

PREDICTING SUICIDALITY AMONG SEXUAL MINORITY YOUTH: EXAMINING THE
ROLES OF PEER AGGRESSION AND EMOTIONAL DISTRESS USING THE YOUTH
RISK BEHAVIOR SURVEY 2017

A Thesis by

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The following faculty members have examined the final copy of this thesis for form and content, and recommend that it be accepted in partial fulfillment of the requirement for the degree of Master of Arts, with a major in Sociology.

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DEDICATION

For my beloved mother Carol Anne Wooley (June 30, 1945-March 16, 2019). Thank you for always propelling me forward and believing in me. I could not have reached this moment without you.

For my family, clan, and relations of Ani-Yun-Wiyah, the strong descendants of the Trail (The Cherokee Nation), this experience is for all of us, with pride. An educated Native is a threat to oppression indeed. Wa-do for your strength, prayers, and support. Look how far we have come!

For my godchildren and relations of the Port Gamble S'Klallam Tribe. Thank you for your love, encouragement, support, and community when I've always been so far away from my tribe. You have shown me the true meaning of s'klallam, or strong. This experience is for all of us, with pride.

For all sexual minority youth: **YOU MATTER!** May studies like these shed light on your experiences and protect future generations from the consequences of minority stress, emotional distress and suicidality with the conception of protective policies.

“I am just a human being trying to make it in a world that is very rapidly losing its understanding
of being human”

John Trudell

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ABSTRACT

Previous studies suggest that minority stress is the consequence of homophobia and discrimination for sexual minority youth. Previous studies reveal that the incidence of suicidality is higher among sexual minority youth than their heterosexual peers, and suggests that experiences of minority stress can predict suicidality. An intersectional framework posits that minority experiences vary by the intersections of sexual identity with race, age, and gender. The Youth Risk Behavior Survey (YRBS) from the Centers for Disease Control and Prevention, asks youth to identify if they have been bullied, electronically bullied, in a physical fight, if they have safety concerns at school, if they have seriously considered suicide, developed a suicide plan, or attempted suicide, as well as asking them to identify their sexual identity and race/ethnicity (Youth Risk Behavior Survey Questionnaire, 2017). Utilizing indicators from the YRBS 2017 national dataset, this quantitative study uses the theoretical frameworks of minority stress and intersectionality, seeking to examine the relationship between minority stress as peer aggression, emotional distress and suicidality for sexual minority youth. This findings of this study suggest that the risk of suicidality for sexual minority youth does not vary significantly by race/ethnicity, but Black Bisexual youth are at significantly lower risk of suicide than their White peers. Overall, a larger percentage of sexual minority youth report peer aggression, emotional distress, and suicidality than do Heterosexual youth. Not only do sexual minority youth report more peer aggression than their Heterosexual peers, but peer aggression is associated with predicting suicidality. Findings point to the importance of further research examining queer safe spaces as a mediating factor and the role of state-level policy to mediate peer aggression in predicting suicide among sexual minority youth.

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CHAPTER 1

1.1 INTRODUCTION

1.1.1 Suicidality among Sexual Minority Youth

Sexual minority youth report higher incidents of suicidal behavior including suicidal ideation, suicidal plan, and suicide attempts (Bostwick, Meyer, Aranda, Russell, Hughes, Birkett & Mustanski, 2014; Burton et al., 2013; Russell, 2003), as well as overall poorer health outcomes than their heterosexual peers (Collins & Rocco, 2014). Sexual minority youth are at between double and seven times the odds of reporting depressive symptoms, compared to their heterosexual peers, validating a public health epidemic for sexual minority youth per the Centers for Disease Control and Prevention (Bostwick et al., 2014, Kaufmann et al., 2017). Additionally, adolescence has been demonstrated to be a particularly difficult time for sexual minorities, often signaling the onset of mental health problems like depression and anxiety (Burton et al., 2013; Kaufmann et al., 2017). At the adolescent stage of development, youth are most affected by their relationships with peers (Brown & Larsen, 2009; Burton et al., 2013; Jones et al., 2013), and negative peer interactions can increase feelings of social isolation, internalized stigma, and sadness or hopelessness, especially for sexual minority youth (Burton et al., 2013; Coulter et al., 2017). Bullying has been demonstrated to predict suicidality in youth generally (Kuehn, Wagner & Velloza, 2019), but sexual minority youth experience bullying at higher rates than their heterosexual peers. For example, 75% of sexual minority youth report experiencing verbal harassment and 28.9% report experiencing physical harassment in the last year, per the GLSEN National School Climate Survey (2017).

Adolescence is a crucial period when it comes to salient identity development (Brown & Larsen, 2009; Jones et al., 2013; Martin-Storey et al., 2012). As youth explore their identities, they receive constant feedback from same age peers (Jones et al., 2013). Due to the natural process of hormonal development, the boundary-testing nature of psychosocial interactions, and the amount of time spent with peers, youth are specifically impressionable to their relationships with peers (Brown & Larsen, 2009; Jones et al., 2013; Martin-Storey et al., 2012). The development of sexual feelings and desire with hormonal maturity shifts the focus of youth from seeking information from adults to confiding in their peers, who are experiencing similar physical and psychosocial changes (Brown & Larsen, 2009). Not all youth develop heterosexual feelings and desire (Russel, 2003), but may feel pressured to hide these feelings in a heteronormative context, like the school environment (Espelage et al., 2018; Espelage, 2014; Martin-Storey et al., 2012). Qualitative studies have demonstrated that heterosexual sexual identity and gender policing occurs in the school context for youth, who are susceptible to these interactions with peers (Pascoe, 2005).

Frequently, the minority stress model is adopted to describe mental health disparities between sexual minorities and heterosexual peers (Burton et al., 2013). This model has been applied to account for environmental factors like the school context (Espelage et al., 2018; Espelage, 2014; Martin-Storey et al., 2012), the virtual context (Priebe & Svedin, 2012), and the process of internalization that contributes to depressive symptoms and suicidality among minority youth (Baams & Dubas, 2017; Baams et al., 2018; Goldbach & Gibbs, 2017; Kaufmann et al., 2017). Studies have demonstrated that rates of depression are higher among sexual minority youth than their heterosexual peers (Bostwick et al., 2014; Burton et al., 2013; Kaufman et al., 2017; Russell, 2003; Stone et al., 2014). It has been difficult to identify which experience

plays a more important role in the development of suicidality: emotional distress or peer aggression (Espelage et al., 2018; Espelage, 2014; Martin-Storey et al., 2012). While studies have demonstrated that both experiences of stigma and peer aggression can lead to emotional distress and suicidality, they are viewed as intersecting factors, rather than independent experiences (Espelage, 2014; Espelage et al., 2018).

Minority stress has been operationalized as peer aggression in previous studies to ascertain the impact of peer interactions on the mental health outcomes of sexual minority youth (Espelage et al., 2018; Espelage, 2014; Martin-Storey et al., 2012, Priebe & Svedin, 2012). Measures of peer aggression in previous studies include bullying, harassment (both verbal and physical), having safety concerns at school, and electronic bullying (Espelage, 2014, Espelage et al., 2018, Priebe & Svedin, 2012). These experiences of peer aggression have been demonstrated to not only impact sexual minority youth, but all youth when it comes to predicting suicidality (Martin-Storey et al., 2012). These previous studies assert that poorer mental health outcomes result from experiences of peer aggression having a significant impact on identity development during adolescence (Brown & Larsen, 2009; Espelage, 2014; Espelage et al., 2018).

Since minority stress has been applied to both racial and sexual minority youth, it is important to adopt an intersectional perspective when considering the experiences of racially/ethnically diverse sexual minority youth (Hill-Collins, 2017, Martin-Storey et al., 2013). The question remains whether experiences of peer aggression and emotional distress are the same for all sexual minority youth, regardless of race/ethnicity (Martin-Storey et al., 2013). While studies focus on the sexual minority youth experience, frequently the racial or ethnic identity of sexual minority youth is lost in focusing on their “queerness” (Martin Storey et al., 2013; Pascoe, 2005).

While many factors have been explored to ascertain the mechanisms behind emotional distress and suicidality for sexual minority youth, no consensus has been reached. Regardless of the mechanism, suicidality is an epidemic among sexual minority youth (Centers for Disease Control and Prevention, 2017), and the rates of suicidality cannot be addressed without adopting an intersectional approach to simultaneous and inter-related factors placing sexual minority youth at-risk (Hill-Collins, 2017). This study seeks to bridge the independent perspectives that have guided previous studies to gain an intersectional examination of suicidality among sexual minority youth.

CHAPTER 2

2.1 LITERATURE REVIEW

2.1.1 The Psychosocial and Sexual Identity Development of Youth

According to Brown and Larson (2009), adolescent development emphasizes interactions with peers because of puberty, social norms, and greater personal autonomy being present at this stage of development. Youth are heavily influenced by their peers, due to the significant amount of time they spend with them in school and social contexts (Jones et al., 2013). Additionally, friendships play a significant role in decision making during the adolescent stage of development, especially when forging sexual identity (Jones et al., 2013). Friends influence the onset of dating, sexual activity, and illicit substance use (Jones et al., 2013). For sexual minority youth, finding positive and prosocial peer bonds can be challenging in a heteronormative context. The peer input that helps youth navigate the development of their sexual identity is difficult for sexual minority youth, as adolescence is a time of norm challenging and enforcement by age peers (Jones et al., 2013). The prevalence of peer policing of gender and sexual identities can adversely affect the psychosocial development of sexual minority youth, creating feelings of marginalization (Baams and Dubas, 2017). Acceptance is crucial feedback in the lives of adolescents and youth, especially on the part of their peers and friends (Baams and Dubas, 2017). Sexual minority youth may struggle to find this acceptance and validation in the heteronormative context of schools (Pascoe, 2005).

2.1.2 Minority Stress Model

Minority stress consists of consistent exposure to prejudice or stigma-related stress (Meyer, 1995). This stress can include verbal slurs, threats, exclusion, bullying, and physical

assault (Bostwick et al., 2014; Burton et al., 2013; Collins & Rocco, 2014; Espelage et al., 2018; Kaufman et al., 2017; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012; Rose et al., 2018; Shramko et al., 2018). Minority stress was originally adopted as a theoretical framework for examining disparities in health for African Americans, but was introduced as a theoretical framework for understanding health disparities among sexual minorities (Meyer, 1995). Meyer's 1995 study applied the minority stress model to health disparities among sexual minority adults, and researchers have continued to apply this framework in subsequent studies on sexual minorities, particularly in the school context (Espelage et al., 2018). A key tenet of the minority stress framework is the acknowledgement that discrimination, including verbal and physical harassment, exclusion, and objectification are prevalent in all social contexts for minorities, which reinforces isolation, othering, and targeting of minority statuses, both racial and sexual. Heteronormativity is often prevalent for adolescents and youth in the school context, where peer policing of gender and sexual identities create embedded "otherness" for sexual minority youth. For sexual minorities, these experiences are homophobic in nature, stigmatizing the identity of sexual minority youth and solidifying feelings of isolation and victimization (Collins & Rocco, 2014; Kaufman et al., 2017)). Approximately $\frac{3}{4}$ of sexual minority students report feeling fearful to attend extracurricular activities at their schools because of having safety concerns (GLSEN School Climate Survey 2017). Feelings of victimization, social isolation and internalized homophobia may result from chronic exposure to heteronormative contexts and external incidents of harassment and assault, leading to poorer mental health outcomes for sexual minority youth, who may feel victimized, targeted, and without social supports (Collins & Rocco, 2014; Espelage, 2014; Espelage et al., 2018). Previous studies suggest that minority stress is a predictive factor in observing suicidality among sexual minority youth, increasing the

odds of suicidal ideation as a potential means of coping with minority stress (Burton et al., 2013; Espelage, 2014; Espelage et al., 2018).

