were statistically significant at p < .001. SGM = sexual and gender minority.

Table 4.   **Percentage of youth who reported each dichotomous risk or protective factor**

Sexual Orientation	Gender Identity					
	Cisgender boys		Cisgender girls		TGNC youth	
	n	%	*n*	%	*n*	%
Social exclusion						
Straight	6,468	41.4	8,290	59.1	77	50.2
LGB+	688	60.5	2,182	72.6	438	77.1
Unsure	218	46.7	538	57.4	80	51.8
Violent victimization						
Straight	1,485	9.2	703	4.9	22	16.9
LGB+	181	16.1	326	10.4	113	19.1
Unsure	55	11.6	54	6.0	17	11.0
Supportive adult						
Straight	13,051	81.9	11,435	81.7	114	71.1
LGB+	804	70.6	2,054	68.6	328	56.6
Unsure	369	76.2	683	74.4	99	58.8
Housing instability						
Straight	1,463	9.0	1,397	9.6	34	23.6
LGB+	188	16.2	597	19.1	157	27.0
Unsure	57	11.8	94	10.2	34	20.9
Problematic substance use						
Straight	1,223	7.7	1,306	9.1	15	9.8
LGB+	113	10.2	466	15.2	72	13.3
Unsure	n.r.	n.r.	35	3.8	n.r.	n.r.
Past abuse						
Straight	1,947	12.1	3,126	22.0	33	23.2
LGB+	316	27.6	1,290	42.8	262	44.3
Unsure	75	15.7	200	21.2	47	31.2
Discrimination						
Straight	4,743	30.6	5,544	40.4	70	46.5

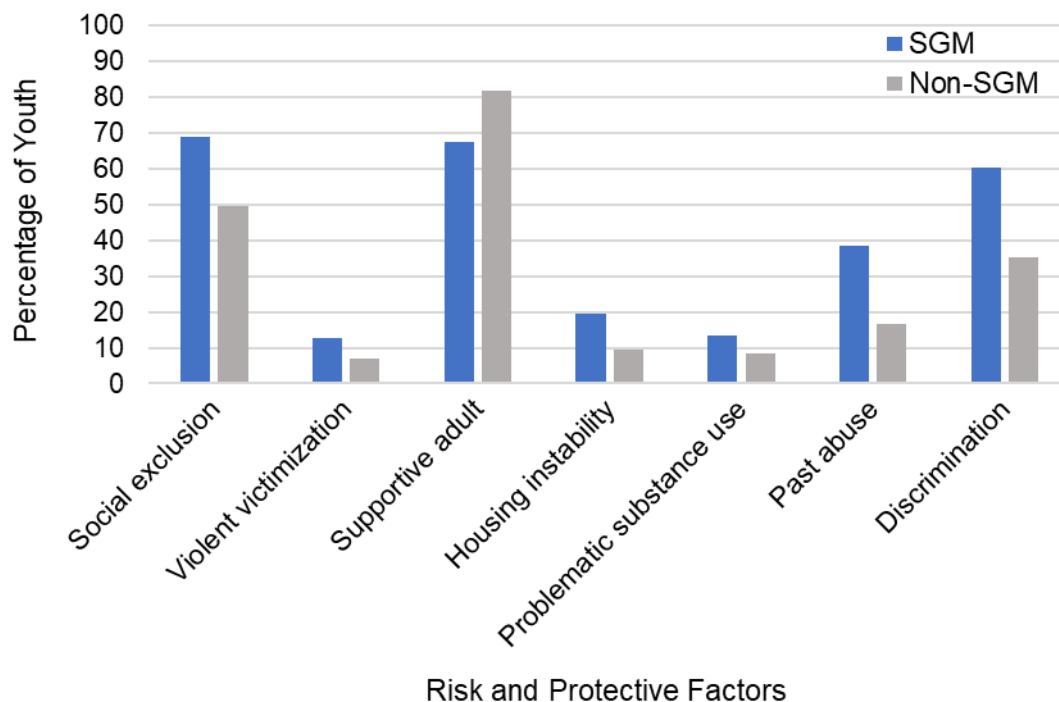| Sexual Orientation	Gender Identity					
	Cisgender boys		Cisgender girls		TGNC youth	
	n	%	*n*	%	*n*	%
LGB+	567	49.9	1,877	63.4	425	73.9
Unsure	157	33.2	374	40.8	75	49.9

Note. Percentages reflect the valid percentage of youth at each intersection of sexual orientation and gender identity reporting each risk or protective factor. n.r. = Not reported due to risk for deductive disclosure (i.e., number of youth in this subgroup reporting problematic substance use was less than 10); LGB+ = lesbian, gay, bisexual, and any other sexual orientation that was not "completely straight" or "unsure"; TGNC = transgender and gender nonconforming.

Table 5.   Mean scores on the School Connectedness Scale

Sexual Orientation	Gender Identity					
	Cisgender boys		Cisgender girls		TGNC youth	
	M	SE	*M*	SE	*M*	SE
Straight	3.71	0.01	3.71	0.01	3.32	0.08
LGB+	3.55	0.03	3.39	0.02	3.14	0.04
Unsure	3.75	0.04	3.65	0.03	3.31	0.08

Note. Mean scores are reported for youth at each intersection of sexual orientation and gender identity. Scores had a theoretical range of 1.00 to 5.00. All groups were significantly different from one another at the *p* < .001 level except LGB+ cisgender girls and straight TGNC youth. LGB+ = lesbian, gay, bisexual, and any other sexual orientation that was not "completely straight" or "unsure"; TGNC = transgender and gender nonconforming.

Table 6.   Mean score on the cumulative risk variable

Sexual Orientation	Gender Identity					
	Cisgender boys		Cisgender girls		TGNC youth	
	M	SE	*M*	SE	*M*	SE
Straight	2.36	0.01	2.74	0.02	3.19	0.16
LGB+	3.18	0.06	3.72	0.04	4.12	0.08
Unsure	2.48	0.09	2.73	0.06	3.20	0.16

Note. Mean cumulative risk scores are reported for youth at each intersection of sexual orientation and gender identity. Scores had a theoretical range of 0.00 to 8.00. All groups were significantly different from one another at the *p* < .001 level except LGB+ cisgender girls and straight TGNC youth. LGB+ = lesbian, gay, bisexual, and any other sexual orientation that was not "completely straight" or "unsure"; TGNC = transgender and gender nonconforming.

Regression analyses indicated that the interaction between sexual orientation and gender identity was significant for school connectedness and social exclusion. Consistent with intersectional understandings of minority stress and marginalization, LGB+ TGNC youth reported the lowest levels of school connectedness, whereas straight cisgender boys and girls reported the highest levels. Regarding social exclusion, LGB+ TGNC youth and LGB+ cisgender girls reported the highest rates, whereas straight cisgender boys reported the lowest rates. Youth who were unsure of their sexual orientation reported similar rates of social exclusion and levels of school connectedness as their straight counterparts. Rates for LGB+ cisgender boys fell between rates for LGB+ cisgender girls and straight cisgender youth.

Contrary to expectations, interactions were not significant for any of the other variables. However, main effects indicated that sexual orientation was significantly correlated with all of the other risk and protective factors. LGB+ youth consistently reported higher rates of risk factors and lower rates of protective factors than straight youth. For youth who were unsure of their sexual orientation, rates of violent victimization, problematic substance use, and past abuse were similar to those of straight youth, whereas rates of housing instability, discrimination, and presence of a supportive adult were between those of LGB+ and straight youth.

Main effects also indicated that gender identity was significantly correlated with all other risk and protective factors except problematic substance use. TGNC youth were more likely to report risk factors and less likely to report protective factors than cisgender boys or cisgender girls. Cisgender girls were more likely than cisgender boys to report housing instability, past abuse, and discrimination, whereas cisgender boys were more likely than cisgender girls to report violent victimization. Cisgender girls were less likely than cisgender boys to report having a supportive adult in their life.

In addition to considering interactions and main effects, I also identified which risk and protective factors were most commonly experienced by SGM youth. Compared to other risk factors, rates of social exclusion, discrimination, and past abuse were especially high for LGB+ TGNC youth and LGB+ cisgender girls. Specifically, 77.1% of LGB+ TGNC youth reported being socially excluded, 73.9% reported experiencing discrimination, and 44.3% reported experiencing past abuse. Likewise, 72.6% of LGB+ cisgender girls reported being socially excluded, 63.4% reported experiencing

discrimination, and 42.8% reported experiencing past abuse. Although LGB+ TGNC youth were less likely than other youth to have a supportive adult in their life, over half of them still reported having a supportive adult present (56.6%). Outcome descriptives across all subgroups of youth—including gay/lesbian, bisexual/pansexual/queer, and asexual/demisexual youth—are reported in the appendix.

Variable-by-variable description of results

A more detailed description of each regression analysis is provided below.

School connectedness

The mean score on the SCS for the entire sample was 3.66 (SE = 0.01). SGM youth scored significantly lower on this scale (M = 3.39; SE = 0.01) compared to non-SGM youth (M = 3.71; SE = 0.01), t = 22.12, p < .001. An ordinal regression revealed that the main effect of gender (F = 24.66, p < .001), the main effect of sexual orientation (F = 21.10, p < .001), and the interaction between gender and sexual orientation (F = 4.94, p < .001) were all significant. Pairwise comparisons between straight cisgender boys, LGB+ cisgender boys, straight cisgender girls, LGB+ cisgender girls, straight TGNC youth, and LGB+ TGNC youth indicated that all groups were significantly different from one another at the p < .001 level except LGB+ cisgender girls and straight TGNC youth. Straight cisgender boys had the highest SCS, followed by straight cisgender girls, LGB+ cisgender boys, LGB+ cisgender girls, straight TGNC youth, and LGB+ TGNC youth (see Table 5 for means across groups).

Social exclusion

Overall, 52.5% (95% CI = 51.9-53.1%) of youth reported being teased or socially excluded in the past year, with 2.26 times more SGM youth (69.1%) reporting social exclusion than non-SGM youth (49.7%), $\chi^2(1)$ = 628.61, p < .001. A logistic regression revealed that the main effects of gender (F = 11.30, p < .001) and sexual orientation (F = 32.08, p < .001), and the interaction effect (F = 3.49, p < .001) were all significant. Pairwise comparisons indicated that straight cisgender boys were significantly less likely than all other youth except straight TGNC youth to report being socially excluded (ps < .001). LGB+ cisgender girls and LGB+ TGNC youth were significantly more likely to report this risk factor than the other groups (ps < .001) but did not significantly differ from each other (see Table 4 for rates across groups).

Violent victimization

Slightly fewer youth (8.0%; 95% CI = 7.6-8.3%) reported being violently victimized in the past year, with 1.91 times more SGM youth (12.8%) reporting violent victimization than non-SGM youth (7.1%), $\chi^2(1)$ = 185.99, p < .001. A logistic regression revealed that the main effects of gender (F = 14.81, p < .001) and sexual orientation (F = 8.37, p < .001) were significant, whereas the interaction was not significant (F = 1.55, p = .548). Since the interaction was not significant, pairwise comparisons were conducted across gender and sexual orientation independently. Regarding gender, TGNC youth were significantly more likely than cisgender boys or girls to report violent victimization, and cisgender boys were more likely than cisgender girls to do so (ps < .001). Regarding sexual orientation, LGB+ youth were significantly more likely than straight or unsure youth to report violent victimization (ps < .001), whereas straight and unsure youth did not significantly differ (see Table 4 for rates across groups).

Supportive adult

Most youth reported having a supportive adult inside or outside of their family at the time of survey completion (79.8%; 95% CI = 79.3-80.3%), with 2.2 times more non-SGM youth (81.8%) reporting this protective factor than SGM youth (67.4%), $\chi^2(1)$ = 548.93, p < .001. Once again, a logistic regression revealed that the main effects of gender (F = 14.85, p < .001) and sexual orientation (F = 18.43, p < .001) were significant, whereas the interaction was not significant (F = 0.54, p = .863). Pairwise comparisons across gender revealed that TGNC youth were less likely than cisgender boys or girls to report this protective factor, and cisgender girls were less likely than cisgender boys to do so (ps < .001). Across sexual orientation, LGB+ youth were less likely to report this protective factor than straight or unsure youth, and unsure youth were less likely than straight youth to do so (ps < .001; see Table 4 for rates across groups).

Housing instability

Only 10.7% (95% CI = 10.4-11.1%) of all youth reported having run away or been kicked out in the past year, with 2.37 times more SGM youth (18.4%) reporting this risk factor than non-SGM youth (9.3%), $\chi^2(1)$ = 470.34, p < .001. As with the above two analyses, a logistic regression revealed that the main effects of gender (F = 11.08, p < .001) and sexual orientation (F = 11.60, p < .001) were significant, whereas the interaction was not significant (F = 1.16, p = .315). Regarding gender, TGNC youth were

more likely than cisgender boys or girls to report this risk factor, and cisgender girls were more likely than cisgender boys to do so ($ps < .001$). Regarding sexual orientation, LGB+ youth were more likely to report this risk factor than straight or unsure youth, and unsure youth were more likely than straight youth to do so ($ps < .001$; see Table 4 for rates across groups).