Since minority stress acknowledges the internalization of heteronormativity, stigma, and experiences of discrimination and harassment, minority stress is often applied to studies investigating the prevalence of mental health diagnoses or symptoms among minorities (Espelage, 2014; Meyer, 1995). The identity of minorities is regulated and policed by interactions with society, particularly age peers for youth, thus negatively reinforcing beliefs about identity and self (Espelage, 2014). The roles of internalization and societal stigma in the minority stress model acknowledge that these processes create psychological distress for minority persons (Baams, 2018; Espelage, 2014). The development of this theoretical framework was in response to the observation that minorities suffered disparities in health when compared to white or heterosexual persons. The mechanism behind minority stress is negative psychological processing of stigma, discrimination, aggression, victimization or slurs about minorities in general from a labelling of “otherness” and discrimination (Meyer, 1995). This mechanism solidifies self-stigma and feelings of isolation, translating to poorer mental health and ultimately poorer physical health for sexual minority youth (Russel, 2003). Sexual minority youth who seek feedback and encouragement out of a developmental desire for belonging among peers may struggle to find positive reinforcement of their sexual minority identities (open or closeted) among heterosexual peers (Espelage, 2014; Espelage et al., 2018; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012). Rather than having their emergent sexual identities validated and acknowledged, sexual minority youth may find peer interactions difficult because their identities are targets for humiliation, discrimination, bullying, and verbal and physical

violence within the school setting (Espelage, 2014; Espelage et al., 2018; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012).

2.1.3 Minority Stress as Peer Aggression

In terms of sexual minority youth, minority stress has often been measured in terms of peer aggression, specifically in the school context (Espelage, 2014; Espelage et al., 2018; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012). Examples of minority stress examined in previous studies include threatening, bullying, electronic bullying, and assault, which create safety concerns for sexual minority youth (Espelage, 2014; Espelage et al., 2018; Kaufman et al., 2017; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012).

GLSEN reports that 70% of sexual minority youth report hearing verbal slurs or directly experiencing verbal harassment based on their sexual identity (GLSEN School Climate Survey, 2017). Additionally, about 60% of sexual minority youth reported having safety concerns in their school setting, with a startling 75% avoiding school functions due to safety concerns (GLSEN School Climate Survey 2017). In terms of verbal slurs and aggression, 95.3% of sexual minority youth respondents in the GLSEN School Climate Survey reported hearing homophobic remarks, with 60% reporting that they hear comments of that nature often (2017). According to the Human Rights Campaign and the University of Connecticut's LGBTQ Youth Survey, over 66% of sexual minority youth have experienced bullying (physical and verbal) as the result of their LGBTQ identity (Human Rights Campaign, 2017).

In terms of physical assault, 29.8% of sexual minority youth reported that they had been physically harassed (pushed or shoved) based on their sexual identity, while 12.4% of sexual minority youth reported being physically assaulted (punched, kicked, or injured with a weapon)

in their school (GLSEN School Climate Survey, 2017). In addition, 57.3% of sexual minority youth reported being sexually harassed in the last twelve months in their school context, creating genuine concerns for physical safety among peers in schools (GLSEN School Climate Survey, 2017). Peer aggression is not limited to remarks and name calling for sexual minority youth, though many experience verbal harassment while experiencing much more violent harassment and assault from their peers in the school context (GLSEN School Climate Survey, 2017). Relating to the mechanisms of minority stress, the more passive verbal slurs and harassment are an ever-present reality for sexual minority youth as they navigate their emergent sexual identities while fear of assaults (physical and sexual) provide violent feedback to their expressions of self (Espelage, 2014; Espelage et al., 2018; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012).

The intersection of adolescent sexual identity development with sexual minority status further complicates the effects of peer socialization for sexual minority youth, contributing to increased experiences of peer aggression and social exclusion (Martin-Storey et al., 2015). During adolescent and youth psychological development, a sense of validation and belonging with age peers weighs heavily on the identity of adolescents and youth. Experiences of rejection, harassment, victimization, or homophobia and bullying develop into sexual minority youth being more likely to report having safety concerns in the school context than their heterosexual peers (Espelage, 2014; Espelage et al., 2018; Kaufman et al., 2017; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012). The culture of hegemonic masculinity among adolescent and youth males promotes “fag discourse” and homophobic name calling to assert dominance and masculinity over non-traditional males, sexual minorities, and females (Pascoe, 2005). Due to the prevalence of “fag discourse”, bullying in the school context is often dismissed as typical youth

behavior (Pascoe, 2005). Youth engage in homophobic teasing and name calling to police the gender expression and sexuality of their peers, often using sexual minorities as the subject of their slurs. In the school context, heteronormativity permeates curriculum and social arrangements for youth, with sexual minority youth facing repeated compulsory heterosexuality from teachers, administrators, and their peers. Rose and colleagues (2018) also discussed the role of homophobic harassment and bullying in the school context, finding that sexual minority youth reported higher levels of homophobic bullying and identity policing than their heterosexual peers. The internalization of these frequent experiences, coupled with social exclusion and isolation may cause sexual minority youth to internalize and reflect on these experiences and can precipitate in the development of emotional distress (Espelage, 2014; Espelage et al., 2018; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012). The intersection of emerging sexual identity and social stressors to engage in compulsory heterosexuality contribute to the identity concealment of many sexual minority youth. Even youth who conceal their sexual identity are subject and audience to homophobic discourse and homophobic slurs in the school context, but are much more likely to internalize these processes (Shramko, 2018).

Sexual minority youth report being “out” on social media more than in their family or school contexts (Human Rights Campaign, n.d.), which creates the opportunity for peers to bully them in virtual space, or e-bully (Espelage, 2014; Espelage et al., 2018; Priebe & Svedin, 2012). Consideration for the impact of bullying in virtual space has been included in previous research, as it is still relevant to the peer context and has flexible boundaries with the school context for socialization for youth. The audience on social media is examined relative to the school context because for many youth, as it is an extension of their persona. The virtual identities of sexual minority youth can create queer safe spaces, but they are also subject to aggression from peers

and the public with the network nature of social media (Priebe & Svedin, 2012). While the development of a virtual sexual identity can offer an opportunity to link sexual minority youth to other sexual minority youth and resources for support, it can also create the opportunity for additional minority stress (Priebe & Svedin, 2012). This additional dimension of bullying can follow the youth from the virtual context to the school context, adding to factors of minority stress in the school context (Espelage, 2014; Espelage et al., 2018; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012).

2.1.4 Emotional Distress among Sexual Minority Youth

Sexual minority youth are at between two and six times more likely to report depressive symptoms than their heterosexual peers (Bostwick et al., 2014; Burton et al., 2013; Kaufman et al., 2017; Martin-Storey & Crosnoe, 2012; Russell, 2003). Controlling for family relationships, previous studies suggest that negative experiences with peer socialization during adolescence significantly impact the likelihood of reporting depressive symptoms among sexual minority youth (Burton et al., 2013; Martin-Storey & Crosnoe, 2012; Katz-Wise et al., 2017; Reisner et al., 2014; Seil et al., 2014; Talifero & Muelhenkamp, 2017; Williams & Chapman, 2012; Woodford et al., 2018). Previous research suggests that the developmental stage of adolescence intersects with minority stress for sexual minority youth in such a way that the experiences of discrimination, homophobia and social isolation are experienced more acutely among youth, who desire peer acceptance and spend more time with peers than adults (Jones et al., 2013). These experiences can be internalized, and can develop into subsequent depression (Burton et al., 2013; Hatzenbeuhler, 2009; Hatzenbeuhler et al., 2014; Martin-Storey & Crosnoe, 2012; Talifero & Muelhenkamp, 2017). Rates of depression increase with age for sexual minority youth (Martin-Storey & Crosnoe, 2012). While minority stress may be the same mechanism among adults, the

emphasis on peer socialization during adolescence suggests that negative socialization with peers can have a detrimental effect on prosocial development for sexual minority youth. Hatzenbeuhler (2009) combined minority stress and a psychological development model to account for the psychosocial effects of minority stress from peers and how it predicts depression, particularly in sexual minority youth. By acknowledging the developmental need for peer connection and validation among youth, the emphasis on direct input from peers can be understood as particularly important for depressive symptoms (Hatzenbeuhler, 2009). The impacts of negative peer experiences interact with societal and school context heteronormativity to develop additional stigmatization, which can become internalized and correspond to low perceptions of self-worth for sexual minority youth (Hatzenbeuhler, 2009; Martin-Storey & Crosnoe, 2012).

Research examining the role of minority stress in predicting depressive symptoms over time has often adopted a longitudinal approach (Burton et al., 2013). Multiple longitudinal studies suggest that minority stress leads to increased reporting of depressive symptoms, and increased reporting of depressive symptoms and minority stress correlate to incidences of suicidality (Burton et al., 2013; Hatzenbeuhler, 2009; Kaufman et al., 2017; Martin-Storey & Crosnoe, 2012). The contributions of both cross-sectional and longitudinal research reveal the same result, that minority stress is associated with emotional distress, in the short-term (last twelve months) and in the long-term. Emotional distress, such as feeling sad or hopeless, has frequently been documented as a predictor of suicidal behavior, especially for sexual minority youth (Russel, 2003).

2.1.5 Suicidality among Sexual Minority Youth

With sexual minority youth reporting higher incidences of suicidality (ideation, plan and attempt) than their heterosexual peers, suicide can be identified as a public health epidemic

among sexual minority youth (Bostwick et al., 2014; Burton et al., 2013; Coulter et al., 2017; Kaufman et al., 2017; Mueller et al., 2015; Stone et al., 2014). Russell (2003) suggests that documented incidence of suicidality such as development of a suicide plan and suicide attempts are all preceded by suicidal ideation, so exploration of suicidal behavior must acknowledge that any suicidality beyond suicidal ideation co-occurs with suicidal ideation. This corresponds to acknowledging that the development of a suicide plan was preceded by suicidal ideation and that a suicide attempt was preceded by the development of a plan and suicidal ideation (Russell, 2003). This suggests that suicidal ideation is the most frequently occurring form of suicidality for sexual minorities (Russell, 2003). Researchers have focused on suicidal behavior being on a continuum for the effective implementation of interventions targeted at youth (Espelage, 2014; Espelage et al., 2018; Hatzenbuehler, McLaughlin, & Xuan, 2012; Marshal et al., 2013; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012; Porta et al., 2018). Many studies have focused on the incidence of suicidal behavior rather than acknowledging that subsequent steps (plan and attempt) require arriving at suicidal ideation first and repeatedly (Russell, 2003). The concept of suicidality is considered on a continuum, with suicidal ideation being the first step, followed by the development of a suicide plan and culminating in a suicide attempt (Espelage et al., 2018).

Early research on suicide among sexual minorities focused only on gay male experiences and involved convenience sampling strategies, adopting neither representative sampling nor other sexual minority identities for consideration (Russell, 2003). Acceptance of this early data propagated misinformation about the mechanisms contributing to suicide for all sexual minorities, rather than the specific sample or community being explored (Russell, 2003). These studies focused on the experience of adult gay males only, missing the experience of lesbian,

bisexual and questioning sexual minorities, female sexual minorities, or sexual minority youth (Russell, 2003). Subsequently, these findings could only be related to the sample and could not be generalized to the overall LGBTQ population (Russell, 2003). Since gender is another covariate in understanding the prediction of suicidality and the type of suicidality manifested, the exploration was not substantive or complete when it focused on gay males only (Russell, 2003). In addition, the use of convenience sampling strategies could not tease out facilitative factors for suicidality, as the samples were not representative and the context consistent (Russell, 2003). The development of sexual identity questions in the Centers for Disease Control's Youth Risk Behavior Survey enabled researchers to quantitatively examine the incidence of suicidality among sexual minority youth with nationally representative data and the inclusion of other sexual minority identities and genders for consideration (Russell, 2003).

Data on suicidality among youth suggests that gender plays a role in predicting suicidality, such that males are more likely to report suicidality than their female peers (Porta et al., 2018). Among sexual minority youth, those who identify as bisexual and questioning have been demonstrated to report higher rates of suicidality than their heterosexual peers and gay/lesbian sexual minority youth (Marshall et al., 2013; Porta et al., 2018; Stone et al., 2014). While research suggests that transgender youth also experience minority stress, emotional distress and have higher suicide rates than cisgender peers (Perez et al., 2017), consideration for the relationship between gender discrimination for transgender youth and suicidality cannot be fully explored using the Youth Risk Behavior Survey National Dataset, so analysis for the current study will focus on Gay or Lesbian, Bisexual, and Questioning sexual minorities, rather than examining the experiences of gender minority youth as part of the collective LGBTQ community (Espelage et al., 2018, Espelage, 2014).

The mechanisms contributing to suicidality among youth have been explored extensively, particularly the role of bullying (Rose et al., 2013). Rose and colleagues (2013) found that frequent bullying was reported among 20% of sexual minority youth who also reported depressive symptoms and suicidal ideation. Experiences of bullying can precipitate in feelings of emotional distress, where youth believe that suicidality is their only way out (Bostwick et al., 2014; Burton et al., 2013; Coulter et al., 2017; Kaufman et al., 2017; Mueller et al., 2015; Rose et al., 2013; Stone et al., 2014). These feelings are heightened in the virtual context, where the boundary of the school context is spread to the world wide web (Priebe & Svedin, 2012). With little to no protections in virtual space, sexual minority youth can have safe space when being victimized by electronic bullying and bullying in the school context (Priebe & Svedin, 2012). Emotional distress has been demonstrated to mediate the relationship between sexual identity and suicidality for sexual minority youth (Sutter & Perrin, 2016), but consideration for the role of other identity factors must be considered to gain a substantive understanding of suicidality among sexual minority youth.

2.1.6 The Intersection of Race and Sexual Identity for Youth

The roles of intersecting identities have often been explored when studies have examined minority stress, depression, and suicidality among sexual minority youth. Research has attempted to determine if the minority stress model has any different implications for sexual minority youth that also identify as racial or ethnic minorities (Bostwick et al., 2014; Chae & Walters, 2009; Cheng, Hitter, Adams, & Williams, 2016; Collins & Rocco, 2014; Shramko et al., 2018). Since the minority stress model was adapted from application with racial minority populations to describe the experiences of sexual minority youth, studies have focused on comparisons between White non-Hispanic, Black non-Hispanic and Hispanic/Latinx sexual minority youth

(Hatzenbuehler et al., 2012). While data suggests that Native American/Alaskan Native youth report depression and suicide at higher odds than their white peers (Chae & Walters, 2009), limited sampling of indigenous youth contributes to the lack of substantive and significant data that is released regarding the intersection of this identity with sexual minority identity. Previous studies suggest that Pacific Islander youth are at higher odds of reporting suicidality than their White non-Hispanic, Black non-Hispanic, and Hispanic/Latinx peers (Bostwick et al., 2014), but their relatively small populations in national datasets translates to them becoming grouped with other racial/ethnic identities into one Other non-Hispanic category (Hatzenbuehler et al., 2012).

Supporting the application of the minority stress model, Bostwick and colleagues suggest synergy with the intersectional framework (Hill-Collins & Bilge, 2016) to account for the intersecting minorities statuses of racial/ethnic minority sexual minority youth. Rather than considering statuses as independent phenomena, Bostwick et al. (2014) advocate for the consideration of multiple identities and the interaction that they have with each other. By combining the theories of intersectionality and minority stress, macro level factors that have influenced the development of these identities can be explored and interlocking systems of oppression can be revealed (Hill-Collins & Bilge, 2016). Incidences of sexuality-related minority stress differ among groups of sexual minority youth (Mueller, James, Abrutyn & Levin, 2015), creating the need to examine the intersections of sexual identity and race/ethnic identity (Bostwick et al., 2014). Additionally, experiences of peer aggression differ by race/ethnicity for sexual minority youth (Espelage et al., 2018; Mueller, James, Abrutyn & Levin, 2015; Espelage, 2014). In Mueller and colleagues' study (2015), White non-Hispanic and Hispanic/Latinx gay and bisexual males, White lesbian and bisexual females, and Hispanic/Latinx bisexual females were more likely to be bullied than were White heterosexual youth. While sexual minority

identities corresponded to higher odds of suicidality overall, reporting of bullying varied by the intersection of sexual identity and race/ethnicity. Without examination of how these intersections shape experiences of suicidality and peer aggression for sexual minority youth, the approach to understanding precipitating factors is reductionist and incomplete.

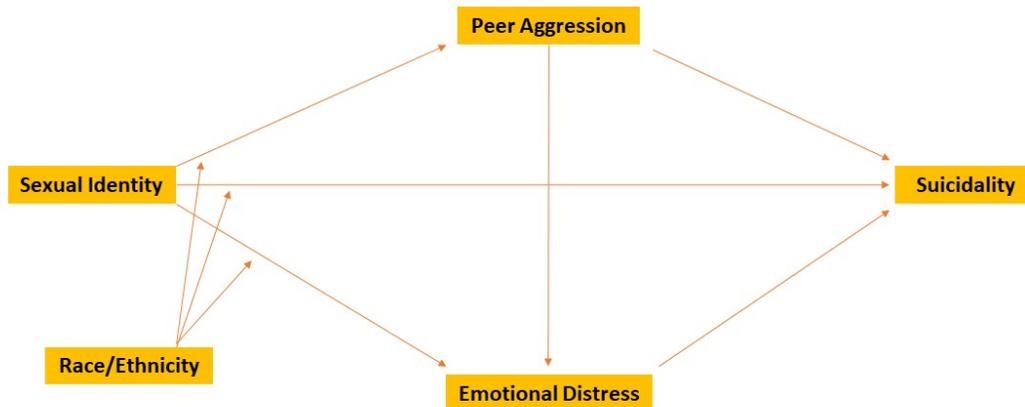
2.2. The Current Study

Sexual minority youth face adversity in the form of minority stress in their school and virtual contexts (Espelage, 2014; Espelage et al., 2018; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012; Priebe & Svedin, 2012). Minority stress is the consequence of external harassment, victimization, and assault, as well as internalized homophobia and discrimination for LGBTQ youth (Espelage, 2014; Espelage et al., 2018; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012). The Youth Risk Behavior Survey from the Centers for Disease Control & Prevention (CDC) asks youth to report experiences of bullying, physical fighting, and harassment, as well as asking them to identify their sexual identity (Youth Risk Behavior Survey Questionnaire, 2017). Self-reported identity was selected as the measurement of sexual identity for this study because it captures the process of internalization, a key process in predicting suicidality in terms of peer aggression and emotional distress (Espelage, 2014). While sexual attraction may be a more developmentally appropriate measure as sexual identity is still in development, the data used in this study do not provide a measure of sexual or romantic attraction. Sexual or romantic partnerships may also measure sexual orientation, but adolescents may not yet have had any romantic or sexual experiences. Thus, using partnerships or experiences to measure sexual orientation may limit the number of youth identifying as sexual minorities for consideration in studies (Russell, Everett, Rosario & Birkett, 2014). Since sexual minority youth are already a statistically low percentage of the population, including these

additional measures has the potential to further restrict the sample when utilizing nationally representative datasets (Russell, Everett, Rosario & Birkett, 2014). The YRBS also asks youth to report whether or not they have felt “sad or hopeless” in the last 30 days, to provide a measure of emotional distress (Youth Risk Behavior Survey Questionnaire, 2017). Finally, assessing for indicators of suicidality, the YRBS also asks respondents report on three aspects of suicidal behavior (ideation, plan and attempt). By considering suicidality in subsequent steps, more can be understood about the at-risk groups for each type of suicidal behavior, ideation, plan and development (Russell, 2003). Utilizing the data from the YRBS 2017 national dataset, this study seeks to examine the relationship between peer aggression, emotional distress, racial/ethnic identity, sexual identity and suicidality for youth. Specifically, this study will examine whether sexual minority youth are more likely to report peer aggression, emotional distress, and suicidality than their heterosexual peers. In addition, this study will explore whether sexual identity differences in peer aggression, emotional distress, and suicidality vary by race.

CHAPTER 3

3.1 RESEARCH QUESTIONS AND CONCEPTUAL MODEL



The conceptual model illustrates the hypothesized relationships between 1) sexual identity and suicidality, moderated by race/ethnicity; 2) sexual identity and peer aggression, moderated by race/ethnicity; 3) sexual identity and emotional distress, moderated by race/ethnicity; and 4) peer aggression and suicidality. The model suggests that sexual identity informs experiences of peer aggression, emotional distress, and as a result, suicidality. Race/ethnicity is conceptualized to mediate experiences of suicidality, peer aggression, and emotional distress, and to vary by sexual identity.

3.1.1 Research Question 1

Are sexual minority youth more likely to report suicidality than their heterosexual peers?

This question seeks to understand trends and predictions of suicidality among all youth, with the expectation that sexual minority youth have greater odds of experiencing suicidality than their heterosexual peers. According to previous studies (Bostwick et al., 2014; Burton et al., 2013; Coulter et al., 2017; Kaufman et al., 2017; Mueller et al., 2015; Russell, 2003; Stone et al., 2014), sexual minority youth have higher odds of reporting suicidality (ideation, plan and attempt) than their heterosexual peers.

Hypothesis 1: Sexual minority youth will report more suicidality than their heterosexual peers.

3.1.2 Research Question 2

Are sexual minority youth more likely to report emotional distress than their heterosexual peers? Previous studies have established that sexual minority youth are at higher risk of reporting emotional distress as depressive symptoms than their heterosexual peers (Bostwick et al., 2014; Burton et al., 2013; Kaufman et al., 2017; Martin-Storey & Crosnoe, 2012; Russell, 2003). Additionally, sexual minority youth that report suicidality also report experiencing emotional distress (Bostwick et al., 2014).

Hypothesis 2: Sexual minority youth will be more likely to report emotional distress than their heterosexual peers.

3.1.3 Research Question 3

Are sexual minority youth more likely to report aggression from peers than their heterosexual peers? This question seeks to understand whether or not sexual minority youth experience minority stress as peer aggression (Espelage, 2014; Espelage et al., 2018; Kaufman et al., 2017; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012). According to the results of previous studies (Espelage, 2014; Espelage et al., 2014; Martin-Storey et al., 2015), sexual minority youth report greater levels of minority stress as peer aggression (Espelage, 2014; Espelage et al., 2018; Kaufman et al., 2017; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012).

Hypothesis 3: Sexual minority youth are more likely to report peer aggression, including being bullied, threatened at school, in a fight at school, and having safety concerns at school, relative to their heterosexual peers.

3.1.4 Research Question 4

Do youth who experience peer aggression report more suicidality? This question seeks to understand if experiencing peer aggression corresponds to elevated odds of experiencing suicidality. According to previous studies (Espelage, 2014; Espelage et al., 2018; Kaufman et al., 2017; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012), youth who experience peer aggression have greater odds of experiencing suicidality.

Hypothesis 4: Youth who experience peer aggression report more suicidality than those who do not.

3.1.5 Research Question 5

Do sexual identity differences in peer aggression, emotional distress, and suicidality vary by race? This question seeks to understand the whether the relationship between sexual identity and suicidality, sexual identity and peer aggression, and sexual identity and emotional distress vary by the race/ethnicity of the youth. Racial/ethnic minorities that are sexual minorities experience the intersectional relationship between their sexual identity and their race/ethnicity (Hill-Collins, 2016). Bostwick and colleagues suggest that racially diverse sexual minority youth experience lower rates of suicidality among gay or lesbian sexual minorities than among bisexual and questioning racially diverse sexually minorities (Bostwick et al., 2014).

Hypothesis 5: Suicidality among youth will vary by the intersection of sexual identity and racial/ethnic identity.