Problematic substance use

Similarly, only 9.1% of all youth (95% CI = 8.7-9.4%) reported problematic substance use, with 1.68 times more SGM youth (13.3%) reporting this risk factor than non-SGM youth (8.4%), $\chi^2(1) = 120.36$, $p < .001$. A logistic regression revealed that the main effect of gender was not significant ($F = 0.43$, $p = .652$), the main effect of sexual orientation was significant, ($F = 15.61$, $p < .001$), and the interaction was not significant ($F = 0.71$, $p = .715$). Pairwise comparisons indicated that LGB+ youth were more likely to report this risk factor than straight or unsure youth, and straight youth were more likely than unsure youth to do so ($ps < .001$; see Table 4 for rates across groups).

Past Abuse

About one fifth (19.9%; 95% CI = 19.4-20.4%) of all youth reported ever having experienced physical or sexual abuse, with 3.1 times more SGM youth (38.5%) reporting this risk factor than non-SGM youth (16.8%), $\chi^2(1) = 1274.34$, $p < .001$. A logistic regression revealed that the main effects of gender ($F = 12.84$, $p < .001$) and sexual orientation ($F = 37.28$, $p < .001$) were significant, whereas the interaction between gender and sexual orientation was not significant ($F = 1.18$, $p = .298$). Regarding gender, TGNC youth were more likely than cisgender boys or girls to report this risk factor, and cisgender girls were more likely than cisgender boys to do so ($ps < .001$). Regarding sexual orientation, LGB+ youth were more likely to report this risk factor than straight or unsure youth ($ps < .001$), whereas unsure youth and straight youth did not differ (see Table 4 for rates across groups).

Discrimination

Overall, 38.8% (95% CI = 38.2-39.5%) of youth reported experiencing discrimination in the past year, with 2.82 times more SGM youth (60.5%) reporting this risk factor than non-SGM youth (35.2%), $\chi^2(1) = 1136.74$, $p < .001$. Once again, a logistic regression revealed that the main effects of gender ($F = 16.10$, $p < .001$) and sexual

orientation (F = 49.62, p < .001) were significant, whereas the interaction was not significant (F = 1.76, p = .062). Regarding gender, TGNC youth were more likely than cisgender boys or girls to report this risk factor, and cisgender girls were more likely than cisgender boys to do so (ps < .001). Regarding sexual orientation, LGB+ youth were more likely to report this risk factor than straight or unsure youth, and unsure youth were more likely than straight youth to do so (ps < .001; see Table 4 for rates across groups).

Cumulative risk

The average cumulative risk score for the sample was 2.69 (SE = 0.01). Overall, SGM youth had a significantly higher cumulative risk score (M = 3.61, SE = 0.03) than non-SGM youth (M = 2.54, SE = 0.01), t = 35.11, p < .001. An ordinal regression revealed that the main effects of gender (F = 19.28, p < .001) and sexual orientation (F = 52.37, p < .001) were significant, whereas the interaction was not (F = 0.86, p = .570). Regarding gender, TGNC youth scored significantly higher on this scale than cisgender girls or cisgender boys (ps < .001). In addition, cisgender girls scored significantly higher than cisgender boys (p < .001). Regarding sexual orientation, LGB+ youth scored significantly higher than straight or unsure youth, and unsure youth scored significantly higher than straight youth (ps < .001; see Table 6 for means across groups).

2.3.3. Associations between SGM status, risk and protective factors, and custody

Although SGM youth, as a group, reported higher rates of risk factors and lower rates of protective factors than non-SGM youth, it does not necessarily mean that those risk and protective factors operate similarly across SGM and non-SGM youth when predicting a history of custody. Therefore, a series of logistic regressions were conducted to assess the main effects and interaction effects of SGM status and each of the above risk and protective factors on history of custody.

Summary of results

Once again, I will summarize overall patterns in the data before providing a detailed description of each analysis. With respect to predicting a history of custody, there were significant interactions between SGM status and the following risk and protective factors: social exclusion, supportive adult, school connectedness, past abuse, and housing instability. Associations between these variables and history of custody

were weaker for SGM youth than non-SGM youth, and odds ratios were approximately twice as high for non-SGM youth with each risk factor than for SGM youth (Figure 2). Likewise, the cumulative risk variable had a weaker, albeit still positive, association with history of custody for SGM youth compared to non-SGM youth. There was no interaction between SGM status and discrimination, problematic substance use, or violent victimization, which indicates that these risk factors operate similarly across SGM and non-SGM youth. The main effect for each of these three risk factors was significant in the expected direction (i.e., the presence of each risk factor was positively associated with a history of custody). Across both groups, the variables most strongly associated to history of custody were housing instability, violent victimization, problematic substance use, and past abuse.
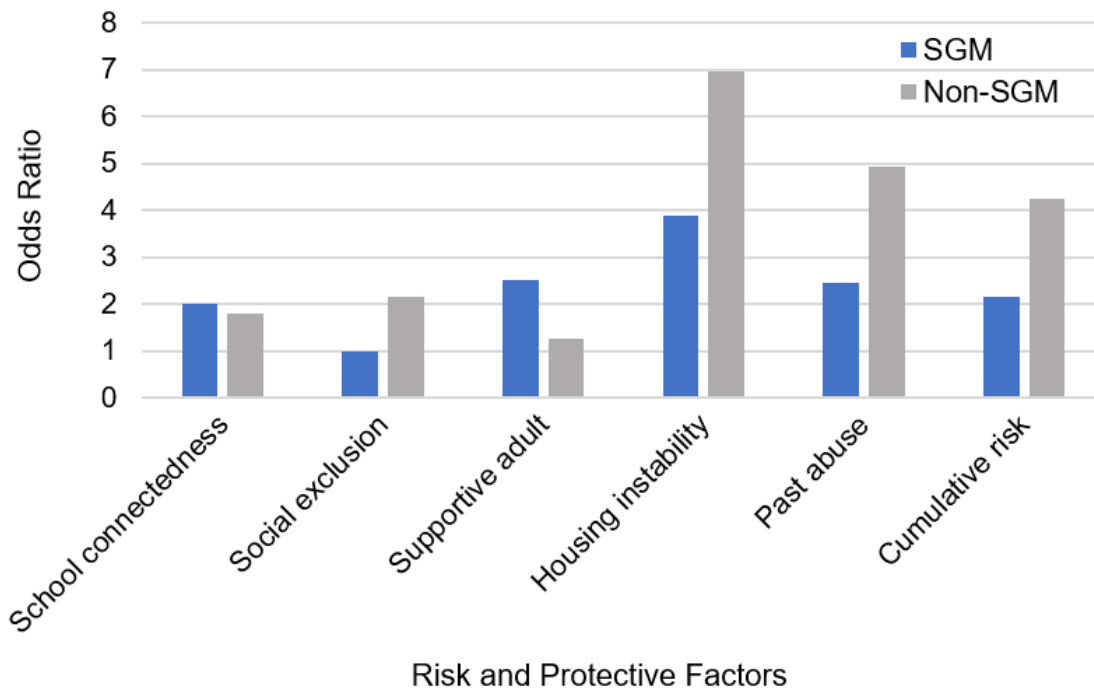
Figure 2.   Significant interactions predicting history of custody
Note. SGM = sexual and gender minority.

Variable-by-variable description of results

A detailed description of each analysis is provided below. Odds ratios and percentages are provided to help describe the magnitude of significant main effects and interactions.

SGM status and school connectedness

The main effect of SGM status (F = 0.01, p = .921) was not significant, whereas the main effect of school connectedness (F = 3.83, p < .001) and the interaction (F = 2.14, p < .001) were significant. Straight, cisgender youth with weak school connectedness were exactly twice as likely to report a history of custody than straight, cisgender youth with strong school connectedness (0.9% vs. 0.4%). SGM youth with weak school connectedness were only 1.79 times more likely to report a history of custody than SGM youth with strong school connectedness (2.7% vs. 1.6%).

SGM status and social exclusion

The main effect of SGM status (F = 85.70, p < .001), main effect of social exclusion (F = 6.98, p = .008), and interaction (F = 9.60, p = .002) were all significant. Straight, cisgender youth who had been teased or socially excluded in the past year were 2.15 times more likely to report a history of custody than straight, cisgender youth who had not been socially excluded (0.9% vs. 0.4%). SGM youth who had been socially excluded and those who had not been socially excluded were about equally likely to have gone to custody (OR = 0.99; 2.2% vs. 2.4%).

SGM status and violent victimization

The main effect of SGM status (F = 46.17, p < .001) and main effect of violent victimization (F = 78.14, p < .001) were significant, whereas the interaction (F = 1.82, p = .178) was not significant. As noted above, SGM youth were more likely than non-SGM youth to report a history of custody. In addition, youth who reported being physically assaulted by another youth within the past year were 4.42 times more likely to report a history of custody than youth who had not been assaulted (3.2% vs. 0.7%).

SGM status and supportive adult

The main effect of SGM status (F = 58.67, p < .001), main effect of supportive adult (F = 17.77, p < .001), and interaction (F = 7.54, p = .006) were all significant. Straight, cisgender youth without a supportive adult inside or outside of their family were 2.52 times more likely to report a history of custody than those with a supportive adult (1.3% vs. 0.5%). SGM youth without a supportive adult were only 1.26 times more likely than those with a supportive adult to report a history of custody (2.6% vs. 2.2%).

SGM status and housing instability

Once again, the main effect of SGM status ($F = 52.63$, $p < .001$), main effect of housing instability ($F = 150.00$, $p < .001$), and interaction ($F = 5.88$, $p = .015$) were all significant. Straight, cisgender youth who had been kicked out or run away from home were 6.96 times more likely to report a history of custody than those who had stable housing (3.0% vs. 0.4%). SGM youth who had been kicked out or run away were only 3.88 times more likely to report a history of custody than those with stable housing (5.7% vs. 1.6%).

SGM status and problematic substance use

The main effect of SGM status ($F = 38.95$, $p < .001$) and main effect of problematic substance use ($F = 31.41$, $p < .001$) were significant, whereas the interaction ($F = 1.52$, $p = .218$) was not significant. As noted above, SGM youth were more likely than non-SGM youth to report a history of custody. In addition, youth who reported problematic substance use were 3.15 times more likely to report a history of custody than other youth (2.2% vs. 0.8%).

SGM status and past abuse

The main effect of SGM status ($F = 51.24$, $p < .001$), main effect of past abuse ($F = 83.28$, $p < .001$), and interaction ($F = 5.97$, $p = .015$) were all significant. Straight, cisgender youth who reported past abuse were 4.94 times more likely to report a history of custody than those who had not been abused (1.9% vs. 0.4%). SGM youth reporting past abuse were only 2.47 times more likely to report a history of custody than those who had not been abused (3.7% vs. 1.5%).

SGM status and discrimination

The main effect of SGM status ($F = 61.12$, $p < .001$) and main effect of discrimination ($F = 18.86$, $p < .001$) were significant, whereas the interaction ($F = 2.39$, $p = .122$) was not significant. As noted above, SGM youth were more likely than non-SGM youth to report a history of custody. In addition, youth who reported being discriminated against in the past year were 2.60 times more likely to report a history of custody than youth who had not been discriminated against (1.4% vs. 0.6%).

SGM status and cumulative risk

The main effect of SGM status (F = 4.71, p = .030), main effect of cumulative risk (F = 19.42, p < .001), and interaction (F = 3.69, p < .001) were all significant. Straight, cisgender youth with a high cumulative risk score were 4.26 times more likely to report a history of custody than those with a low cumulative risk score (1.2% vs. 0.2%). SGM youth with a high cumulative risk score were only 2.17 times more likely to report a history of custody than those with a low cumulative risk score (2.6% vs. 1.4%).

2.4. Study conclusions

Consistent with expectations, results indicated that SGM youth as a group were more likely to report risk factors and less likely to report protective factors than non-SGM youth across all variables. SGM youth also scored higher on the cumulative risk variable than non-SGM youth, indicating that they are more likely to experience multiple risk factors than non-SGM youth. Regarding my hypothesis that these differences would be exacerbated among multiply marginalized youth (i.e., sexual minority TGNC youth), findings were mixed. Sexual minority TGNC youth were more likely to report social exclusion and less likely to feel connected to school than their peers, which indicates that homophobia and transphobia interact to produce worse outcomes for multiply marginalized youth in these areas. These disparities may be interrelated. For instance, concerns about being teased or excluded at school may increase the likelihood that youth feel less connected to school (Birkett et al., 2014; Kosciw et al., 2018). Indeed, consultants for this study indicated that it can not only be difficult to find other SGM youth in school, but the school environment can also be homophobic, transphobic, and sexist, which can contribute to feelings of disconnectedness.