CHAPTER 4

4.1 METHODS

4.1.1 Data

The Youth Risk Behavior Survey 2017 is a nationally representative dataset, collected by the Centers for Disease Control and Prevention. The data is used to monitor American youth for health risk behaviors, including “behaviors that contribute to unintentional injuries and violence, sexual behaviors that contribute to unintended pregnancy and sexually transmitted infections, alcohol and other drug use, tobacco use, unhealthy dietary behaviors, and inadequate physical activity that could lead to obesity or asthma” (YRBS Data User’s Guide, 2017). School, medical, social work, and sociological professionals use this data to monitor the potential co-occurrence of risk behaviors, compare youth health risk over time, compare risk behaviors between and across groups of youth, and to provide substantive health data on the state, national, tribal, and local levels (YRBS Data User’s Guide, 2017).

The data was retrieved electronically from the Centers for Disease Control website, available for free public download. The full survey questionnaire had 244 questions, with 14,465 cases in the final publicly available sample. The sample consisted of youth, ages 12-18, attending public schools in 46 states in the US. The Youth Risk Behavior Survey uses a three-stage cluster sample design to produce a representative sample of 9th through 12th grade students (YRBS Data User’s Guide, 2017). Weighting factors were constructed to account for both non-responses and to account for the oversampling of Black and Hispanic students in the sample (YRBS Data User’s Guide, 2017). According to the YRBS Data User’s Guide, “The final, overall weights were scaled so the weighted count of students was equal to the total sample size, and the

weighted proportions of students in each grade matched population projections for each survey year...because of the complexity of the cluster sampling design used, a statistical software package that can calculate sampling variance appropriately must be used” (2017). The final sample used for this study had a school response rate of 75%, a student response rate of 81% and an overall response rate of 60% (YRBS Data User’s Guide, 2017; p.5)

The YRBS 2017 was selected for this study because of the indicators that are included, particularly sexual identity, experiences of victimization, and incidences of suicidal behavior. Previous studies have used this dataset to examine the experiences of sexual minority youth, since it is nationally representative and asks respondents to select their sexual identity (Burton et al., 2013; Espelage, 2014; Espelage et al., 2018). The final sample contains 9,705 cases after sampling restrictions.

Approximately 4,079 cases were removed from the final sample due to missing data. First, cases missing on the dependent variables, suicide ideation, suicide plan, and suicide attempt, were excluded (n=3,210). This initial sampling restriction accounted for an overall loss of 19% of the original cases. Importantly, some states opted out of asking questions about suicide, so this sample restriction resulted in some states being omitted from the sample. In addition, cases missing on key indicators, including peer aggression (n=126), emotional distress (n=222), and sexual identity (n=657) were also excluded. Finally, cases missing on race (n=337), gender (n=127) and age (n=81) were removed from the sample. It is important to note that the discrepancy between the total number of missing cases and the final sample size can be attributed to some youth having missing responses on multiple indicators. The final sample size is 9,705 youth.

After sampling restrictions were made, a relative weight was calculated from the standard weight provided with the data to reflect the sampling restrictions and applied to guarantee that the sample was reflective of the population of youth in general, in terms of their sex, race, sexual identity, and ages.

4.1.2 Measures

4.1.2.1 Suicidality

The Youth Risk Behavior Survey from the Centers for Disease Control & Prevention, asks youth to respond to indicators of suicidality, such as suicidal ideation, suicidal plan development, and suicide attempts (Youth Risk Behavior Survey Questionnaire, 2017). Suicidal ideation was measured in the YRBS 2017 by asking respondents to identify if they had ever seriously considered attempting suicide in the last 12 months. This variable was a binary variable where respondents indicated suicidal ideation as “yes” (1) and “no” (0). Approximately 17.7% of respondents (n=1,717) reported having thought about suicide in the past 12 months while 82.3% (n=7,987) reported that they had not. (Please see frequency Table A.1 in Appendix A). Suicide plan was measured by asking respondents if they had ever made a plan about how they would attempt suicide. This variable was binary with “yes” (1) and “no” (0). Approximately 13.8% of respondents (n=1,343) reported having made suicide plans while 86.2% (n=8,362) reported not having made a suicide plan. (Please see frequency Table A.1 in Appendix A). Suicidal attempt was measured by asking respondents to answer an ordinal level question asking how many times they had attempted suicide during the past 12 months. This variable was recoded into a binary outcome variable with those who had attempted suicide 1 or more times assigned the value of “yes” (1) and those who had not attempted assigned the value of “no” (0). Approximately 7.1% of respondents (n=685) reported having attempted suicide during the past

12 months while 92.9% (n=9,020) reported that they had not. (Please see frequency Table A.1 in Appendix A).

4.1.2.2 Sexual Identity

Sexual identity is measured in the YRBS as a nominal-level variable, asking respondents to “which of the following best describes you”, with the possible values of “Heterosexual”, “Gay or Lesbian”, “Bisexual” and “Not Sure”. Approximately 85.8% (n=8,323) of youth in this sample identified as heterosexual. “Gay or Lesbian” constituted 2.2% of the sample, with 216 youth identifying as “Gay or Lesbian”. “Bisexual”, constituted 8.2% of the sample, with 798 youth identifying as “Bisexual”. The 3.8% (n=367) youth who marked “Not Sure” are considered “Questioning” in this study, as they are unsure of their sexual identity. (Please see frequency A.1 Appendix A).

4.1.2.3. Race/Ethnicity

The race/ethnicity variable was constructed from combining the race variable with an ethnicity variable to identify Hispanic/Latinx ethnicity. The resulting variable had fewer options for youth, with more discrete categories. White respondents comprised over half of the sample, with 55.3% (n=5,366) identifying as White non-Hispanic. Black Non-Hispanic respondents accounted for 11% of the sample (n=1,069). Hispanic/Latinx respondents accounted for 22.9% of the sample (n=2,221). Other races, non-Hispanic constituted 10.8% of the sample (n=1,049). The category “Other Non-Hispanic” included Asian, Pacific Islander, Alaskan Native/Native American, and Native Hawaiian. Each of these individual groups was not large enough to be considered with the other race/ethnicity groups in a comparison, and thus had to be combined into a single category. The resulting group was labeled Other Non-Hispanic. Due to the diverse

nature and small numbers in the Other non-Hispanic category, the study could not make meaningful interpretations for this group. (Please see frequency Table A.1 in Appendix A).

4.1.2.4. Peer Aggression

The threatened at school question asked respondents how often they had been threatened or injured with a weapon at on school property in the last twelve months. This variable was recoded into a binary variable to assess whether or not the youth had been threatened at school 1 or more times, with 0 “no” and 1 “yes”. Approximately 5.4% of youth (n=525) reported being threatened at school, while 94.6% (n=9,180) reported that they had not been threatened at school. (Please see frequency Table A.1 in Appendix A). Youth were asked to identify if they had been in a physical fight in the last twelve months and were offered ordinal level categories to best describe the frequency of fighting incidents. This variable was recoded into a binary variable with 0 “0 times” and 1 “1 or more times” for whether or not they have been in a fight with peers. The majority of youth, 77.2% (n=7,492) indicated that they had not been in a fight, while 22.8 % (n=2,213) of youth indicated that they had. (Please see frequency Table A.1 in Appendix A). Youth were asked whether they had been threatened on school property with a weapon (gun, knife or club) in the last twelve months, with binary responses. Youth answering “yes” (1) accounted for 19.7% of youth (n=1,908) and “no” (0) accounted for the other 80.3% of youth (n=9,151). (Please see frequency Table A.1 in Appendix A). Youth were asked if they had been electronically bullied in the last twelve months, with binary responses of “no” (0) and “yes” (1). A majority of youth, or 84.6% of the respondents (n=8,207) reported experiencing no electronic bullying while 15.4% of the sample (n=1,498) youth reported that they had experienced electronic bullying. (Please see frequency Table A.1 in Appendix A). The YRBS 2017 includes a question that asks students to identify how many days in the last twelve months they had safety

concerns at school that prevented their attendance. This variable was recoded from an ordinal variable to a binary variable with the values “yes” (1) if they had safety concerns that prevented their school attendance and “no” (0) if they had no safety concerns that impacted their school attendance in the last twelve months. Approximately 6.1% of the sample (n=589) youth reported having safety concerns at school that prevented their attendance, while 93.9%, or (n=9,116) reported not having safety concerns at school. (Please see frequency Table A.1 in Appendix A).

4.1.2.5. Emotional Distress

The YRBS 2017 includes a question asking youth to identify if they have felt sad or hopeless almost every day for at least two weeks in a row in the last 30 days. This variable was a binary variable with the values of (1) “yes” and (0) “no”. A majority of the sample, or 67.7% (n=6570) of youth indicated that they had not felt sad or helpless, while 32.3% (n=3135) reported that they had felt sad or helpless for at least two weeks in a row. (Please see frequency Table A.1 in Appendix A).

4.1.2.6. Control Variables

According to previous studies, females report higher frequency of suicidal ideation, plan and attempt (Burton et al., 2013; Porta et al., 2018; Russell, 2003; Stone et al., 2014). The YRBS 2017 data contains a binary sex variable rather than a gender indicator. The original values for sex were (1) “female” and (2) “male”, but these were recoded to a binary 0 “male” and 1 “female”. Approximately 49% of the youth, (n=4,751) identified as female and 51% of youth (n=4,954) identifying as male. (Please see frequency Table A.1 in Appendix A). Age is explored to determine if any particular age group is at higher risk of reporting suicidality than another. The age variable in the YRBS 2017 is ordinal, with the possible choices of “12 years old or younger”, “13 years old”, “14 years old”, “15 years old”, “16 years old”, “17 years old” and

“18 years old or older”. These categories were combined into fewer categories for multivariate analysis. The new categories were “12 to 14 years old”, containing 11.7% of the sample (n=1,139). The “15 to 16 years old” option only contains 50.3% of the sample (n=4,878). The “17 years +” category accounts for 38% (n=3,689) of the sample. The “15-16 years old” group was held for the reference group, as it described the largest percentage of the youth respondents. (Please see frequency Table A.1 in Appendix A).

4.2 Analytic Plan

The first research question, “are sexual minority youth more likely to report suicidal behavior” was explored by performing a crosstab on suicidal ideation, suicide plan, and suicide attempt by sexual identity to see if there is a relationship between sexual identity and suicidality. Additionally, the relationship between suicidality and sexual identity was explored, using Chi Square. The next question, “are sexual minority youth more likely to report emotional distress” can also be explored using a crosstab by examining the percentage of each sexual identity that self-reported signs of emotional distress as “feeling sad and hopeless”. To explore whether or not sexual minority youth report more experiencing peer aggression, a crosstab will be performed to examine the percentages of each sexual identity that reported each of the types of peer aggression (having safety concerns, being threatened with a weapon at school, being bullied, being e-bullied and being in fights in school).

To further explore the relationship between sexual identity and suicidality and to examine whether youth who experience peer aggression are more likely to report suicidality, a logistic regression will be performed with four individual models for each suicidality indicator (ideation, plan and attempt). The first model will predict the odds of reporting suicidality among youth with identity characteristics (sexual identity and race) and controls (age, sex). The second model

will predict suicidality among youth by identity characteristics (sexual identity and race) peer aggression variables (safety concerns, threatened with a weapon, getting in fights, being bullied and being e-bullied) and controls (age, sex). The third model will predict suicidality among youth by identity characteristics (sexual identity and race), peer aggression variables (safety concerns, threatened with a weapon, getting in fights, being bullied and being e-bullied), emotional distress (feeling sad or hopeless and controls (age, sex). The fourth model will predict suicidality among youth by identity characteristics (sexual identity, race), peer aggression (safety concerns, threatened with a weapon, getting in fights, being bullied and being e-bullied), emotional distress (feeling sad or hopeless) and by race/sexual identity interaction terms to explore race differences in the associations between sexual identity and suicidality.