Although the interaction between sexual orientation and gender identity was not significant for any of the other variables, the main effects of sexual orientation and gender identity were generally significant (with the exception of gender identity predicting problematic substance use). These findings suggest that homophobia and transphobia may have similar impacts on youths' likelihood of having a supportive adult, being violently victimized, experiencing housing instability, experiencing past abuse, or being discriminated against. Once again, these disparities appear to overlap. Several consultants shared their perception that SGM youth are more likely to be kicked out of

their homes by caregivers who do not accept their identity, which may force them into precarious living and financial situations and expose them to further discrimination and abuse. More research is needed to understand the experiences of youth who are unsure about their sexual orientation as it is currently unclear whether their experiences are more similar to straight youth, more similar to LGB+ youth, or distinct from either.

Regarding the question of whether risk and protective factors operate consistently across SGM and non-SGM youth in predicting history of custody, results were mixed. All variables except social exclusion were associated with history of custody in the expected direction across groups (i.e., risk factors correlated with higher rates of custody stays and protective factors correlated with lower rates). However, odds ratios predicting a history of custody were lower for SGM youth than non-SGM youth who reported weak school connectedness, no supportive adult, past abuse, housing instability, or social exclusion. There are several possible explanations for these findings. On one hand, SGM youth may cope with these risk factors in more prosocial ways without resorting to illegal behaviour. On the other hand, they might be more prone to experiencing other adverse outcomes not related to legal system involvement, such as mental health difficulties and suicidal behaviour. In addition, the present findings may indicate that the nature of these risk factor differs in important ways between SGM and non-SGM youth. For instance, with respect to housing instability, extant research shows that SGM youth are frequently kicked out of home because of parental nonacceptance of SGM identities or expressions (Durso & Gates, 2012). These circumstances may not facilitate the same pathway to justice system involvement as the ones that predominate straight, cisgender youths' departures from home. Discrimination, problematic substance use, and violent victimization had similar associations to history of custody for SGM and non-SGM youth, which suggests these factors operate similarly across groups.

2.4.1. Research implications

Results from this study extend our currently limited understanding of whether risk and protective factors generalize to SGM youth and helps identify subsequent steps for research. First, findings support current recommendations to use intersectional approaches in research on youth who have been involved in the justice system. Specifically, future studies should strive to assess sexual orientation and gender identity separately and disaggregate subgroups of SGM youth rather than lumping all LGB+ and

TGNC youth together. Although this study indicates that there is diversity between subgroups of SGM youth (e.g., TGNC versus sexual minority youth), it is important to note that there is likely also substantial overlap in developmental trajectories of offending. Indeed, risk and protective factors predicted a history of custody in the same direction across all groups. As such, researchers should continue to investigate whether there are critical distinctions between subgroups of youth, while being careful to not overemphasize differences (Kerig & Schindler, 2013; Shepherd, 2019).

Given that some risk and protective factors do appear to operate differently for SGM and non-SGM youth, an important next step will be to identify underlying mechanisms that account for this increased resilience. One possibility is that adverse circumstances lead youth to develop stronger resources and coping skills (i.e., stress-related growth), which in turn reduces their likelihood of offending and becoming involved in the justice system. For example, consultants surmised that although SGM youth tend to have less social support overall, the quality of their friendships may be stronger, which may foster resilience in other areas. Alternatively, it is possible that SGM youth experience unique protective factors that are not included in current risk assessment frameworks. For instance, some research suggests that living as a sexual or gender minority might be conducive to developing flexibility and creativity (Bullock & Wood, 2016), perhaps in part because many SGM youth must create their own identities, modify roles within their relationships, and express themselves in ways that contradict societal norms (e.g., by developing novel pronouns; Vaughan & Rodriguez, 2014). Research has also uncovered evidence of high authenticity and pride in SGM youth, which is thought to stem from the development of a positive personal and social identity (Vaughan & Rodriguez, 2014). More research is needed to explore whether these characteristics are associated with non-involvement in crime and reduced legal system involvement.

Although SGM youth demonstrated weaker associations to history of custody with respect to many of the risk and protective factors assessed in this study, they still reported higher rates of custodial stays overall. Therefore, more research is needed to identify other variables that might account for this disproportionate representation. For instance, researchers might consider whether there are unique risk factors for SGM youth not included in current risk assessment frameworks (e.g., systemic factors such as hostile school climate, biased responses from professionals, and barriers to accessing

resources). Consultants for the present study emphasized that the legal system may be biased against visibly queer youth, which they surmised likely has an impact on all of levels of legal processing. Future clinical research is also needed to explore the efficacy of interventions for SGM youth, since it is possible that the services currently available are not as effective for SGM youth compared to non-SGM youth.

2.4.2. Clinical implications

Understanding the relationships between SGM status, risk/protective factors, and legal system involvement may improve our ability to accurately assess risk and provide appropriate recommendations for intervention. Given that certain risk and protective factors were less strongly correlated with legal system involvement for SGM than for non-SGM youth, risk assessment tools and techniques may need to be adapted for use with this population. For instance, SGM youth who receive higher risk ratings (e.g., due to experiencing several risk factors and few protective factors) may receive more stringent risk management strategies than are warranted (e.g., custodial rather than community sentences). To help reduce the likelihood of inflated risk estimates and disparate disciplinary outcomes, an addendum could be added to commonly used risk assessment tools to help assessors consider factors that are more or less salient for SGM youth, as well as to highlight the possibility of a lower predictive accuracy within this population. However, since this study focused on associations with custody stays only, more research is needed to assess whether risk and protective factors are differentially associated with outcomes that are more proximal to risk assessment such as violence and other types of offending.

From a treatment perspective, the current findings may provide additional avenues for reducing legal system involvement among SGM youth. Specifically, findings suggest that SGM youth might be more resilient to certain risk factors, which provides support for using strengths-based treatment strategies with this population. For instance, given that most SGM youth in this study reported having a supportive adult in their lives and feeling connected to school, professionals might consider including supportive adults and teachers in their treatment plans with SGM clients. Notably, treatment plans may need to extend beyond legal guardians, especially when such guardians are unsupportive. These suggestions are consistent with positive youth development theory, which indicates that fostering positive skills, attributes, and connections can promote

healthy developmental outcomes for youth (Benson et al., 2006). Positive youth development research also highlights that youth are actively involved in their own development and are often overlooked as agents for creating the types of healthy relationships, experiences, and communities that can facilitate positive outcomes (Benson et al., 2006). Pending research into the underlying mechanisms for increased resiliency among SGM youth, professionals working with SGM clients who have experienced adversity may consider discussing and targeting stress-related growth and positive development with these clients.

Although many risk and protective factors had weaker associations with custody for SGM youth compared to non-SGM youth, associations were generally still positive with the exception of social exclusion, which suggests that these factors are appropriate targets for intervention with this population. The fact that SGM youth demonstrated higher levels of all risk factors compared to non-SGM youth highlights the need to direct more resources toward this group. Resources could include housing initiatives, support groups for families of SGM youth, and school-level interventions such as queer-straight alliance clubs to increase the safety and inclusion of SGM students at school (Johns et al., 2019; Russell & Fish, 2016; Woolley, 2020). Ultimately, changes at all levels of society (e.g., individual, family, school, communities, and government) will likely be needed to improve outcomes for SGM youth and reduce rates of incarceration.

2.4.3. Limitations

The dynamic nature of sexual orientation and gender identity makes these constructs difficult to measure in research (Institute of Medicine, 2011; Waite & Denier, 2019). For example, experts now recognize that sexual orientation is fluid and continuous rather than fixed and categorical (Bosse & Chiodo, 2016; Brabender & Mihura, 2016). This is especially true in adolescence, where youth sometimes endorse and deny same-sex attraction at separate timepoints (Himmelstein & Brückner, 2011). Gender identity can also be difficult to define in adolescence given the complexities associated with consolidating and transitioning to one's affirmed gender (e.g., social, financial, and medical barriers; Hirschtritt et al., 2018; Morgan & Stevens, 2012). Due to these challenges, some SGM youth may not have been captured by this study. However, multiple response options were provided for questions about sexual orientation and gender identity, and participants were given the opportunity to describe

themselves in their own terms, both of which are thought to increase the likelihood that SGM youth are identified (Hirschtritt et al., 2018; Saewyc et al., 2004).

Another limitation to this study is that it did not measure illegal behaviour. In addition, it used a limited measure of legal system involvement—custody only. Legal system involvement is a complex variable with several determinants, some related to offending and others not. Without a measure of illegal behaviour, I was unable to test the differential behaviour or differential processing explanations for why SGM youth experience higher rates of legal system involvement than non-SGM youth. In other words, I could not assess the extent to which disparities in custody stays were due to greater engagement in illegal behaviour or systemic factors such as biased responses from professionals. Therefore, it should be emphasized that findings from this study do not speak directly to the generalizability of risk and protective factors for predicting illegal behaviour, which is the primary use of risk assessment tools in practice. Nevertheless, the current findings are pertinent to reducing adverse legal outcomes among SGM youth and addressing systemic inequality in the legal system. In addition, I attempted to address these limitations in Study 2, which included measures of illegal behaviour, as well as additional types of legal system involvement such as arrests and charges. Future research should examine the present research questions in other student samples using more comprehensive outcome measures.

Although I used a large, provincially representative sample of youth, some subgroups were still too small to analyze separately around a low-occurring outcome such as custody involvement (e.g., subgroups of LGB+ youth). As such, it is still unclear whether these subgroups differ in important ways when it comes to legal system involvement and its predictors. Some research suggests that bisexual women and girls are more likely to experience adverse outcomes, such as sexual violence, harassment, stigmatization, and incarceration, than other subgroups of LGB+ youth (Flanders et al., 2019; Jonnson et al., 2019; Woolley, 2020). Descriptive information was reported for LGB+ subgroups (see appendix) so that future meta-analytic research can combine rates from separate studies into more reliable estimates. In addition, researchers should continue to explore other ways to capture the experiences of these youth, such as by using qualitative or mixed methods designs.

Another limitation of this study is that all variables were measured at the same time point, which precludes conclusions about causality. Due to the nature of the survey, some of the risk and protective factors may have emerged as a consequence of a custody sentence. For instance, experiences of discrimination and victimization in custody may increase the likelihood that youth engage in problematic substance use once they are released. Future research should use longitudinal designs to help determine whether the risk and protective factors identified in this study precede legal system involvement, and whether temporal relationships are similar across groups. Relatedly, given that consolidation of SGM identities and history of custody both tend to increase with age there might be residual confounding related to age. Therefore, future quantitative studies should control for age and other potential confounds when examining relationships between these variables.

Finally, the differential behaviour and processing variables that are thought to shape SGM youth's involvement in the legal system may be even more prominent for SGM youth of colour. Indeed, some racial and ethnic groups report greater homophobic victimization than others (Birkett et al., 2014; Poteat et al., 2016), and substantial research documents disparate legal sanctions among Black and Hispanic youth in the United States (e.g., Piquero, 2008; Rodriguez, 2010; Tan et al., 2018; Zaw et al., 2016). Likewise, Canadian studies have highlighted the overrepresentation of Indigenous youth in the justice system (e.g., Muir et al., 2020). These findings highlight the importance of examining sexual orientation, gender identity, and ethnicity concurrently since belonging to multiple disadvantaged groups may produce unique interactions between risk factors, protective factors, and legal system involvement. One of the barriers to conducting such research is the underrepresentation of Indigenous people and people of colour in the field. Since ethnically and culturally diverse research teams are best suited to explore questions involving ethnicity and culture (Council of National Psychological Associations for the Advancement of Ethnic Minority Interests, 2000; Maar et al., 2011), future research initiatives (e.g., funding/grants and hiring boards) should facilitate and prioritize studies by these researchers.

Chapter 3.

Study 2: Risk and Protective Factors Related to Justice System Involvement Among Street-Involved Sexual and Gender Minority Youth

Although schools are ideal settings in which to recruit large, representative samples of youth, they may exclude youth who face barriers to attending school, such as unhoused and street-entrenched youth. Including these samples in research on legal system involvement can help us further disentangle relationships between sexual orientation, gender, and risk and protective factors. Indeed, different patterns of legal system involvement have emerged from studies of SGM high school students and studies of street-involved SGM youth. Whereas studies of youth in high school tend to report higher rates of legal system involvement (e.g., arrest, incarceration) among SGM compared to non-SGM youth, this trend appears attenuated and, in some cases, reversed in unhoused samples (Jonnson et al., 2019). Given the much higher rates of housing instability experienced by SGM compared to non-SGM youth (Irvine & Canfield, 2016; Majd et al., 2009; Ross-Reed et al., 2019), as well as the links between housing instability and offending (Abramovich, 2012; Fielding & Forchuk, 2013; Majd et al., 2009), it seems likely that housing instability either mediates or moderates the relationship between SGM status and offending found in high school samples.