CHAPTER 5

5.1 RESULTS

5.1.1 Bivariate Analysis

5.1.1.1 Suicidality by Sexual Identity

Self-reported experiences of suicidality by sexual identity were explored using bivariate analysis, demonstrating that sexual minorities report higher frequencies of suicidality than the heterosexual reference group. A crosstab was performed to examine the relationship between sexual identity and suicidal ideation. Overall, 17.7% of the sample reported that they had considered attempting suicide. Heterosexual youth reported lower levels of suicidal ideation than their sexual minority counterparts, with 13.1% (n=1089) reporting suicidal ideation. Gay or Lesbian youth reported suicidal ideation at a much higher rate (42.9%, n=93). Bisexual youth reported the highest level of suicidal ideation, with 50.9% (n= 406) reporting having considered suicide. Questioning youth reported lower levels of suicidal ideation than their sexual minority peers but reported higher levels than their Heterosexual peers with 17.7% (n= 130) of questioning youth reporting suicidal ideation. The Chi Square value was 890.037 and was significant at $p < .001$, suggesting that sexual identity is significantly associated with suicidal ideation. (Table B.1 presented in Appendix B).

A second crosstab was performed to examine the relationship between sexual identity and suicide plan. Out of the Heterosexual youth, 10.10% (n=840) reported having developed a suicide plan. Of the Gay or Lesbian youth, 34.3% (n=74) reported having developed a suicide plan. Bisexual youth reported the highest incidence of suicide plan, with 40.90% (n=326) reporting the development of a suicide plan. Questioning youth reported a lower percentage of

suicide planning than their other sexual minority peers, with 13.8% (n=103) reporting the development of a suicide plan. The Chi Square value was 723.113 at $p < .001$, suggesting a statistically significant relationship between sexual identity and development of a suicide plan. (Table B.1 presented in Appendix B).

A third crosstab was performed to examine the relationship between sexual identity and suicide attempt. Among heterosexual youth, 5.1% (n=422) reported having attempted suicide during the last twelve months. Gay or Lesbian youth reported higher percentages of suicide attempt, with 15.2% (n=33) reporting having attempted suicide. Bisexual youth reported the highest incidence of suicide attempt, with 23.4% (n=187) reporting having attempted suicide. While Bisexual youth only account for 8.2% of the total sample, they constitute almost 1/3 of the reported suicide attempts overall. Questioning youth reported lower rates of suicide attempt than their other sexual minority peers but were still more than twice as likely as their Heterosexual peers to report attempts, with 12% (n=44) having attempted suicide. The Chi Square value was 410.705 at $p < .001$, suggesting that there is a significant relationship between sexual identity and attempting suicide. (Table B.1 presented in Appendix B).

5.1.1.2 Peer Aggression by Sexual Identity

Peer aggression was explored by sexual identity, revealing that sexual minority youth report higher percentages of peer aggression than their Heterosexual peers. A crosstab was performed to examine the relationship between the sexual identity of youth and their incidence of being threatened at school. Heterosexual youth reported the lowest percentage of being threatened at school, with only 5% (n=420) indicating that they had been threatened. Gay or Lesbian youth reported a higher percentage, with 6% (n=13) reporting having been threatened at school. Bisexual youth reported higher levels of threatening at school, with 8.4% (n=67) of

Bisexual youth reporting having been threatened at school. Questioning youth reported that 6.8% (n=25) of them had been threatened at school. The Chi Square value was 17.610 at $p < .01$, suggesting a significant relationship between sexual identity and being threatened at school. (Table B.1 presented in Appendix B).

A crosstab was performed to examine the relationship between sexual identity and experiences of being bullied at school. Heterosexual youth reported the lowest percentage experiencing bullying at school, with 17.6% (n=1,463) reporting having been bullied. Gay or Lesbian youth reported bullying at almost twice the rate of their heterosexual peers, with 31.3% (n=68) of youth reporting that they had experienced bullying at school. Bisexual youth reported being bullied the most, with 36.3% (n=290) of Bisexual youth reported experiencing bullying at school. More questioning youth reported being bullied than Heterosexual youth, but the percentage reporting was 24% (n=88), lower than their other sexual minority peers. The Chi Square value was 185.904, significant at $p < .001$, suggesting a significant relationship between sexual identity and reporting being bullied at school. (Table B.1 presented in Appendix B).

A crosstab was performed to examine the relationship between sexual identity and experiences of electronic bullying. Among Heterosexual youth, 13.8% (n=1,180) reported being electronically bullied. Gay or Lesbian youth reported that 18.4% (n=40) had experienced electronic bullying. Bisexual youth reported that 30.7% or (n=245) of them had been electronically bullied. Questioning youth reported that 22.6% of them (n=83) had experienced electronic bullying. The Chi Square value was 180.51 at $p < .001$, suggesting a significant relationship between sexual identity and experiencing electronic bullying. (Table B.1 presented in Appendix B).

A crosstab was performed to examine the relationship between sexual orientation and engaging in fighting with peers. Heterosexual youth reported that 22.5% (n=1,873) had engaged in fighting with peers. Gay or Lesbian youth reported that 19.9% (n=43) had engaged in fighting with peers. Bisexual youth reported that 28.2% (n=225) had engaged in fighting with peers. Questioning youth reported that 22.8% (n=212) had engaged in fighting with peers. The Chi Square value was 17.13 at $p < .01$, suggesting a statistically significant relationship between sexual identity and engaging in fights with peers. While fighting has been used in previous studies as a measure of peer aggression, the results suggest different factors contributing to the incidence of fights among youth. In terms of the exploration of peer aggression for sexual minority youth, engaging in fights has a reverse relationship to sexual identity as the other dimensions of peer aggression. (Table B.1 presented in Appendix B).

Lastly, a crosstab was performed to examine the relationship between sexual identity and safety concerns at school. Heterosexual youth reported that 5.6% had safety concerns at school (n=469). Just over nine percent of Gay or Lesbian youth (n=20) and Bisexual youth (n=73) reported that they had safety concerns at school. Among Questioning youth, 7.4% (n=25) reported that they had safety concerns at school. The Chi Square value was 20.859 at $p < .001$, suggesting a statistically significant relationship between sexual identity and having safety concerns at school. (Table B.1 presented in Appendix B).

5.1.1.3 Emotional Distress by Sexual Identity

A crosstab was performed to examine emotional distress by sexual identity. Among Heterosexual youth, 27.6% (n=2,300) had felt sad or hopeless for at least two weeks in the last twelve months. Among Gay or Lesbian, 56.5% (n=122) reported that they had felt sad or hopeless for at least two weeks in the last twelve months. Among Bisexual youth, 66.4%

(n=530) reported feeling sad or hopeless for at least two weeks in the last twelve months, and 49.6% of Questioning youth (n=182) reported feeling sad or hopeless for at least two weeks in the last twelve months. The Chi Square value was 615.58 ($p < .001$), suggesting a statistically significant relationship between sexual identity and feeling sad and hopeless. (Table B.1 presented in Appendix B).

5.1.1.4. Sexual Identity and Other Student Characteristics

A crosstab was performed to examine the relationship between sexual identity and race/ethnicity. Among White non-Hispanic youth, 85.9% (n=4,611) identified as Heterosexual, 2.1% (n=112) identified as Gay or Lesbian, 8% (n=431) identified as Bisexual, and 4% (n=212) identified as Questioning. Among Black non-Hispanic youth, 82.3% (n=880) identified as Heterosexual, 3% (n=32) identified as Gay or Lesbian, 10.7% (n=114) identified as Bisexual, and 4% (n=43) identified as Questioning. Among Hispanic/Latinx youth, 86.8% (n=1,928) identified as Heterosexual, 2.3% (n=32) identified as Gay or Lesbian, 7.3% (n=162) identified as Bisexual, and 3.6% (n=80) identified as Questioning. Among other non-Hispanic youth, 86.2% (n=905) respondents identified as Heterosexual, 2.1% (n=22) identified as Gay or Lesbian, 8.7% (n=91) identified as Bisexual, and 3% (n=32) identified as Questioning. The Chi Square value was 18.029 at $p < .05$, suggesting a statistically significant relationship between sexual identity and race/ethnicity. A larger percentage of White non-Hispanic youth identify as Bisexual than other race/ethnicities. (Table B.2 presented in Appendix B).

Age corresponded to shifts in sexual identity reporting, such that fewer respondents identified as “Questioning” in each subsequent age category. A Chi Square was performed to examine the relationship between sexual identity and age. Among 12 to 14 year-old youth, 83.3% (n=949) identified as Heterosexual, 2.1% (n=24) identified as Gay or Lesbian, 8.6%

(n=98) identified as Bisexual, and 6% (n=68) identified as Questioning. Among 15 to 16 year-old youth, 85.3% (n=4,163) identified as Heterosexual, 2.2% (n=109) identified as Gay or Lesbian, 8.6% (n=421) identified as Bisexual, and 3.8% (n=185) identified as Questioning. Among youth that were age 17 or older, 87% (n=3,211) identified as Heterosexual, 2.2% (n=216) identified as Gay or Lesbian, 7.6% (n=280) identified as Bisexual, and 3.1% (n=115) identified as Questioning. The Chi Square value was 23.342 at $p < .001$, suggesting a statistically significant relationship between age and sexual identity. It should be noted that there was a relationship between sexual identity and age such that fewer older respondents identified as Questioning than younger respondents. This supports previous literature that discusses the development of sexual identity through adolescence and youth (Baams and Dubas, 2017; Jones et al., 2013). (Table B.2 presented in Appendix B).

Females were more likely than males to identify as sexual minorities among the youth in the sample. According to the crosstab that was performed to examine the relationship between the sex of the youth and their sexual identity, male youth, 92.1% (n=4,375) identified as Heterosexual, 2.2% (n=104) identified as Gay or Lesbian, 2.9% (n=140) identified as Bisexual, and 2.8% (n=133) identified as Questioning. Among female youth, 79.7% (n=3,948) identified as Heterosexual, 2.3% (n=113) identified as Gay or Lesbian, 13.3% (n=658) identified as Bisexual, and 4.7% (n=235) identified as Questioning. The Chi Square value was 382.759 at $p < .001$, suggesting a statistically significant relationship between sex and sexual identity. (Table B.2 presented in Appendix B).

5.1.1.5 Suicidality by Sexual Identity and Race/Ethnicity

A crosstab was performed to examine the incidence of suicidal ideation by sexual identity and race/ethnicity to determine if there was any disparity in ideation by race/ethnicity. Overall,

there was a statistically significant relationship between suicidal ideation and sexual identity for youth from all racial/ethnic groups. Bisexual youth reported the highest percentage of suicidal ideation among sexual minority youth of White non-Hispanic, Hispanic/Latinx and Other non-Hispanic identities. Black Questioning youth reported a higher percentage of suicidal ideation than their peers of other race/ethnicities that identified as Questioning. The Chi Square value for White non-Hispanic youth was 593.12 ($p < .001$), suggesting a statistically significant relationship between suicidal ideation and sexual identity. The Chi Square value for Black non-Hispanic youth was 55.81 ($p < .001$), suggesting a statistically significant relationship between suicidal ideation and sexual identity. For Hispanic/Latinx youth, the Chi Square value was 185.11 ($p < .001$), suggesting a significant relationship between suicidal ideation and sexual identity. Among Other non-Hispanic youth, the Chi Square value was 109.57 ($p < .001$), suggesting a statistically significant relationship between suicidal ideation and sexual identity.

To explore whether developing a suicide plan varies by race/ethnicity for sexual minority youth, a crosstab was performed. Overall, there was a statistically significant relationship between suicide plan and sexual identity for youth across race/ethnicity. As with ideation, among Black non-Hispanic youth, Questioning youth reported a higher percentage of suicide plan than their Questioning peers of other races/ethnicities. Among White non-Hispanic youth, Hispanic/Latinx youth, and Other non-Hispanic youth, Bisexual youth reported the highest percentages of suicide plan. For White non-Hispanic youth, the Chi Square value was 499.18 ($p < .001$), suggesting a statistically significant relationship between suicide plan development and sexual identity. Among Black non-Hispanic youth, the Chi Square value was 64.46 ($p < .001$), suggesting a statistically significant relationship between suicide plan development and sexual identity. Among Hispanic/Latinx youth, the Chi Square value was 134.81 ($p < .001$), suggesting a

statistically significant relationship between suicide plan and sexual identity. Lastly, Other non-Hispanic Questioning youth reported that 31.3% (n=10) had developed a suicide plan. Among Other non-Hispanic youth, the Chi Square value was 77.32 ($p < .001$), suggesting a statistically significant relationship between suicide plan and sexual identity.

To explore whether suicide attempts vary by race/ethnicity for sexual minority youth, a crosstab was performed. Again, there was a statistically significant relationship between suicide attempt and sexual identity for youth from all racial/ethnic groups. Among White non-Hispanic youth, Hispanic/Latinx youth, and Other non-Hispanic youth, Bisexual youth reported the highest percentages of suicide attempt. Among Black non-Hispanic youth, those with a Questioning identity reported the highest percentage of suicide attempt. Among White non-Hispanic youth, the Chi Square value was 593.12 ($p < .001$), suggesting a statistically significant relationship between suicide attempt and sexual identity. Among Black non-Hispanic youth, the Chi Square value was 58.81 ($p < .001$), suggesting a statistically significant relationship between suicide attempt and sexual identity. Among Hispanic/Latinx youth, the Chi Square value was 185.11 ($p < .001$), suggesting a statistically significant relationship between suicide attempt and sexual identity. Among Other non-Hispanic youth, the Chi Square value was 109.57 ($p < .001$), suggesting a statistically significant relationship between suicide attempt and sexual identity. (Please see B.3 in Appendix B).

5.1.1.6. Peer Aggression by Sexual Identity and Race/Ethnicity

To explore whether having safety concerns vary by race/ethnicity for sexual minority youth, a crosstab was performed. There was no significant relationship between having safety concerns and sexual identity for Black non-Hispanic and Other non-Hispanic youth. In terms of having safety concerns at school, 4.4% (n=204) of White non-Hispanic heterosexual reported

they had safety concerns compared to 6.3% (n=7) of White non-Hispanic Gay or Lesbian youth 6.3% (n=7). White non-Hispanic Bisexual youth reported that 9.3% (n=40) had safety concerns at school. White non-Hispanic Questioning youth reported that 4.7% (n=10) had safety concerns at school. The Chi Square value was 20.57 ($p < .001$), suggesting that for White non-Hispanic youth, having safety concerns at school is statistically significantly related to sexual identity. Hispanic/Latinx Heterosexual youth reported that 7.7% (n=148) had safety concerns at school, compared to 11.8% (n=6) of Hispanic/Latinx Gay or Lesbian youth. Hispanic/Latinx Bisexual youth reported that 12.3% (n=20) had safety concerns at school and Hispanic/Latinx Questioning youth reported that 13.8% (n=11) had safety concerns at school. The Chi Square value for Hispanic/Latinx youth was 8.33 ($p < .05$), suggesting a statistically significant relationship between having safety concerns at school and sexual identity among Hispanic/Latinx youth.

In terms of bullying, all racial groups of youth had a statistically significant relationship between being bullied and sexual identity, such that sexual minority youth reported higher percentages of bullying than their Heterosexual peers. White non-Hispanic Heterosexual youth reported that 19.6% (n=903) had been bullied at school, compared to 39.3% (n=44) of White non-Hispanic Gay or Lesbian youth and 42.7% (n=184) of White non-Hispanic Bisexual youth. For all racial/ethnic groups, sexual minorities reported more bullying than heterosexual youth. Among White non-Hispanic youth, the Chi Square value was 142.98 ($p < .001$), suggesting a statistically significant relationship between being bullied and sexual identity. For Black non-Hispanic youth, the Chi Square value was 8.44 ($p < .05$), suggesting a statistically significant relationship between being bullied and sexual identity. The Chi Square value for Hispanic/Latinx youth was 42.31 ($p < .001$), suggesting a statistically significant relationship between sexual identity and being bullied at school. For Other non-Hispanic youth, the Chi Square value was

25.78 ($p < .001$), suggesting a statistically significant relationship between being bullied and sexual identity. However, Bisexual youth reported the highest levels of bullying among White non-Hispanic youth, while Questioning youth reported the highest levels among Black non-Hispanic youth and Gay or Lesbian youth reported the highest levels among Other non-Hispanic youth.

For electronic bullying, all racial/ethnic groups of youth had a statistically significant relationship between electronic bullying and sexual identity. For White non-Hispanic youth, the Chi Square value was 162.43 ($p < .001$), suggesting a statistically significant relationship between being electronically bullied and sexual identity. For Black non-Hispanic youth, the Chi Square value was 8.18 ($p < .05$), suggesting a statistically significant relationship between being electronically bullied and sexual identity. For Hispanic/Latinx youth, the Chi Square value was 45.1 ($p < .001$), suggesting a statistically significant relationship between being electronically bullied and sexual identity. For Other non-Hispanic youth, the Chi Square value was 11.56 ($p < .01$), suggesting a statistically significant relationship between being electronically bullied and sexual identity. Similar to bullying, Bisexual youth had the highest reports of electronic bullying among White non-Hispanic youth while Questioning youth had the highest reports among Black non-Hispanic, Hispanic/Latinx, and Other non-Hispanic youth.

In terms of getting in fights with peers, Hispanic/Latinx youth were the only group to have a significant relationship between getting in fights and sexual identity. Hispanic/Latinx heterosexual youth reported 25% ($n=481$) had been in a fight. Hispanic/Latinx Gay or Lesbian youth report 21.6% ($n=11$) had been in a fight. Hispanic/Latinx Bisexual youth report 35.2% ($n=57$) had been in a fight. Hispanic/Latinx Questioning youth report 26.3% ($n=21$) had been in

a fight. Among Hispanic/Latinx youth, the Chi Square value was 8.66 ($p < .05$), suggesting a statistically significant relationship between getting in a fight and sexual identity.

In terms of being threatened at school with a weapon, 4.2% ($n=195$) White non-Hispanic heterosexual youth reported being threatened at school. White non-Hispanic Gay or Lesbian youth reported 3.6% ($n=4$) had been threatened at school. White non-Hispanic Bisexual youth reported 8.4% ($n=36$) had been threatened at school. White non-Hispanic Questioning youth reported 8.5% ($n=18$) had been threatened at school. Among White non-Hispanic youth, the Chi Square value was 22.17 ($p < .001$), suggesting a statistically significant relationship between being threatened at school and sexual identity. Black non-Hispanic, Hispanic/Latinx and Other non-Hispanic youth did not have a statistically significant relationship between being threatened at school with a weapon and sexual identity. (Please see B.4 in Appendix B).

5.1.1.7 Emotional Distress by Sexual Identity and Race/Ethnicity

A crosstabulation was performed to examine emotional distress by sexual identity and race ethnicity. Overall, little racial difference was observed in the relationship between emotional distress and sexual identity for youth. White non-Hispanic Gay or Lesbian youth reported that 57.1% ($n=64$) had felt sad or hopeless, compared to 68.4% ($n=295$) of White non-Hispanic Bisexual youth, 45.8% ($n=97$) of White non-Hispanic Questioning youth, and 26.4% of White non-Hispanic Heterosexual youth. A similar pattern was seen among other racial/ethnic groups, as feeling sad or hopeless was reported in the highest percentages for Bisexual youth of White non-Hispanic, Black non-Hispanic and Hispanic/Latinx race/ethnicities. Other non-Hispanic Gay or Lesbian youth reported the highest percentage of feeling sad or hopeless among their race/ethnicity. The Chi Square value for White non-Hispanic youth was 383.38 ($p < .001$), suggesting that emotional distress has a statistically significant relationship with sexual identity

for White non-Hispanic youth. The Chi Square value for Black non-Hispanic youth was 70.53 ($p < .001$), suggesting that there is a statistically significant relationship between emotional distress and sexual identity for Black non-Hispanic youth. The Chi Square value for Hispanic/Latinx youth was 108.9 ($p < .001$), suggesting that there is a statistically significant relationship between sexual identity and emotional distress for Hispanic/Latinx youth. The Chi Square value was 73.89 ($p < .001$), suggesting that there is a statistically significant relationship between emotional distress and sexual identity for Other non-Hispanic youth. (Please see B.4 in Appendix B).

5.2 Multivariate Analysis

5.2.1 Suicidal Ideation

A logistic regression analysis was performed to evaluate how well the youth characteristics of sexual identity, race/ethnicity, sex, and age predict suicidal ideation (See Table C.1 in Appendix C). The Hosmer and Lemeshow for this model was not significant and the Nagelkerke r-square was 0.139, suggesting a good fit for the model. The model also accurately predicted 82.3% of the cases observed. The findings from Model 1 ($p < .001$), suggest that sexual identity is significantly associated with the odds of reporting suicidal ideation during the past 12 months. Gay or Lesbian youth had an odds ratio of 5.08 ($p < .001$), indicating that they had five times greater odds of reporting suicidal ideation than their Heterosexual peers. Bisexual youth had an odds ratio of 5.86 ($p < .001$), suggesting almost six times the odds of reporting suicidal ideation than their Heterosexual peers. Questioning youth had an odds ratio of 3.43 ($p < .001$), suggesting almost 3.5 times the odds of reporting suicidal ideation than their Heterosexual peers. Black non-Hispanic youth had an odds ratio of 0.68 ($p < .001$), suggesting 32% lower odds of reporting suicidal ideation than their White non-Hispanic peers. Hispanic/Latinx youth had an

odds ratio of 0.94, suggesting 6% lower odds of reporting suicidal ideation than their White non-Hispanic peers, but this finding was not statistically significant. Other non-Hispanic youth had an odds ratio of 1.21, suggesting 21% higher odds of reporting suicidal ideation than their White non-Hispanic peers. Female youth had an odds ratio of 1.83 ($p < .001$), suggesting 81% higher odds of reporting suicidal ideation than their male peers.

For Model 2, a logistic regression was performed to examine the odds of suicidality shaped by identity characteristics and experiences of peer aggression (See Model 2 in Table C.1 in Appendix C). The analysis was performed to predict the odds of suicidal ideation by sexual identity, race/ethnicity, being threatened at school, being in a physical fight, being bullied at school, being electronically bullied, and having safety concerns at school. With a Nagelkerke r -square of 0.23 and a non-significant Hosmer and Lemeshow test, the model was a good fit for the covariates, accurately predicting 83.3% of cases observed. Peer aggression corresponded to increased odds of suicidal ideation. Youth who reported being threatened at school had an odds ratio of 1.67 ($p < .001$), suggesting 67% higher odds of reporting suicidal ideation than those who did not. Youth who reported getting in physical fights had an odds ratio of 1.75 ($p < .001$), suggesting 75% higher odds of reporting suicidal ideation than those who did not. Youth who reported being bullied at school had an odds ratio of 2.14 ($p < .001$), or twice the odds of reporting suicidal ideation as those who did not. Youth who reported being electronically bullied had an odds ratio of 1.81 ($p < .001$), suggesting 81% higher odds of reporting suicidal ideation than youth who did not. Youth who reported having safety concerns at school had an odds ratio of 1.75 ($p < .001$), suggesting 75% higher odds of reporting suicidal ideation than those who did not.

After controlling for peer aggression, sexual identity remains significantly associated with suicidal ideation. Gay or Lesbian youth had an odds ratio of 5.04 ($p < .001$), or five times the

odds of reporting suicidal ideation as their Heterosexual peers. With an odds ratio of 5.05 ($p < .001$), Bisexual youth had an odds ratio of 5.05 ($p < .001$), suggesting five times the odds of reporting suicidal ideation as their Heterosexual peers. Questioning youth had almost an odds ratio of 3.48 ($p < .001$), suggesting 3.5 times the odds of reporting suicidal ideation than their Heterosexual peers. Between Models 1 and 2, there was little reduction in effect size, suggesting that the association between suicidal ideation and sexual identity is not explained by peer aggression for Gay or Lesbian and Questioning youth. Bisexual youth experienced a 8.4% reduction in effects size between Models 1 and model 2 for suicidal ideation, suggesting that peer aggression may help to explain the association between suicidal ideation and sexual identity among Bisexual youth.