There are several possible reasons why housing instability is linked to offending. For instance, unhoused youth report disproportionate rates of several of the risk factors discussed in Study 1 including family conflict, peer relationship problems, and past abuse (Heerde & Hemphill, 2019). Perhaps as a result of these risk factors, street-involved youth appear more likely than steadily housed youth to engage in illegal activities such as shoplifting and drug trafficking to acquire essential resources (i.e., survival crimes; Abramovich, 2012; Fielding & Forchuk, 2013; Majd et al., 2009). These findings are consistent with the differential behaviour model, which posits that SGM youth have higher rates of legal system involvement due to higher rates of offending. In addition, unhoused youth tend to experience more stringent surveillance and punishment from legal authorities (e.g., police officers, judges) compared to youth from stable residences (McCandless, 2018; Himmelstein & Brückner, 2011; Piquero, 2008;

Poteat et al., 2016). These findings fit with the differential processing explanation, which posits that SGM youths' overrepresentation in the legal system is due to biased responses from legal system professionals. Given the unique stressors experienced by unhoused and street-involved youth, it is important to assess whether rates of risk and protective factors, offending, and legal system involvement differ between SGM and non-SGM youth when housing instability is held constant.

To my knowledge, only two studies have assessed the relationship between SGM status and legal system involvement among street-involved youth. Noell and Ochs (2001) found that self-reported rates of lifetime arrest and detention did not differ significantly between unhoused sexual minority and heterosexual youth; however, sexual minority youth were less likely to report being arrested in the past three months. Likewise, a more recent study found that street-involved SGM youth were much less likely to report being incarcerated in the past six months compared to street-involved heterosexual youth (Omura et al., 2014). Although these studies suggest that SGM status does not predict legal system involvement among youth with precarious housing, neither study compared rates of risk and protective factors across groups, nor did they evaluate evidence for differential treatment from authorities. Therefore, it is unclear whether street-involved SGM and non-SGM youth who become involved in the legal system share similar characteristics and obstacles. In addition, it is unclear whether street-involved SGM and non-SGM youth who do not become involved in the legal system share similar protective factors.

3.1. Study objectives

Our understanding of the rates and correlates of legal system involvement among street-involved SGM youth is extremely limited. To help evaluate evidence for the differential behaviour and differential processing models, I tested whether there were differences in the self-reported illegal behaviours (i.e., making threats, physically assaulting someone, carrying a weapon, or generating income from illegal activities) and/or legal processing (i.e., arrest, conviction, or custodial stay) of street-involved SGM youth compared to non-SGM youth. To help inform avenues for intervention, I also compared rates of risk and protective factors for legal system involvement (social exclusion, violent victimization, problematic substance use, past abuse, presence of supportive adult, school attendance, school connectedness) between SGM and non-

SGM youth. I then assessed rates of illegal behaviour and legal system involvement, respectively, between SGM and non-SGM youth with each risk or protective factor. Finally, I examined rates of illegal behaviour and legal system involvement, respectively, between SGM and non-SGM youth with high cumulative risk (i.e., median split of total number of risk factors experienced).

Consistent with Study 1, I predicted that, as a whole, SGM youth in this sample would report higher rates of risk factors (social exclusion, violent victimization, problematic substance use, and past abuse) and lower rates of protective factors (presence of a supportive adult, school attendance, and strong school connectedness) compared to non-SGM youth. Based on prior research suggesting that unhoused SGM youth are not disproportionately represented in the legal system compared to unhoused non-SGM youth (Jonnson et al., 2019), I anticipated that SGM and non-SGM youth in this sample would report similar rates of illegal behaviour and legal system involvement. Regarding the differential processing perspective, I hypothesized that SGM youth would be more likely to be processed harshly than non-SGM youth. Specifically, among youth who reported engaging in illegal behaviour, I expected that more SGM youth would report legal system involvement than non-SGM youth. Given the limited research on street-involved SGM youth who have been involved in the legal system, it was difficult to predict whether risk and protective factors would have comparable associations with illegal behaviour and legal system involvement across groups.

3.2. Methods

3.2.1. Sample

Participants consisted of 661 youths aged 12 to 19 years old who were homeless, street-involved, or precariously housed (e.g., couch-surfing, living in a tent or car, staying in a shelter or transition house) at the time they completed the survey. Although 689 surveys were completed, eight were not usable. In addition, 10 participant responses were removed because they did not indicate either their gender or their sexual orientation, and their SGM status could not be determined based on their answer to either of the questions (e.g., they identified as cisgender but did not indicate their sexual orientation). The remaining 661 participants constituted the final sample. Overall, 60.7% (n = 401) youth identified as straight and cisgender, whereas 39.3% (n = 260)

identified as a sexual and/or gender minority. Participants' sexual orientation is reported across gender in Table 7. Regarding family background, 51.9% of youth identified as Indigenous, 39.9% as European, 4.0% as African, 4.0% as Latin/South/Central American, 2.6% as Southeast Asian, 2.3% as East Asian, 2.2% as Caribbean, 1.8% as West Asian, 1.2% as South Asian, 0.9% as Australian/Pacific Islander, and 4.3% as another background (youth could select multiple backgrounds); 9.7% reported that they did not know their background.

Table 7.   **Sexual orientation of Study 2 sample by gender**

| | Gender Identity | | | | | |
| | Cisgender boys | | Cisgender girls | | TGNC youth | |
Sexual Orientation	*n*	%	*n*	%	*n*	%
Straight	248	80.5%	153	46.6%	n.r.	n.r.
Mostly straight	n.r.	n.r.	42	12.8%	n.r.	n.r.
Bisexual	18	5.8%	99	30.2%	12	54.5%
Mostly gay or lesbian	n.r.	n.r.	n.r.	n.r.	n.r.	n.r.
Gay or lesbian	n.r.	n.r.	n.r.	n.r.	n.r.	n.r.
Questioning	n.r.	n.r.	11	3.4%	n.r.	n.r.
Don't have attractions	18	5.8%	13	4.0%	n.r.	n.r.
Multiple responses	n.r.	n.r.	n.r.	n.r.	n.r.	n.r.

Note. *n.r.* = Not reported due to risk for deductive disclosure (i.e., fewer than 10 youth in this subgroup reported a history of custody).

3.2.2. Procedure

I analyzed data from the 2014 Homeless and Street-Involved Youth Survey, which is a community-engaged survey conducted by the McCreary Centre Society (Smith et al., 2015). Community-engaged research involves a collaboration between researchers and community partners who are affected by the issue under study (Centre for Community-Based Research, 2019; Hacker & Taylor, 2011). It helps ensure that those who are most affected by the research are equitably involved in its design, implementation, interpretation, and dissemination (Centre for Community-Based Research, 2019). Development and implementation of the Homeless and Street-

Involved Youth Survey was guided by an advisory committee that included representatives from diverse community organizations across the province, including mental health and Indigenous associations. The advisory committee and adolescent co-researchers were also involved in the interpretation and dissemination of primary findings from this survey.

Given the challenges involved with accessing street-entrenched youth, recruitment was conducted by community co-researchers; in each participating community, co-researchers consisted of one youth worker and one or more youth who had lived experience with housing insecurity. All co-researchers received comprehensive training on the principles of community-engaged research and the procedures for administering surveys. Participants were recruited between October 2014 and January 2015 from 13 communities across BC: Abbotsford/Mission, Burnaby, Chilliwack, Kelowna, Kamloops, Nanaimo, Nelson, North Shore, Prince George, Prince Rupert, Surrey, Vancouver, and Victoria. They were informed that participation was voluntary and anonymous, made aware of the potential risks and benefits of participating, and provided with modest compensation for their participation.

Consultation

To build upon the community engagement that occurred in the original design, implementation, and interpretation of primary findings of the Homeless and Street-Involved Youth Survey, I consulted with four consultants to assist with data interpretation and knowledge dissemination planning. These were the same consultants who provided consultation for Study 1 (see Study 1 for more information about the recruitment and consultation process). Although results from Study 1 may have had a priming effect on consultants when they were evaluating results from Study 2, the primary benefit to using the same consultants for both studies is that they were able to comment on possible reasons for the dissimilar findings that arose between the studies.

3.2.3. Measures

As with Study 1, all variables were based on participants' self-report at the time of survey administration. Participants responded to questions about their demographics, risk and protective factors, illegal behaviour, and justice system involvement, as described below.

Demographics

Family background, sexual orientation, and gender identity were assessed using multiple-choice questions. Family background was assessed the same way it was for Study 1, allowing youth to select multiple backgrounds from a list of 12 response options: Indigenous, European, African, Latin/South/Central American, Southeast Asian, East Asian, Caribbean, West Asian, South Asian, Australian/Pacific Islander, "other," and "I don't know". Sexual orientation included six response options: completely straight, mostly straight, bisexual, gay or lesbian, questioning, and "don't have attractions". Youth who did not identify as completely straight or who selected multiple responses were categorized as a sexual minority. Gender included four response options: female, male, transgender, and another gender, as well as an option for youth to specify their gender in their own words. Youth who identified as transgender, another gender, or multiple genders were categorized as TGNC. Since only 23 youth were TGNC, and all of them were also a sexual minority, all SGM youth (i.e., TGNC and cisgender sexual minority youth) were combined into one group. Participants were also asked how old they were when they first became street-involved/unhoused, as well as whether they became street-involved/unhoused because they ran away or because they were kicked out.

Risk and protective factors

The 2014 Homeless and Street-Involved Youth Survey measured several of the risk and protective factors included in the 2018 BC Adolescent Health Survey (described in Study 1). First, youth reported whether they had ever experienced physical or sexual abuse. Consistent with Study 1, these items were combined into a dichotomous variable capturing past abuse. Second, youth reported how many times they had been physically threatened or socially excluded in the past year. This variable was dichotomized. Third, they reported how many times they had been physically attacked or assaulted in the past year. This variable was also dichotomized. Fourth, they reported whether they had a supportive adult within or outside of their family at the time of survey completion. Fifth, they reported whether they had used alcohol or other drugs in the past year and, if so, whether that use had resulted in negative consequences (e.g., overdosed, got injured, damaged property). Once again, youth were dichotomized into those who reported problematic substance use (i.e., at least three negative consequences associated to their substance use) and those who did not. Sixth, youth reported whether they were currently attending school, and those who were attending school completed the SCS.

Similar to Study 1, youth also reported whether they had been discriminated against in the past year based on any of the following aspects of their identity: 1) race, ethnicity, or skin colour, 2) sexual orientation, 3) gender/sex, 4) disability status, 5) physical appearance, 6) money, 7) age, 8) being seen as "different", 9) being on income assistance, or 10) being homeless. Since all youth in this sample reported some kind of discrimination, it was not included as a predictor in any of the analyses. However, rates of discrimination reported by SGM and non-SGM youth are presented in Table 8 for descriptive purposes. Bayesian tests of proportions (described below) suggest a very high probability (> 95.3%) that unhoused SGM youth experience more discrimination than unhoused non-SGM youth on the basis of sexual orientation, gender/sex, disability status, physical appearance, age, perceived difference, money, income assistance status, and unhoused status. The most likely size of these differences ranges from five percentage points for income assistance status to 28 and 29 percentage points for gender/sex and sexual orientation, respectively. Results indicate that there is only a 63.6% probability that unhoused SGM and non-SGM youth meaningfully differ in their rates of racial discrimination.

Table 8.   **Types of discrimination reported by youth in Study 2**

	SGM		Non-SGM	
Discrimination based on…	***n***	**%**	***n***	**%**
Race, ethnicity, or skin colour	46	21.8%	68	20.6%
Sexual orientation	69	32.5%	12	3.7%
Gender/sex	77	36.3%	25	7.8%
Disability	45	21.4%	35	10.8%
Physical appearance	118	55.7%	99	30.5%
Money	73	24.6%	79	34.1%
Age	101	47.9%	85	26.2%
Being seen as "different"	118	55.1%	93	28.6%
Being on income assistance	28	13.2%	28	8.7%
Being homeless	65	30.8%	72	22.3%

Note. Percentages reflect the valid percentage of SGM or non-SGM youth who reported each type of discrimination. Bayesian analyses indicate a very high probability that the two groups differ on all types of discrimination except racial discrimination. SGM = sexual and gender minority.

As with Study 1, I also created a count variable for cumulative risk based on how many risk factors youth reported. Once again, I created a median split of cumulative risk scores, and items were coded in a similar direction such that '1' represents higher risk (e.g., not attending school, low school connectedness, problematic substance use) and '0' represents lower risk (e.g., attending school, high school connectedness, no problematic substance use). The theoretical range for this item is 0 to 6 as the discrimination item was not included.

Illegal behaviour and justice system involvement

Illegal behaviour included "threatening to hurt someone" in the past year, "physically attacking or assaulting" someone in the past year, "carrying a weapon (e.g., gun, knife)" in the past 30 days, and "generating income from illegal activities" in the past 30 days. Regarding justice system involvement, youth were asked whether they had been arrested in the past year, whether they had ever been convicted of a crime, and whether they had ever spent time in a custody centre.