Model 3 adds a measure for emotional distress to the model predicting suicidal ideation with identity characteristics and peer aggression to examine how suicidal ideation varies by sexual identity and emotional distress. The Hosmer and Lemeshow was not significant and the Nagelkerke r-square was 0.40, suggesting a good model fit. The model accurately predicted 84.2% of the cases. Emotional distress corresponded over ten times the odds ($p < .001$) of reporting suicidal ideation, suggesting that experiencing emotional distress places youth at significantly higher risk of suicidal ideation. After controlling for emotional distress, sexual identity remains significantly associated with suicidal ideation. Gay or Lesbian youth had 3.5 times the odds of reporting suicidal ideation as their Heterosexual peers ($p < .001$), Bisexual youth had almost four times the odds of reporting suicidal ideation as their Heterosexual peers ($p < .001$), and Questioning youth had almost three times the odds of reporting suicidal ideation as their Heterosexual peers ($p < .001$). However, the estimated effect of being Gay or Lesbian or being was reduced between models 2 and 3, and the estimated effect of Questioning was reduced

by 18.4% between models 2 and model 3. This reduction in effect size suggests that emotional distress may help to explain the association between sexual identity and suicidal ideation for Gay/Lesbian, Bisexual, and Questioning youth. (Model 3 presented in Appendix C.1).

Model 4 adds race interactions to the model predicting suicidal ideation with identity characteristics, peer aggression, and emotional distress to examine how the association between sexual identity and suicidal ideation varies by race. The Hosmer and Lemeshow for this model was not significant and the Nagelkerke r-square was 0.40, suggesting that the model was a good fit for the covariates. Note that only one of the racial identity and sexual identity interactions was statistically significant, suggesting that disparities in suicidal ideation by sexual identity do not vary significantly by race. There was one significant and negative interaction between being Black non-Hispanic and Bisexual ($p < .001$) indicating that the difference in suicidal ideation between Bisexual and Heterosexual youth is smaller among Black non-Hispanic youth relative to their White non-Hispanic peers.

5.2.2 Suicide Plan

A logistic regression was performed to predict the odds of reporting development of a suicide plan by identity characteristics (Table C.2 in Appendix C). Overall, sexual minority youth demonstrated significantly higher odds of developing a suicide plan than their Heterosexual peers, with Bisexual youth having the highest odds of reporting a suicide plan. The Nagelkerke r-square was 0.12 and the Hosmer and Lemeshow test was not significant, suggesting a good fit of the model. This model accurately predicted 86.2% of cases. The odds ratio for Gay or Lesbian youth was 4.71 ($p < .001$), indicating that Gay or Lesbian youth have almost five times the odds of reporting having developed a suicide plan than their Heterosexual peers. Bisexual youth had an odds ratio of 5.35 ($p < .001$), having 5.3 times higher odds of

reporting development of a suicide plan than their Heterosexual peers. Questioning youth had an odds ratio of 3.31 ($p < .001$), having almost 3.5 times the odds of reporting suicidal ideation as their Heterosexual peers.

Turning to racial/ethnic identity, Black Non-Hispanic youth and Hispanic/Latinx youth were not significantly different from their White non-Hispanic peers in terms of suicide plan development. Other non-Hispanic youth had an odds ratio of 1.53 ($p < .001$), having 53% higher odds of reporting development of a suicide plan than their peers who did not. Female youth had an odds ratio of 1.66 ($p < .001$), suggesting that females have almost 60% greater odds of reporting a suicide plan than their male peers. (Please see Model 1 presented in Appendix C.2).

Model 2 explored whether the odds of reporting a suicide plan vary by identity characteristics and peer aggression. Sexual minority youth had higher odds of reporting suicide plan development than their heterosexual peers, with Gay or Lesbian youth being the most likely to report the development of a suicide plan net of other factors. The Nagelkerke r-square was 0.20 and the Hosmer and Lemeshow test was not significant, suggesting a good fit of model. This model accurately predicted 86.9% of cases. With an odds ratio of 4.55 ($p < .001$), Gay or Lesbian youth had almost five times the odds of reporting development of a suicide plan than their Heterosexual peers. Bisexual youth had an odds ratio 4.50 ($p < .001$), suggesting that bisexual youth have 4.5 times the odds of reporting development of a suicide plan than their Heterosexual peers. . Questioning youth had an odds ratio of 3.29 ($p < .001$), suggesting that questioning youth have approximately 3 times the odds of reporting development of a suicide plan than their Heterosexual peers. . The odds ratio for youth who reported being threatened at school with a weapon was 1.49 ($p < .01$), suggesting that they have 49% higher odds of developing a suicide plan than those who have not been threatened. Youth who reported physical

fighting had an odds ratio of 1.79 ($p < .001$), suggesting that they have 79% higher odds of developing a suicide plan than those who had not been in fights. The odds ratio for youth who said they had been bullied at school was 2.07 ($p < .001$), suggesting that they have double the odds of developing a suicide plan as youth who have not been bullied. The odds ratio for youth who reported being electronically bullied was 1.67 ($p < .001$), suggesting that they have 67% higher odds of developing a suicide plan than those who didn't report being e-bullied. The odds ratio for youth who indicated having safety concerns was 1.87 ($p < .001$), suggesting that youth with safety concerns had 87% higher odds of developing a suicide plan than those who do not. When considering the role that peer aggression may play in the association between sexual identity and suicide plan, there was little reduction in effect size between models 1 and 2 for Gay or Lesbian and Questioning youth, suggesting the relationship between sexual identity and suicide plan development cannot be explained by peer aggression. For Bisexual youth, there was a 10.1% reduction in effect size between models 1 and model 2, suggesting that for Bisexual youth, suicide plan development and sexual identity are influenced by experiences of peer aggression.

Model 3 explored whether the odds of reporting the development of a suicide plan vary by identity characteristics, peer aggression, and emotional distress (Table C.2 in Appendix C). The Hosmer and Lemeshow was not significant and the Nagelkerke r-square was 0.33, suggesting a good fit of the model. This model accurately predicted 87.4% of the cases observed. As with identity characteristics and peer aggression models, sexual minority youth consistently had higher odds of reporting a suicide attempt than their Heterosexual peers, with Bisexual youth having the highest odds, even after controlling for emotional distress. Gay or Lesbian youth had an odds ratio of 3.15 ($p < .001$), suggesting three times the odds of developing a suicide plan as

their Heterosexual peers. Bisexual youth had an odds ratio of 3.20 ($p < .001$), suggesting that they have over three times the odds of developing a suicide plan as their Heterosexual peers. Questioning youth had an odds ratio of 2.57 ($p < .001$), suggesting that they have 2.7 times the odds of developing a suicide plan as their Heterosexual peers. Other non-Hispanic youth had 56% higher odds ($p < .001$) of reporting a suicide plan than their White non-Hispanic peers. Youth who reported feeling sad or hopeless for at least two weeks in the last month had almost eight times of the odds ($p < .001$) of reporting a suicide plan as their peers who had not reported experiencing emotional distress. The association between sexual identity and suicide plan was reduced in size for all sexual minority groups between Models 2 and 3, suggesting that emotional distress may help to explain suicide plan development for Gay or Lesbian, Bisexual, and Questioning youth. (Please see Table C.2 presented in Appendix C).

Model 4 examined race interactions to examine if the association between sexual identity and suicide plan varies by race. (Table C.2 in Appendix C). The Hosmer and Lemeshow for this model was not significant and the Nagelkerke r-square was 0.33, suggesting that the model was a good fit for the covariates. Model 4 suggests that overall, the association between sexual identity and suicide plan development do not vary significantly by race. There was one significant and negative interaction between being Black non-Hispanic and Bisexual ($p < .001$) indicating that the difference in suicide plan development between Bisexual and Heterosexual youth is smaller among Black non-Hispanic youth relative to their White non-Hispanic peers.

5.2.3 Suicide Attempt

Model 1 was performed to examine how the odds of attempting suicide vary by identity characteristics (See Table C.3 in Appendix C). The Hosmer and Lemeshow test was not significant and the Nagelkerke r-square was 0.09, suggesting a good fit of the model. The model

accurately predicted 92.9% of cases observed. Sexual minority youth had the highest odds of reporting a suicide attempt overall, with Gay or Lesbian youth reporting the highest odds. Gay or Lesbian youth had an odds ratio of 3.28 ($p < .001$), suggesting that Gay or Lesbian youth have three times higher odds of reporting a suicide attempt than their Heterosexual peers. Bisexual youth had an odds ratio of 4.78 ($p < .001$), suggesting that they had almost five times higher odds of reporting a suicide attempt than their Heterosexual peers. Questioning youth had an odds ratio of 2.29 ($p < .001$), suggesting that they have double the odds of reporting a suicide attempt as their Heterosexual peers.

In terms of race/ethnicity, Black non-Hispanic youth were not significantly different from their White non-Hispanic peers. Hispanic/Latinx youth had an odds ratio of 1.30 ($p < .05$), suggesting that they have 30% higher odds of reporting a suicide attempt than their White non-Hispanic peers. Other non-Hispanic youth had an odds ratio of 1.49 ($p < .001$), suggesting that they have 49% higher odds of reporting a suicide attempt than their White non-Hispanic peers. Female youth had an odds ratio of 1.78 ($p < .001$), suggesting that they have 78% higher odds of reporting a suicide attempt than their male peers. Among 12 to 14 year-old youth, the odds ratio was 1.47 ($p < .001$), suggesting that younger respondents have 47% higher odds of attempting suicide than their 15 to 16 year-old peers. Among 17+ year-old youth, the odds ratio was 0.83, ($p < .05$) suggesting 17% lower odds of reporting suicide attempt than their 15 to 16 year-old peers. (Please see Model 1 presented in Appendix D.3).

Model 2 was performed to see if suicide attempt varies by identity characteristics and peer aggression. (See Table C.3 in Appendix C). The Hosmer and Lemeshow test was not significant and the Nagelkerke r-square was 0.22, suggesting a good fit of the model. The model accurately predicted 93.2% of cases observed. Youth who reported being threatened at school

had an odds ratio of 1.88 ($p < .001$), suggesting that they have 88% higher odds of reporting a suicide attempt than youth who had not been threatened at school. With an odds ratio of 2.43 ($p < .001$), youth who reported getting in fights had almost 2.5 times the odds of reporting a suicide attempt as those who did not report getting in fights. With an odds ratio of 2.19 ($p < .001$), youth who reported being bullied at school had twice the odds of reporting a suicide attempt as those who did not experience bullying. Youth who reported being electronically bullied had an odds ratio of 1.87 ($p < .001$), suggesting that youth who experience e-bullying have 86% higher odds of reporting a suicide attempt than those who did not. Youth who reported having safety concerns at school had an odds ratio of 2.34 ($p < .001$), suggesting that they have almost 1.5 times the odds of reporting a suicide attempt as youth who did not have safety concerns at school. Even after controlling for peer aggression, sexual identity remains significantly associated with suicide attempt. Gay or Lesbian youth have three times the odds of reporting a suicide attempt as their Heterosexual peers ($p < .001$), Bisexual youth had nearly four times the odds of reporting a suicide attempt as their Heterosexual peers ($p < .001$), and Questioning youth had double the odds of reporting a suicide attempt as their Heterosexual peers ($p < .001$). There was no change significant change in odds of reporting suicide attempt by race/ethnicity with the introduction of peer aggression. There was little reduction in effect size for Gay or Lesbian and Questioning youth between models 1 and model 2. This suggests that peer aggression does not influence the relationship between sexual identity and suicide attempt for Gay or Lesbian and Questioning youth. Among Bisexual youth, there was a 14.7% reduction in effect size between model 1 and model 2, suggesting that peer aggression may help to explain the association between suicide attempt and sexual identity for Bisexual youth. (Please see Model 2 presented in Appendix D.3).