3.2.4. Data analysis

All analyses were conducted using Bayesian statistical techniques. There are several advantages to using Bayesian approaches compared to traditional null-hypothesis significance testing. For instance, they are less reliant on difficult-to-meet assumptions (e.g., random sampling), and they allow us to compare levels of evidence for competing hypotheses rather than making artificial, binary decisions based on p-values (O'Connor, 2017). For my analyses, I used the R package "Bayesian First Aid" (Bååth, 2014), which provides Bayesian alternatives to commonly used null-hypothesis significance tests such as the chi-square test. A noninformative prior was used for all analyses (i.e., all parameter values were specified to be equally probable) given the lack of robust estimates (e.g., meta-analytic findings) in this area.

As explained by Kruschke (2014), the main purpose of Bayesian analysis is to summarize our knowledge about a parameter of interest. The richest and most informative summary of this knowledge is provided by the posterior distribution. Rather than estimating the "true effect", as is common in traditional null-hypothesis significance testing, the posterior distribution reflects the probability of a range of different effects that are compatible with the observed data. Following the reporting guidelines specified by

Kruschke (2014) and Makowski et al. (2019), I interpreted the posterior distribution of each analysis by reporting estimates of centrality (i.e., median [Mdn]), uncertainty (i.e., 95% equal tail credible interval [CrI]), and existence (i.e., probability of direction [pd]). The 95% credible interval captures the 95% most probable values within the posterior distribution. Although different in meaning, it is roughly equivalent to a confidence interval in that it indicates the uncertainty associated with an effect. The probability of direction reflects how certain we can be that a positive or negative effect exists and ranges from 50-100%. It is strongly correlated with the p-value used in frequentist statistics. Finally, I also reported the most probable size of the difference between groups, along with the 95% CrIs for those estimates.

A region of practical equivalence (ROPE) is sometimes used by analysts to provide a binary indicator of significance analogous to accepting or rejecting the null. However, it is considered distinct from Bayesian inference and requires the analyst to specify a range of values they consider too small to be meaningful. This decision is typically based on practical factors such as the quality of measurement techniques available at the time and/or the costs and benefits of the outcomes of interest. For instance, a small difference in rates of death may be considered meaningful in a drug-treatment study, whereas this difference would be regarded as negligible in another context. Since these decisions are often subjective and tend to evolve over time, it is considered appropriate in many situations to allow readers to apply whichever ROPE they deem appropriate for their context and purpose. Since the research supporting the current study is early in its development, I took this approach and did not define ROPEs for my analyses.

I used two Bayesian tests of proportions to assess whether SGM youth are more likely than non-SGM youth to report engaging in illegal behaviours (i.e., perpetrating a physical threat, perpetrating a physical attack, carrying a weapon, or receiving income from illegal activities) or legal system involvement (i.e., arrest, conviction, or custodial stay). Specifically, I examined the posterior distributions and 95% credible intervals of the relative frequency estimates to determine the probability that SGM youth report more illegal behaviour or legal system involvement than non-SGM youth. I also inspected the posterior distributions of the group differences to assess the most probable size of the difference between groups (e.g., how much bigger the percentage of SGM youth who report illegal behaviour is compared to the percentage of non-SGM youth who report

such behaviour). To assess the likelihood that SGM youth are processed more harshly than non-SGM youth, I conducted follow-up tests of proportions to compare rates of any legal system outcome between SGM and non-SGM youth who report illegal behaviour. If more SGM youth report justice system involvement than non-SGM youth while holding illegal behaviour constant, this finding would support the notion that SGM youth experience harsher processing.

To determine whether rates of risk and protective factors are similar for SGM and non-SGM youth, I first conducted a test of proportions for each of the following dichotomous variables: past abuse (i.e., physical or sexual), social exclusion, violent victimization (i.e., being physically attacked or assaulted), problematic substance use, supportive adult (within or outside of family), school connectedness (i.e., dichotomized SCS scores), and cumulative risk (i.e., dichotomized cumulative risk scores). To determine whether risk and protective factors have similar associations to illegal behaviours and legal system involvement across SGM and non-SGM youth, I isolated youth who had experienced each risk or protective factor and conducted a test of proportions estimating illegal behaviour (or lack of illegal behaviour for protective factors) across groups. I repeated this procedure to estimate legal system involvement across SGM and non-SGM youth who experience each risk or protective factor.

3.3.   Results

3.3.1. Street involvement/housing instability

The mean age participants first became unhoused was 13.76 years old (SD = 2.71; range = 8 to 18 years old). Bayesian estimation for two groups (i.e., Bayesian alternative to the independent t-test; Kruschke, 2013) indicated that there is a 95.4% probability that SGM (Mdn = 13.54; CrI = 13.18, 13.93) and non-SGM youth (Mdn = 13.95; CrI = 13.64, 14.24) do not differ in the age they first became unhoused. Just under half of youth (43.1%) reported they became unhoused because they were kicked out, and a similar proportion reported that it was due to running away (39.6%). The rest reported they became unhoused for another reason (e.g., being unable to find a job or affordable housing). A test of proportions indicated that there is a 98.4% probability that more SGM youth are unhoused due to running away (Mdn = 45.6%; CrI = 38.5, 52.7) than non-SGM youth (Mdn = 35.5%; CrI = 30.0, 41.2). The most likely size of this

difference is 10.0 percentage points, although the posterior of the group difference was fairly wide (CrI_{diff} = 1.1, 19.0). Conversely, there is most likely a miniscule difference (i.e., 1.0%) in how many SGM (Mdn = 42.4%; CrI = 35.5, 49.4) and non-SGM youth (Mdn = 43.7%; CI = 37.9, 49.6) are unhoused due to being kicked out.

3.3.2. Rates of illegal behaviour

Overall, 41.6% of participants reported that they threatened to hurt someone in the past year, 34.9% that they physically assaulted someone in past year, 35.8% that they carried a weapon in the past 30 days, and 17.1% that they generated illegal income in the past 30 days. Based on the test of proportions, there is a 95.2% probability that more SGM youth have threatened someone (Mdn = 45.9%; CrI = 39.6, 52.3) than non-SGM youth (Mdn = 38.9%; CrI = 33.8, 43.9). The groups most likely differ by 7.0 percentage points, although once again the posterior was wide, and the CI straddled zero (CrI_{diff} = -1.3, 15.0). Similarly, there is a 99.4% likelihood that more SGM youth carry a weapon (Mdn = 42.2%; CrI = 35.8, 48.8) than non-SGM youth (Mdn = 31.8%; CrI = 27.2, 36.7). The groups most likely differ by 10 percentage points (CrI_{diff} = 2.5, 18.0). It is highly unlikely that the groups differ in rates of physical assault perpetration or illegal income generation, pd = 51.1% & 58.7%, respectively. The percentage of SGM and non-SGM youth who reported each type of illegal behaviour is presented in Figure 3.
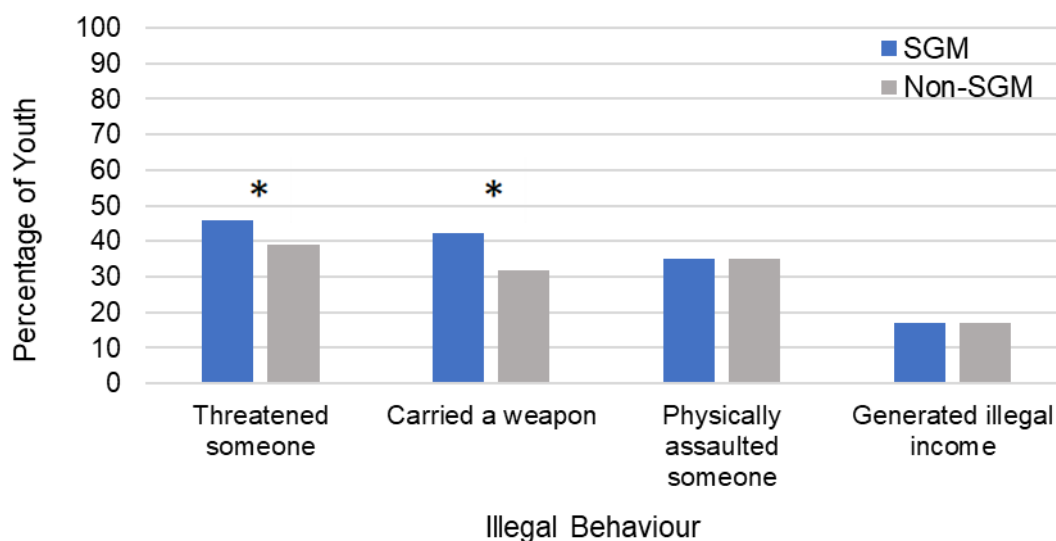
Figure 3.   **Percentage of youth who reported illegal behaviour in the past year**
Note. SGM = sexual and gender minority.
* >95% likelihood that SGM youth report higher rates of these behaviours.

3.3.3. Rates of justice system involvement

Overall, 31.9% of participants reported that they had been arrested in the past year, 35.8% reported that they had ever been convicted, and 17.1% reported that they had ever spent time in a custody centre. Based on the test of proportions, there is an 81.4% probability that more non-SGM youth have been arrested (Mdn = 33.7%; CrI = 27.9, 39.2) than SGM youth (Mdn = 29.8%; CrI = 23.4, 36.3). However, the groups most likely differ by only 4.0 percentage points, and the CrI included zero (CrI_{diff} = -12.0, 4.7). There is a 97.9% likelihood that more non-SGM youth have been convicted (Mdn = 39.2%; CrI = 34.1, 44.2) than SGM youth (Mdn = 31.0%; CrI = 25.3, 36.8). The groups most likely differ by 8 percentage points (CrI_{diff} = -16.0, -0.3). There is a slight chance (pd = 63.7%) that more non-SGM youth have spent time in custody (Mdn = 17.8%; CrI = 13.8, 21.8) than SGM youth (Mdn = 16.7%; CrI = 12.0, 21.7). However, the groups most likely differ by only 1 percentage point, and the CrI included zero (CrI_{diff} = -7.2, 5.5), so there is also a reasonable chance that the direction is reversed.

3.3.4. Differential processing

To test the extent of differential processing (i.e., systemic bias) across groups, I compared rates of legal system involvement across only those youth who reported engaging in illegal behaviour. Overall, 69.1% of participants who engaged in illegal behaviour also experienced some kind of legal system involvement. Contrary to expectations, estimates from the test of proportions suggest that there is a 78.1% chance that more non-SGM youth experience differential processing (Mdn = 70.8%; CrI = 63.0, 77.9) compared to SGM youth (Mdn = 66.0%; CrI = 56.7, 74.6). In other words, among unhoused youth who engage in illegal behaviour, SGM youth are less likely to have been involved in the legal system (e.g., been arrested). The most likely size of the group difference is 4.8 percentage points, although the CrI centered close to zero (CrI_{diff} = -6.8, 16.5), so there is more than a slight chance that the direction is reversed. The percentage of justice system involvement reported by all youth and by youth who reported illegal behaviour is illustrated in Figure 4. The posterior distributions of the estimates for justice system involvement for each group are displayed in Figure 5.
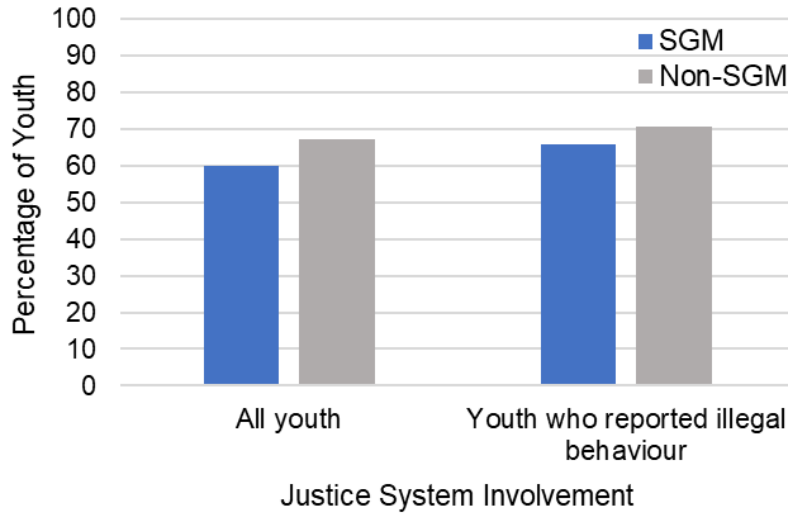
Figure 4. **Percentage of youth who reported justice system involvement**

Note. Justice system involvement included arrests (past year), convictions (lifetime), and custody stays (lifetime). SGM = sexual and gender minority.
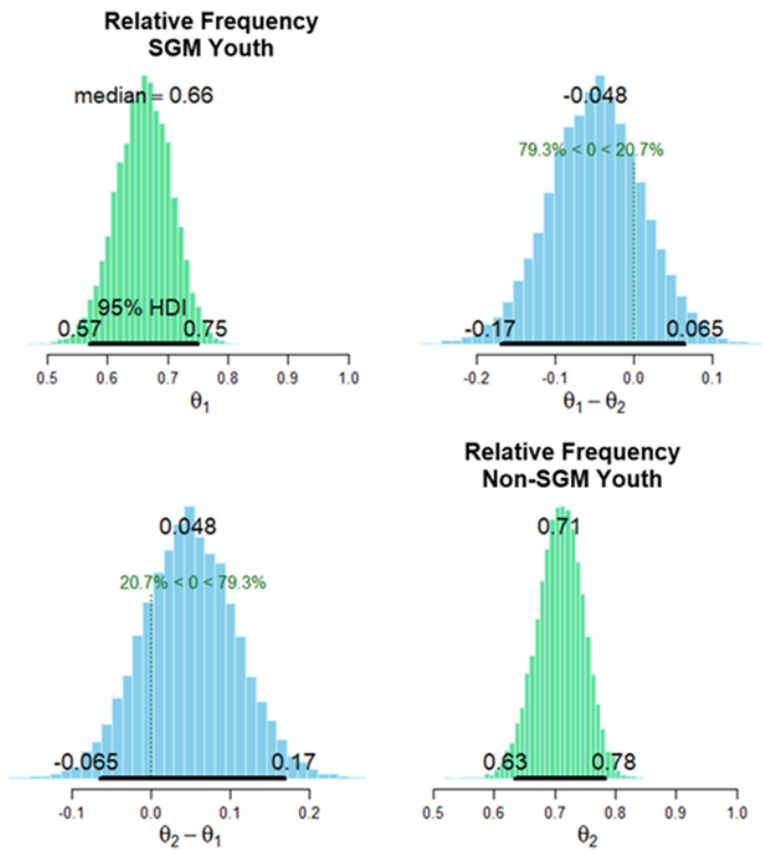
Figure 5. **Posterior distributions of the estimates for justice system involvement for youth who engage in illegal behaviour**

Note. HDI = highest density interval (i.e., credible interval); SGM = sexual and gender minority.

3.3.5. Rates of risk and protective factors

Regarding risk factors, 69.9% of participants reported ever experiencing abuse (physical or sexual), 73.6% reported being threatened or socially excluded in the past year, 42.5% reported being violently victimized (i.e., being physically attacked or assaulted) in the past year, and 46.9% reported engaging in problematic substance use. Tests of proportions indicated a very high likelihood that more SGM youth have experienced abuse (pd = >99.9%), social exclusion (pd = >99.9%), violent victimization (pd = 99.3%), and problematic substance use (pd = 94.6%) than non-SGM youth. The most likely sizes of these differences are 17.1 (CrI_{diff} = 9.7, 24.3), 12.8 (CrI_{diff} = 5.7, 19.7), 10.6 (CrI_{diff} = 2.4, 18.8), and 6.3 (CrI_{diff} = -1.4, 14.1) percentage points, respectively.

Regarding protective factors, 81.8% reported having a supportive adult within or outside their family, 67.1% reported attending school at the time of survey completion, and 48.3% reported feeling a strong sense of connectedness to their school (i.e., dichotomized SCS scores). Tests of proportions estimated that there is an 83.8% chance that more SGM youth have a supportive adult than non-SGM youth, although the most likely size of the difference is only 3.0 percentage points (CrI_{diff} = -3.0, 9.0). There is an estimated 85.5% chance that more SGM youth attend school than non-SGM youth, and the most likely size of the difference is 3.9 percentage points (CrI_{diff} = -3.4, 11.3). Although it is likely that more SGM youth attend school, there is an estimated 97.8% chance that fewer SGM youth feel connected to school, with the most likely size of the difference being 10.8 percentage points (CrI_{diff} = -0.3, 21.0).

Regarding cumulative risk, 54.6% of participants had a high cumulative risk score (i.e., above the median split of the sample). A test of proportions estimated that there is a 99.3% chance that more SGM youth have a high cumulative risk score than non-SGM youth. The most likely size of the difference is 15.8 percentage points (CrI_{diff} = 3.6, 29.0). Group medians and CrIs are reported in Table 9.

Table 9.   **Estimated medians and 95% credible intervals for risk and protective factors**

Variable	*n*	Median	95% CrI
Abuse (lifetime)			
SGM youth	181	79.8%	74.4, 84.8
Non-SGM youth	216	62.7%	57.5, 67.7
Social exclusion (past year)			
SGM youth	184	81.1%	75.8, 86.0
Non-SGM youth	239	68.4%	63.3, 73.2
Violent victimization (past year)			
SGM youth	108	49.1%	42.7, 55.7
Non-SGM youth	134	38.5%	33.5, 43.6
Problematic substance use (past year)			
SGM youth	132	50.7%	44.7, 56.7
Non-SGM youth	178	44.5%	39.6, 49.3
Supportive adult (at time of survey)			
SGM youth	211	83.5%	78.7, 87.8
Non-SGM youth	316	80.5%	76.5, 84.2
School attendance (at time of survey)			
SGM youth	176	69.4%	63.6, 74.9
Non-SGM youth	249	65.5%	60.7, 70.1
School connectedness (at time of survey)			
SGM youth	62	42.1%	34.4, 50.0
Non-SGM youth	108	52.9%	46.2, 59.7
High cumulative risk score (at time of survey)			
SGM youth	62	63.6%	54.3, 73.1
Non-SGM youth	62	47.7%	39.1, 56.0

Note. CrI = 95% credible interval; SGM = sexual and gender minority.

3.3.6. Relevance of risk and protective factors to illegal behaviour

Of the youth who reported engaging in some type of illegal behaviour, 85.5% reported being threatened or excluded in the past year, 60.1% reported being violently

victimized in the past year, 58.8% reported engaging in problematic substance use, and 81.3% reported ever experiencing abuse. Of the youth who did not report illegal behaviour, 59.2% reported being threatened or excluded, 23.0% reported being violently victimized, 27.3% reported engaging in problematic substance use, and 55.7% reported experiencing abuse. Regarding protective factors in youth who reported illegal behavior, 64.6% reported attending school, 43.8% reported feeling a strong connection to school, and 80.3% reported having a supportive adult. Of those who did not report illegal behaviour, 67.8% reported attending school, 52.9% reported feeling a strong connection to school, and 83.9% reported having a supportive adult.

Tests of proportions indicated that among youth who have experienced problematic substance use, social exclusion, or past abuse, there is a moderate likelihood that more SGM youth have committed a crime than non-SGM youth (pds = 87.5%, 81.1%, and 70.0%, respectively). The most likely size of these differences is 6.6 (CrI_{diff} = -4.9, 17.0), 4.2 (CrI_{diff} = -5.3, 14.0), and 3.1 (CrI_{diff} = -7.3, 13.0) percentage points, respectively. However, the CIs all included zero, so there is a chance that these directions are reversed. Among youth who have been violently victimized, there is a 58.2% chance that fewer SGM youth have committed a crime than non-SGM youth. However, the most likely size of this difference is only 1.4 percentage points, and the CrI centered close to zero (CrI_{diff} = -13.0, 9.9), so there is a considerable chance that the direction is reversed.

Among youth who had a supportive adult, there is a very high likelihood that fewer SGM youth have engaged in crime than non-SGM youth (pd > 99.9%). The most likely size of this difference is 37.3 percentage points (CrI_{diff} = 27.6, 46.4). Among youth who attended school or felt a strong connection to school, there is also a moderate likelihood that that fewer SGM youth have engaged in crime than non-SGM youth (pds = 74.9% and 84.5%, respectively). The most likely size of these differences is 3.4 (CrI_{diff} = -4.9, 17.0) and 8.9 (CrI_{diff} = -7.3, 13.0) percentage points, respectively. However, the CIs once again straddled zero, so there is a chance that these directions are reversed.

Among youth who had a high cumulative risk score (i.e., above the median split of the sample), there is a 67.4% chance that fewer SGM youth have committed a crime than non-SGM youth. However, the most likely size of this difference is only 3.8 percentage points, and the CrI included zero (CrI_{diff} = -20.0, 12.6), so there is a slight

chance that the direction is reversed. Estimated group medians and CIs for these analyses are reported in Table 10.

Table 10. **Estimated medians and 95% credible intervals for illegal behaviour among youth who reported each factor**

Variable	*n*	Median	95% CrI
Abuse (lifetime)			
SGM youth	107	64.7%	57.7, 72.0
Non-SGM youth	115	62.0%	55.2, 68.9
Social exclusion (past year)			
SGM youth	108	64.8%	57.3, 71.8
Non-SGM youth	128	60.7%	54.2, 67.4
Violent victimization (past year)			
SGM youth	72	73.0%	64.4, 81.5
Non-SGM youth	89	74.4%	66.9, 82.0
Problematic substance use (past year)			
SGM youth	80	75.0%	66.8, 83.0
Non-SGM youth	90	68.4%	60.5, 76.0
Supportive adult (at time of survey)			
SGM youth	77	43.1%	36.1, 50.5
Non-SGM youth	126	80.4%	74.4, 86.6
School attendance (at time of survey)			
SGM youth	66	45.3%	37.2, 53.1
Non-SGM youth	96	48.7%	41.8, 55.6
School connectedness (at time of survey)			
SGM youth	23	46.1%	32.7, 59.0
Non-SGM youth	49	54.9%	44.4, 64.7
High cumulative risk score (at time of survey)			
SGM youth	40	69.4%	57.9, 80.4
Non-SGM youth	40	73.2%	61.5, 84.1

Note. For past abuse, social exclusion, violent victimization, problematic substance use, and high cumulative risk score, median rates were assessed for youth who reported engaging in illegal behaviour. For supportive adult, school attendance, and school connectedness, median rates were assessed for those who did not report engaging in illegal behaviour. CrI = 95% credible interval; SGM = sexual and gender minority.

3.3.7. Relevance of risk and protective factors to justice system involvement

Of the youth who reported some type of legal system involvement, 73.2% reported ever experiencing abuse, 78.2% reported being threatened or excluded in the past year, 52.8% reported being violently victimized in the past year, and 59.1% reported engaging in problematic substance use. Once again, patterns resemble those found in the total sample and in the subgroups of youth who reported engaging or not engaging in illegal behaviour. Of the youth who did not report a history of legal system involvement, 80.7% reported having a supportive adult, 64.8% reported attending school, and 41.9% reported feeling a strong connection to school.

Tests of proportions indicated that among youth who have been socially excluded, there is a high likelihood that fewer SGM youth experience justice system involvement than non-SGM youth (pd = 94.2%). The most likely size of this difference is 8.5 percentage points. Since the CrI grazed zero (CrI_{diff} = -19.1, 2.1), there is a very slight chance that the direction is reversed. Among youth who experienced problematic substance use, violent victimization, or past abuse, there is a moderate likelihood that fewer SGM youth experience justice system involvement than non-SGM youth (pds = 85.5%, 77.5%, and 77.3%, respectively). The most likely size of these differences is 6.1 (CrI_{diff} = -17.0, 5.3), 5.0 (CrI_{diff} = -18.3, 8.3), and 4.2 (CrI_{diff} = -15.4, 6.5) percentage points, respectively. Since the CIs included zero, there is a slight chance that these directions are reversed.

Among youth who had a supportive adult, there is a very high likelihood that more SGM youth avoid justice system involvement than non-SGM youth (pd = 98.8%). The most likely size of this difference is 11.5 percentage points (CrI_{diff} = 1.9, 21.7). Among youth who attended school or felt a strong connection to school, there is also a moderate likelihood that that more SGM youth avoid justice system involvement than non-SGM youth (pds = 89.2% and 78.4%, respectively). The most likely size of these differences are 7.0 (CrI_{diff} = -4.1, 18.1) and 7.1 (CrI_{diff} = -10.9, 24.7) percentage points, respectively. However, the CIs once again spanned zero, so there is a slight chance that these directions are reversed.

Among youth who had a high cumulative risk score (i.e., above the median split of the sample), it is highly unlikely that SGM and non-SGM youth differ in rates of justice

system involvement (pd = 51.9). Estimated group medians and CrIs for these analyses are reported in Table 11.

Table 11. **Estimated medians and 95% credible intervals for justice system involvement among youth who reported each factor**

Variable	*n*	Median	95% CrI
Abuse (lifetime)			
SGM youth	83	60.0%	52.0, 68.1
Non-SGM youth	103	64.2%	56.5, 71.2
Social exclusion (past year)			
SGM youth	79	58.0%	49.5, 65.8
Non-SGM youth	118	66.5%	59.9, 73.4
Violent victimization (past year)			
SGM youth	56	61.4%	51.5, 71.1
Non-SGM youth	74	66.4%	58.0, 75.3
Problematic substance use (past year)			
SGM youth	73	69.1%	60.3, 77.5
Non-SGM youth	102	75.2%	68.0, 82.2
Supportive adult (at time of survey)			
SGM youth	62	42.6%	34.8, 50.5
Non-SGM youth	68	31.1%	25.0, 37.1
School attendance (at time of survey)			
SGM youth	49	39.9%	31.4, 48.5
Non-SGM youth	54	32.9%	26.0, 40.0
School connectedness (at time of survey)			
SGM youth	15	37.2%	23.6, 52.2
Non-SGM youth	21	30.1%	20.1, 40.8
High cumulative risk score (at time of survey)			
SGM youth	32	59.9%	47.1, 72.5
Non-SGM youth	30	59.6%	46.1, 71.9

Note. For past abuse, social exclusion, violent victimization, problematic substance use, and high cumulative risk score, median rates were assessed for youth who reported a history of justice system involvement. For supportive adult, school attendance, and school connectedness, median rates were assessed for those who did not report a history of justice system involvement. CI = 95% credible interval; SGM = sexual and gender minority.

3.4. Study conclusions

Whereas Study 1 indicated that there are large disparities in rates of risk and protective factors between SGM and non-SGM youth in schools, Study 2 reveals much smaller disparities among unhoused/street-involved youth. To make sense of these seemingly inconsistent findings, it is pertinent to consider the context of the samples. Youth may become unhoused for numerous reasons, including disadvantages related to other aspects of identity such as physical disability, mental health, race or ethnicity, and/or economic factors. As noted previously, issues affecting SGM youth may apply similarly to these other marginalized groups (e.g., factors related to minority stress). Therefore, whereas there is greater variability in the relative advantages and disadvantages experienced by youth in school and community samples (and these advantages and disadvantages are unequally distributed across sexual orientation and gender identity), there is likely lower variability among unhoused samples. In other words, there may be a more 'even playing field' for SGM and non-SGM youth who are unhoused. As noted by one of the consultants for this study, "if you're homeless or street-involved, you're pretty much going to be a victim of violence and exclusion no matter what." Another consultant echoed this sentiment, saying "I don't think anyone who is having to be homeless is in a good situation—as obvious as that is to say."

Unlike Study 1 in which SGM youth were much more likely to have stayed in a custody centre than non-SGM youth, the youth in Study 2 had similar rates of legal system involvement regardless of SGM status. These findings are consistent with other research of legal system involvement among unhoused samples (Omura et al., 2014; Noell & Ochs, 2001). For instance, Omura et al. (2014) found that street-involved SGM youth in Canada were much less likely to experience incarceration than their straight counterparts. Although rates of legal system involvement appear consistent across SGM and non-SGM youth on the streets, the mechanisms leading to housing instability and justice system involvement may differ. For instance, research indicates that family rejection and abuse at home are the most commonly reported factors contributing to housing instability among SGM youth (Durso & Gates, 2012). More research is needed to determine whether pathways into and out of homelessness and legal system involvement are similar for SGM and non-SGM youth.

Regarding the differential behaviour framework, results were mixed. SGM youth and non-SGM youth were equally likely to have physically assaulted another youth and generated income illegally. However, SGM youth were more likely to have carried a weapon and threatened another youth. Considering that SGM youth experience higher rates of harassment and victimization, on average, than non-SGM youth, it seems plausible that these behaviours may relate to self-defence strategies. Consistent with this explanation, one consultant expressed that feeling unsafe might prompt some SGM youth to engage in these behaviours to pre-emptively protect themselves. In addition, most risk factors were more indicative of engaging in the specific crimes examined in this study for SGM youth than non-SGM youth, and protective factors were less indicative of non-involvement in these crimes. These findings indicate that the slightly higher rates of adverse experiences among street-involved SGM youth may help explain their differential engagement in some illegal behaviours. Although research in this area is limited, the present results are somewhat consistent with another study that assessed rates of offending across sexual minority and straight youth (Conover-Williams, 2014). That study identified higher crime rates among sexual minority youth and reported that risk and protective factors partially accounted for these differences. It is important to note that the measure of illegal behaviour in this study was restricted to only four types of crime. Hence, it would be inappropriate to conclude that SGM youth engage in more crime overall than non-SGM youth based on this dataset alone.

Regarding the differential processing perspective, findings indicate that unhoused SGM youth who engage in illegal behaviour are slightly less likely than their straight, cisgender counterparts to experience justice system involvement. This pattern of results does not necessarily imply that systemic discrimination is not occurring. Instead, it may reflect the reality that street-involved youth are discriminated against for a variety of reasons—such as race, disability, or their appearance—such that housing instability washes out the effect of SGM status on justice system involvement detected in community/school samples. This reality is reflected in the current study's finding that every youth in the sample reported at least one type of discrimination. Therefore, SGM youth may stand out as less different from their peers on the street than in schools. In addition, since only four types of illegal behaviour and three types of justice system involvement were measured, this study may have been limited in its ability to detect differential processing of SGM youth.

Regarding the generalizability of risk and protective factors to SGM youth with respect to illegal behaviour, the presence of a supportive adult appears to operate differently across groups. Specifically, it likely has weaker associations to non-involvement in crime for SGM versus non-SGM youth. More research is needed to determine why street-involved SGM youth appear to benefit less from having a supportive adult than their peers when it comes to engaging in crime. These associations have not been tested elsewhere to my knowledge, although Ross-Reed et al. (2019) found that family support was a weaker negative predictor of victimization and self-harm for gender minority youth than for cisgender youth. The authors noted that supportive relationships with adults may not be sufficient to help gender minority youth overcome the complex challenges they face, especially if support is provided selectively (e.g., for academic endeavors but not gender identity).

Although there was some evidence to suggest that the other factors (social exclusion, problematic substance use, past abuse, violent victimization, school attendance, school connectedness, and cumulative risk) have slightly stronger correlations with crime for SGM compared to non-SGM youth, the levels of uncertainty are too high to declare the existence of such differences with much confidence (because the posterior distributions overlapped substantially and the 95% CrIs traversed zero). Violent victimization in particular appears to have a comparable association to crime for SGM and non-SGM youth. Almost three quarters of each group who were violently victimized had also engaged in illegal behaviour, which suggests the strong need for services to support street-involved youth who have been victims of violence.

Associations between risk and protective factors and justice system involvement in this study were relatively consistent to those in Study 1, again supporting the notion of increased resilience to justice system involvement among SGM youth. Specifically, there was strong evidence to suggest that social exclusion has a weaker association to justice system involvement for SGM compared to non-SGM youth. One possible explanation for this finding is that street-involved SGM youth may be less concerned with fitting in with the normative demographic of youth since the process of developing a 2SLGBTQ+ identity often involves challenging societal expectations and defining oneself against traditional norms and values (Vaughan & Rodriguez, 2014). Hence, rather than gravitating toward antisocial peers as a response to exclusion from prosocial peers, they

may be more prone than non-SGM youth to develop an independent identity or to engage with prosocial 2SLGBTQ+ subcultures online or in-person.

In contrast to its weaker associations with the illegal behaviours measured in this study, the presence of a supportive adult appeared to be especially protective for SGM youth in relation to justice system involvement. A possible explanation for this finding is that gender minority youth are often reliant on caregivers to access certain types of gender affirming medical treatment (e.g., hormone replacement therapy). Therefore, street-involved SGM youth with a supportive adult may be more likely to receive appropriate care, which may improve other indicators of health and development that are important for increasing one's overall resilience. To my knowledge research has not yet explored these associations. More research is also needed to understand the role of caregiver support for sexual minority youth. It could be that supportive adults play an important role in reducing internalized stigma and helping SGM youth affirm their identities, especially if these adults are part of the 2SLGBTQ+ community themselves. Improved self-esteem, in turn, could help SGM youth avoid punitive legal outcomes (e.g., by improving self-advocacy and support). However, these possibilities have yet to be investigated.

There was some evidence to suggest that SGM youth are more resilient than non-SGM youth to other risk factors (problematic substance use, violent victimization, and past abuse) and benefit more from other protective factors (school attendance and school commitment) when it comes to legal system involvement. However, once again, the levels of uncertainty associated with these findings are too high to warrant a serious discussion of such trends. Nevertheless, there was relatively strong evidence that cumulative risk operates similarly for SGM and non-SGM youth in relation to legal system involvement in this population. This finding suggests that street-involved SGM youth who have multiple risk factors are just as likely as their non-SGM peers to have been in the legal system such that may benefit from a similar level of support with regard to legal issues.

3.4.1. Research implications

Although SGM youth make up a substantial proportion of unhoused youth (e.g., 39.3% in the current sample; see also Noell & Ochs, 2001), research with this population

is in its infancy. Therefore, opportunities for further research are vast. For instance, the discrepant findings relating to the generalizability of risk and protective factors for illegal behaviour versus justice system involvement are somewhat perplexing. In particular, the presence of a supportive adult appeared less strongly associated with nonviolence but more strongly associated with staying out of the justice system for SGM youth compared to their peers. In addition, as noted above, this study captured only a few types of crime and several categories of offending were not examined such as theft, court order violations, and sexual offences. Therefore, this study is unable to support general inferences about risk and protective factors for offending among SGM youth. Likewise, the narrow measure of illegal behaviours limits conclusions about differential processing from this study. Future research should investigate the presence of systemic biases and the generalizability of risk assessment approaches more comprehensively by including more diverse measures of illegal behaviour, as well as other methods of assessing disparities in justice system involvement (e.g., length of custodial sentences).

Another avenue of investigation involves SGM youth's support systems. In this study, supportive adults could come from within or outside of a youth's family. Since parental rejection is an unfortunately common experience for street-involved SGM youth, they may be more likely than other youth to find "chosen families" (e.g., through 2SLGBTQ+ peer groups or organizations; Conover-Williams, 2014). It is currently unclear whether these chosen families serve a similar protective function as supportive family members who are not chosen in this way. Given the difficulties involved in recruiting large, representative samples of street-involved youth, mixed methods research may be best suited to explore such questions at this time. Specifically, qualitative approaches such as interviews may help contextualize quantitative data related to risk and resilience among street-involved SGM youth.

3.4.2. Clinical implications

Consistent with the minority stress framework, SGM youth in Study 2 reported slightly higher rates of all risk factors, as well as weaker connections to school than non-SGM youth. Hence, similar to Study 1, these findings suggest that greater services may be needed to help address disparities faced by SGM youth in unhoused communities. Conversely, SGM youth in this study were more likely to have a supportive adult and attend school than non-SGM youth. As noted in Study 1, ensuring that schools are safe

and inclusive for SGM youth can improve well-being and increase resilience (Johns et al., 2019). Schools could also be important sites for street-involved youth to find supportive adults, especially if they have strained relationships with their families. One consultant for the present study highlighted the value of supportive school environments in the following statement: "While growing up, school was a home away from home when I wasn't in a good foster home. School would be my escape. I got along with my teachers really well. If you have those supportive adults at school then you're more likely to feel safe there compared to other parts of the community."

Interestingly, a study that surveyed 354 agencies serving unhoused youth across the United States found that 40% of those agencies did not address family-based factors, such as family rejection, despite this factor being the most commonly reported reason for housing instability among SGM youth (Durso & Gates, 2012). Organizations and professionals that serve street-involved SGM youth might benefit from self-assessments and policies to ensure that they are addressing school- and family-based factors in their interventions. Data is also needed to determine whether SGM youth experience any unique barriers to accessing services and interventions programs that may benefit them. For instance, binary gender-based separation of youth at shelters may make it difficult or unsafe for TGNC youth to use these spaces.

Although greater resources are likely warranted overall, considering that patterns of risk and protective factors were remarkably more similar across SGM youth and non-SGM youth in this sample than in the school sample, there may be less of a need to tailor interventions for SGM youth in this population. Nevertheless, given the much higher representation of SGM youth in unhoused samples compared to school samples (e.g., 39.3% in Study 2 compared to 17.9% in Study 1; see also Noell & Ochs, 2001), it seems pertinent for professionals working with this population to have sufficient skills and knowledge relevant to SGM youth. Although diversity training workshops may be limited in their ability to improve outcomes for marginalized groups (Shepherd, 2019), a combination of appropriate education, oversight, and policy development pertaining to sexual orientation and gender may increase the accessibility and effectiveness of current intervention strategies for SGM youth. These recommendations would be consistent with prior research suggesting that many justice system professionals lack knowledge about SGM youth (Irvine, 2010; Majd et al., 2009).

3.4.3. Limitations

Similar to Study 1, a major limitation in this study is the cross-sectional design. Since all variables were measured at the same timepoint, it is unclear whether the risk and protective factors preceded and/or influenced the outcomes. Although, theoretically, it makes sense that minority stress (e.g., discrimination and victimization) leads to adverse outcomes such as offending, arrest, and incarceration, it is also possible that justice system involvement influences the likelihood that youth experience subsequent risk and protective factors such as problematic substance use, low school attendance, and weak school connectedness. Indeed, exposure to high-risk peers appears to have a criminogenic effect on youth, which is one of the reasons that the predominant model of risk management (i.e., the Risk-Need-Responsivity model; Bonta & Andrews, 2017) recommends that interventions be commensurate with a youth's level of risk. Most likely, both processes unfold interactively. However, this study cannot support conclusions about causation or directionality.

Also similar to Study 1, sexual orientation and gender in this study were measured using a categorical, self-labelling approach. Although this approach is consistent with that taken by most extant studies (and included more response options than are typically provided), it may have missed youth who do not identify as a sexual or gender minority but nonetheless experience non-heterosexual attractions or behaviours, or diverse gender expressions. In addition, due to the challenges in accessing street-involved youth, the sample was too small to assess whether findings were consistent across subgroups of SGM youth (e.g., TGNC youth). Given the widespread exclusion and erasure of gender minority youth from research, this is an important weakness for future studies to address.

Finally, although Indigenous co-researchers and ethnically diverse advisors were involved in the design of the original survey, collection of data, and interpretation of results, I am not an Indigenous or ethnic minority person myself. Therefore, in accordance with Tri-Council guidelines (2018) and suggestions from Indigenous communities (Maar et al., 2011) and ethnic minority psychological associations (Council of National Psychological Associations for the Advancement of Ethnic Minority Interests, 2000), I did not conduct Indigenous or ethnicity specific analyses. However, given the large proportion of Indigenous and ethnic minority youth in this sample (and in unhoused

samples generally), Indigenous and ethnically diverse research teams may wish to explore such analyses in future studies.

Chapter 4.   Discussion

It is becoming increasingly recognized that SGM youth are disproportionately affected by a range of adverse outcomes, including discrimination, peer victimization, school difficulties, family rejection, and housing instability (Birkett et al., 2014; Conover-Williams, 2014; Eisenberg et al., 2017; Majd et al., 2009; Reisner et al., 2015; Rice et al., 2015; Toomey & Russell, 2016). Likewise, recent evidence suggests that some SGM youth (e.g., sexual minority girls and gender minority youth) are disproportionately represented in the justice system (Jonnson et al., 2019). Substantial research has identified risk and protective factors for offending and justice system involvement among youth generally (Farrington et al., 2017; Irvine & Canfield, 2016; Palmer & Greytak, 2017). For instance, youth who experience school problems, peer victimization, family discord, housing instability, childhood abuse, and problematic substance use are more likely than their peers to engage in illegal behaviour and become involved in the legal system. Conversely, factors such as school attachment and supportive caregivers have been shown to reduce youth's risk for offending and justice system involvement (Joliffe et al., 2016; Robertson & Walker, 2018; Zimmerman et al., 2013). However, little is known about how these factors operate for SGM youth specifically.

For this dissertation, I conducted two studies to explore the generalizability of risk and protective factors across sexual orientation and gender identity. Study 1 involved a large sample of elementary, middle, and high school students, which allowed me to explore intersectional patterns across subgroups of SGM youth. Study 2 involved a sample of unhoused and street-involved youth, which provided insight into a hard-to-reach population of youth at risk for justice system involvement. Study 2 also benefitted from including a measure of illegal behaviour and additional types of justice system involvement that were not included in Study 1. These additional measures allowed for an exploratory examination of the differential behaviour and differential processing explanations for SGM youth's overrepresentation in the justice system.

Several key findings emerged from this dissertation. First, findings from both studies were generally consistent with past research demonstrating that SGM youth, as a group, are more likely to experience risk factors and less likely to experience protective factors than their peers. For professionals & organizations who work with this population,

being aware that SGM youth are particularly likely to experience risk factors and to lack protective factors may help with prioritization and specialization of services. Second, findings suggest that many of the risk and protective factors used to assess risk and needs among youth generally are also relevant to SGM youth, albeit potentially to a lesser degree. Although these results do not necessarily mean that similar prevention strategies will be equally effective across sexual orientation and gender, they suggest that risk assessors and treatment providers can include current risk and protective factors in their intervention plans with SGM youth.

Third, despite their disproportionately high exposure to risk, SGM youth appear to be more resilient to certain risk factors than non-SGM youth with respect to justice system involvement. Specifically, social exclusion, past abuse, housing instability, absence of a supportive adult, and weak school connectedness appear less indicative of custody history among SGM youth compared to non-SGM youth in schools. Social exclusion also appears less indicative of justice system involvement among unhoused SGM youth. In addition, the presence of a supportive adult appears to be more protective against justice system involvement for unhoused SGM youth compared to unhoused non-SGM youth. Consistent with the move towards more strength-based approaches to assessment and treatment delivery (Ireland & Ireland, 2019; Kaylor & Jeglic, 2022; Singh, Desmarais, Sellers, et al., 2014), these findings indicate that SGM youth may have unique strengths that help protect them in the face of greater adversity. However, much remains to be understood about these processes. For instance, it is unclear whether resilience decreases with the severity of risk factors experienced. In addition, although many risk-exposed SGM youth appear able to resist legal system involvement, some researchers have pointed out that there are "costs to resilience," such as personal resource depletion, as well as social, economic, and mental health difficulties (Kassis et al., 2018). These researchers highlight that it is inappropriate to assume that "the kids are alright" or praise youth for their ability to withstand the burdens that arise from adverse experiences. Instead, adults should continue to focus on reducing exposure to adversity in the first place.

Finally, this dissertation highlights that differences between SGM and non-SGM youth are diluted in unhoused populations. This finding is not surprising given that unhoused youth as a whole tend to have more adverse life experiences than youth with stable housing. Attenuated associations in Study 2 may reflect the overrepresentation of

other marginalized groups in unhoused populations (e.g., racial and ethnic minorities). Overall, this dissertation adds to the growing indirect evidence that housing instability mediates SGM youth's pathways into the justice system. However, formal mediation analyses are needed to test the plausibility of this proposed causal chain. Nevertheless, given that precarious housing can perpetuate difficulties across multiple domains (e.g., health, education, employment, mental health, discrimination, crime) and expose youth to subsequent hardships, housing initiatives remain a top priority for increasing well-being and reducing justice system involvement among SGM youth.

Regardless of whether youth are street-involved or securely housed, proactive social institutions such as 2SLGBTQ+-affirming families, schools, communities, and healthcare organizations can provide critical resources to SGM youth and foster positive outcomes at the individual and societal level (Lytle et al., 2014; Porta et al., 2017; Singh, Meng, et al., 2014). In addressing SGM youth's disparate involvement in the justice system, it is important to recognize the value and importance of including SGM youth and adults with lived experience in these conversations. Centering the perspectives of 2SLGBTQ+ people, particularly those of colour, in research and policy development can help bridge the gap between researchers and participants, as well as provide greater insight into which solutions might be most effective. Future research should continue to explore SGM youth's experiences of risk and resilience in schools, on the streets, and in the justice system so that we can better respond to their needs and ensure that all youth have an equal chance to pursue healthy and happy lives.

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Appendix.

Supplementary Tables

Table 12. **Percentage of youth who reported ever staying in a custody centre (expanded)**

	Gender Identity		
Sexual Orientation	Cisgender boys	Cisgender girls	TGNC youth
Straight	0.7%	0.7%	11.4%
Mostly straight	1.8%	1.8%	n.r.
Bisexual, pansexual, or queer	n.r.	1.9%	3.6%
Gay or lesbian	0.9%	n.r.	n.r.
Asexual or demisexual	n.r.	n.r.	n.r.
Unsure	n.r.	n.r.	n.r.

Note. n.r. = Not reported due to risk for deductive disclosure (i.e., fewer than 10 youth in this subgroup reported a history of custody); TGNC = transgender and gender nonconforming.

Table 13. **Percentage of youth who reported dichotomous risk and protective factors (expanded)**

	Gender Identity					
	Cisgender boys		Cisgender girls		TGNC youth	
Sexual Orientation	*n*	%	*n*	%	*n*	%
Social exclusion						
Straight	6,468	41.4	8,290	59.1	77	50.2
Mostly straight	351	58.4	969	73.2	39	62.7
Bisexual, pansexual, or queer	215	61.4	1,062	73.2	309	81.2
Gay or lesbian	112	67.9	109	66.0	73	74.5
Asexual or demisexual	10	47.4	42	64.1	17	66.7
Unsure	218	46.7	538	57.4	80	51.8
Violent victimization						

Sexual Orientation	Cisgender boys		Cisgender girls		TGNC youth	
	n	%	*n*	%	*n*	%
Straight	1,485	9.2	703	4.9	22	16.9
Mostly straight	96	16.2	135	9.7	14	20.7
Bisexual, pansexual, or queer	58	16.9	177	11.7	75	19.1
Gay or lesbian	22	13.2	13	7.4	21	21.2
Asexual or demisexual	n.r.	n.r.	n.r.	n.r.	n.r.	n.r.
Unsure	55	11.6	54	6.0	17	11.0
Supportive adult						
Straight	13,051	81.9	11,435	81.7	114	71.1
Mostly straight	434	73.0	955	72.1	41	60.9
Bisexual, pansexual, or queer	230	65.5	942	65.0	217	56.8
Gay or lesbian	123	71.3	111	70.5	53	52.7
Asexual or demisexual	17	76.3	46	74.8	17	55.6
Unsure	369	76.2	683	74.4	99	58.8
Housing instability						
Straight	1,463	9.0	1,397	9.6	34	23.6
Mostly straight	104	17.2	255	18.8	25	38.8
Bisexual, pansexual, or queer	61	17.0	308	20.2	104	27.4
Gay or lesbian	21	12.1	28	16.1	24	21.3
Asexual or demisexual	n.r.	n.r.	n.r.	n.r.	n.r.	n.r.
Unsure	57	11.8	94	10.2	34	20.9
Problematic substance use						
Straight	1,223	7.7	1,306	9.1	15	9.8
Mostly straight	57	9.7	202	15.2	n.r.	n.r.
Bisexual, pansexual, or queer	43	12.5	250	16.5	55	15.1
Gay or lesbian	12	8.0	13	9.3	n.r.	n.r.
Asexual or demisexual	n.r.	n.r.	n.r.	n.r.	n.r.	n.r.

	Gender Identity					
	Cisgender boys		Cisgender girls		TGNC youth	
Sexual Orientation	*n*	%	*n*	%	*n*	%
Unsure	n.r.	n.r.	35	3.8	n.r.	n.r.
Past abuse						
Straight	1,947	12.1	3,126	22.0	33	23.2
Mostly straight	152	24.4	552	41.5	23	33.7
Bisexual, pansexual, or queer	108	30.9	650	44.5	182	46.6
Gay or lesbian	51	32.2	68	43.3	46	47.0
Asexual or demisexual	n.r.	n.r.	20	30.8	11	33.8
Unsure	75	15.7	200	21.2	47	31.2
Discrimination						
Straight	4,743	30.6	5,544	40.4	70	46.5
Mostly straight	268	45.3	793	61.8	34	54.2
Bisexual, pansexual, or queer	189	54.2	959	66.2	297	77.7
Gay or lesbian	101	58.7	100	60.6	77	77.2
Asexual or demisexual	n.r.	n.r.	25	40.2	17	60.8
Unsure	157	33.2	374	40.8	75	49.9

Note. n.r. = Not reported due to risk for deductive disclosure (i.e., fewer than 10 youth in this subgroup reported the risk or protective factor); TGNC = transgender and gender nonconforming.

Table 14.   Mean scores on the School Connectedness Scale (expanded)

	Gender Identity					
	Cisgender boys		Cisgender girls		TGNC youth	
Sexual Orientation	*M*	SE	*M*	SE	*M*	SE
Straight	3.71	0.01	3.71	0.01	3.32	0.08
Mostly straight	3.60	0.03	3.47	0.02	3.34	0.11
Bisexual, pansexual, or queer	3.45	0.05	3.33	0.02	3.10	0.05

| | Gender Identity | | | | | |
| | Cisgender boys | | Cisgender girls | | TGNC youth | |
Sexual Orientation	*M*	SE	*M*	SE	*M*	SE
Gay or lesbian	3.62	0.07	3.34	0.06	2.97	0.10
Asexual or demisexual	3.34	0.18	3.43	0.11	3.58	0.08
Unsure	3.75	3.75	3.65	0.03	3.31	0.08

Note. All categories contained greater than 10 youth, so the risk of deductive disclosure was considered low. Scores had a theoretical range of 1.00 to 5.00. TGNC = transgender and gender nonconforming.

Table 15.   Mean scores on the cumulative risk variable (expanded)

| | Gender Identity | | | | | |
| | Cisgender boys | | Cisgender girls | | TGNC youth | |
Sexual Orientation	*M*	SE	*M*	SE	*M*	SE
Straight	2.36	0.01	2.74	0.02	3.19	0.16
Mostly straight	3.05	0.08	3.64	0.05	3.64	0.29
Bisexual, pansexual, or queer	3.39	0.11	3.85	0.05	4.28	0.10
Gay or lesbian	3.24	0.13	3.60	0.14	4.06	0.18
Asexual or demisexual	3.11	0.43	2.86	0.21	3.38	0.28
Unsure	2.48	0.09	2.73	0.06	3.20	0.16

Note. All categories contained greater than 10 youth, so the risk of deductive disclosure was considered low. Scores had a theoretical range of 0.00 to 8.00. TGNC = transgender and gender nonconforming.