Model 3 was performed to see if suicide attempt varies by sexual identity, peer aggression, and emotional distress (Please see Table C.3 in Appendix C). The Nagelkerke r-square for the model was 0.31 and the Hosmer and Lemeshow test was not significant, suggesting a good fit of the model. This model accurately predicted 93.2% of cases observed. Youth who reported feeling sad or hopeless had an odds ratio of 7.72 ($p < .001$), suggesting that they have nearly eight times the odds of reporting a suicide attempt as youth who do not. As with the previous outcomes, sexual identity is significantly associated with suicide attempt even after controlling for emotional distress. Bisexual youth reported the highest odds of reporting a suicide attempt given the introduction of emotional distress. Gay or Lesbian youth had double the odds of reporting a suicide attempt as their Heterosexual peers ($p < .01$), Bisexual youth had almost three times the odds of reporting a suicide attempt as their Heterosexual peers ($p < .001$), and Questioning youth had 56% higher odds of reporting suicide attempts than their Heterosexual peers ($p < .05$). There was a 33.3% reduction in the association between sexual identity and suicide attempt between models 2 and model 3 for Gay or Lesbian youth, a 26.3% reduction in effect size for Bisexual youth, and a 41.3% reduction in effect size for Questioning youth. This suggests that emotional distress may help explain the association between sexual identity and emotional distress for sexual minority youth. (Please see Model 3 presented in Appendix C.3).

Model 4 looked for racial differences in suicide attempt by sexual identity (Table C.3 in Appendix C). The Hosmer and Lemeshow for this model was not significant and the Nagelkerke r-square was 0.31, suggesting that the model was a good fit for the covariates. There was a significant and negative interaction between being Black non-Hispanic and Bisexual ($p < .001$) indicating that the difference in suicide attempt between Bisexual and Heterosexual youth is smaller among Black non-Hispanic youth relative to their White non-Hispanic peers. There was

a significant and positive interaction between being Black non-Hispanic and Questioning ($p < .01$), indicating that the difference in suicide attempt between Questioning youth and Heterosexual youth is greater among Black non-Hispanic youth.

CHAPTER 6

6.1 DISCUSSION

This study sought to examine whether or not sexual minority youth were at greater risk of suicide than their Heterosexual peers, whether they reported more peer aggression and emotional distress than their peers, whether youth who experienced peer aggression reported more suicidality, and if these experiences vary by race. The findings of the study support the first hypothesis that sexual minority youth are at greater risk than their heterosexual peers of suicidality ($p < .001$). Bisexual youth have particularly high odds ($p < .001$) of reporting suicidal ideation and plan development compared to their heterosexual peers, supporting the study hypothesis (Espelage, 2014; Espelage et al., 2018; Hatzenbuehler, McLaughlin, & Xuan, 2012; Marshal et al., 2013; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012; Porta et al., 2018). Gay or Lesbian youth had elevated odds across all models for predicting suicidal behavior ($p < .001$), consistent with the findings of previous studies (Espelage, 2014; Espelage et al., 2018). Questioning youth also had higher odds of reporting suicidality than their heterosexual peers. Findings also suggest that the association between sexual identity and suicidality was reduced among Bisexual youth after accounting for peer aggression. In addition, the association between sexual identity and suicidality was reduced after controlling for emotional distress for all sexual minority groups. When considering this finding combined with the bivariate finding of greater emotional distress among sexual minority youth relative to their heterosexual peers ($p < .001$), emotional distress appears to account for some of the relationship between sexual identity and suicidality. These findings were consistent with previous studies, which identify sexual minority youth as being at-risk for emotional distress ($p < .001$), thus supporting the second hypothesis

(Bostwick et al., 2014; Burton et al., 2013; Coulter et al., 2017; Kaufman et al., 2017; Mueller et al., 2015; Russel, 2003; Stone et al., 2014).

This study also found that sexual minority youth are more likely to report peer aggression, including being bullied, threatened at school, in a fight at school, and having safety concerns at school, relative to their heterosexual peers. Given the association between peer aggression and suicidality, sexual minority youth are thus at risk for suicidality, supporting the assertion of the CDC (Youth Risk Behavior Survey, 2017). Overall, the higher risk of suicide among sexual minority youth relative to their heterosexual peers is consistent across racial/ethnic groups, with a few exceptions. The disparity between Bisexual and heterosexual youth is smaller among White non-Hispanic than among Black non-Hispanic youth. However, Black non-Hispanic Questioning youth are at particularly high odds of reporting a suicide attempt. These findings suggest that there needs to be risk reduction targeted at this group of youth.

6.2. Theoretical Frameworks

The findings of this study support the previous research on peer aggression, especially when considering the experiences of Bisexual youth (Espelage, 2014; Espelage et al., 2018; Kaufman et al., 2017; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012; Russel, 2003), which suggest that it is one of the primary mechanisms for describing suicidality among sexual minority youth. While peer aggression accounted for a marginal reduction in effect size for Gay or Lesbian and Questioning youth, Bisexual youth's suicidality was associated with sexual identity and influenced by peer aggression. This supports previous studies (Bostwick et al., 2014), which suggest that sexual minority youth experiences vary by specific sexual identity.

By combining both the minority stress and intersectional frameworks to examine suicidal ideation, suicide plan, and suicide attempt among racially diverse sexual minority youth, disparities in intervention could be identified, supporting the hypothesis that experiences of suicidality among sexual minority youth vary by race. Since the minority stress framework applies to racially diverse sexually minority youth both for their racial/ethnic identity and their sexual identity, this framework as a good fit for exploring these disparities. Additionally, while causal mechanisms cannot be explored in a cross-sectional research design, disparities in mental health care utilization by race could account for the racial/ethnic differences in suicidal behavior among sexual minority youth.

6.3 Peer Aggression and Emotional Distress as Possible Mechanisms

Peer aggression corresponded to elevated odds of reporting suicidal behavior for Bisexual respondents across models, suggesting that the minority stress model is an appropriate framework with which to examine suicidal behavior among Bisexual youth (Espelage, 2014; Espelage et al., 2018; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012). These findings also support the hypothesis that experiencing peer aggression raises the odds of reporting suicidal behavior for all youth, but sexual minority youth reported higher levels of peer aggression overall compared to their heterosexual peers. These findings also suggest that as sexual minorities, Bisexual youth experience suicidality because of the association between sexual identity, peer aggression and emotional distress (Bostwick et al., 2014), supporting the application of the minority stress theoretical framework to examine disparities in suicidality between heterosexual and Bisexual (Espelage, 2014; Espelage et al., 2018; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012). In terms of predicting suicide for sexual minority youth, the minority stress framework addresses the structural, interpersonal, and personal factors that

are often co-occurring in the lives of heterosexual and Bisexual youth to increase these odds (Bostwick et al., 2014).

Among peer aggression indicators, getting into fights did produce increased odds of reporting suicidality, but was only significantly associated with sexual identity among Hispanic/Latinx youth. This indicator may not be the most appropriate for examining experiences of minority stress as peer aggression in further research because of the egalitarian connotation that “getting into a fight” invokes. Bullying asks youth to identify whether or not they have experiences incidences of bullying, which also include assault (Espelage, 2014; Espelage et al., 2018; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012). Since experiencing assault is more of a measure of minority stress as an experience of aggression from peers than getting into fights, fighting should be carefully considered before inclusion in future studies. Bullying, including assault, should be used in its place, because it captures the essence of being targeted, while fighting evokes a connotation of reciprocal engagement (Espelage, 2014; Espelage et al., 2018; Kaufman et al., 2017; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012).

Accounting for the proposed mechanisms of peer aggression and emotional distress reduced the association between sexual identity and suicidality, particularly for Bisexual youth. These findings support previous studies (Espelage, 2014; Espelage et al., 2018; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012), which suggest that youth who experience peer aggression do have higher odds of reporting suicidality. However, the association between suicidality and reporting a Gay/Lesbian or Questioning identity was not much reduced after controlling for peer aggression. While bivariate analysis revealed that sexual minority youth reported more peer aggression from peers than heterosexual youth, this finding did not

correspond to peer aggression describing as much of the association between suicidality and sexual identity as emotional distress for Gay or Lesbian and Questioning youth. The bivariate findings support the hypothesis that sexual minority youth report experiencing more peer aggression than their heterosexual peers (Espelage, 2014; Espelage et al., 2018; Kaufman et al., 2017; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012). These findings thus only partly support the previous research, which suggests that peer aggression is one of the primary mechanisms for predicting suicidality among sexual minority youth (Espelage, 2014; Espelage et al., 2018; Kaufman et al., 2017; Martin-Storey et al., 2015; Martin-Storey & Crosnoe, 2012; Russel, 2003).

Emotional distress was associated with elevated odds of reporting suicidal behavior across all models, elevating the odds to ten times for suicidal ideation, elevating the odds eight times for suicide plan and elevating the odds over seven times for suicide attempt. Bivariate analysis revealed that sexual minority youth are more likely to report emotional distress in the form of feeling sad or hopeless than heterosexual youth, supporting both the hypothesis that sexual minority youth are more likely to report emotional distress and the findings of previous studies (Burton et al., 2013; Martin-Storey & Crosnoe, 2012; Katz-Wise et al., 2017; Reisner et al., 2014; Seil et al., 2014; Talifero & Muelhenkamp, 2017; Williams & Chapman, 2012; Woodford et al., 2018). Additionally, findings support previous studies have identified experiencing emotional distress as a predictor of suicidality among sexual minority youth (Bostwick et al., 2014; Burton et al., 2013; Martin-Storey & Crosnoe, 2012)

6.4 The Intersection of Sexual Identity and Race/Ethnicity

When considering the interaction between sexual identity and race/ethnicity across logistic regression models, the overall pattern suggests that disparities by sexual identity are

fairly consistent across racial groups for both peer aggression and emotional distress. The disparity in suicide risk between Questioning and Heterosexual youth was even greater among Black and Hispanic/Latinx youth, relative to White youth. However, the disparity between Bisexual and Heterosexual youth was actually smaller among Black non-Hispanic youth. This suggests that the meaning or experience of sexual minority identities may be somewhat different for Black non-Hispanic youth. However, these findings did not fit the overall pattern, which indicates that disparities in suicide do not vary significantly by race (Bostwick et al., 2014; Chae & Walters, 2009; Cheng, Hitter, Adams, & Williams, 2016; Collins & Rocco, 2014; Shramko et al., 2018). While these findings suggest there may be something different about a Black Non-Hispanic Bisexual or Questioning youth experience or a Hispanic/Latinx Bisexual youth experience as being somehow different, the mechanism for this difference cannot be explored in terms of the current study.

6.2 Limitations

6.2.1 Research Design and Data

The research design provided an updated exploration of the YBRS 2017 dataset, but had omissions in gender indicators and did not follow respondents over time, to examine the long-term effects of sexual minority youth experience. The cross-sectional research design was a limitation to this study, as it cannot follow experiences of the respondents over time to identify mediating factors that can reduce the likelihood of reporting emotional distress or suicidal behavior. The cross-sectional research design provides no temporal consideration for the experiences of sexual minority youth, so causality for any outcome cannot be firmly established. Additionally, the YBRS does not include indicators about the home context, which previous studies utilizing the National Longitudinal Survey of Adolescent Health can examine. The

jurisdictional inclusion and exclusion of particular questions made it difficult to examine the topic with truly representative data, as individual states opted not to ask students about suicidal behavior. The decision to not participate may have been precipitated due to the survey questionnaire being administered in the school setting, where students are expected to learn and focus on curriculum. Two of the states that opted out of participating in the YRBS national sample included the politically liberal Pacific Northwest states of Oregon and Washington, which host the 2nd largest and 5th largest adult LGBTQ+ populations in the US respectively (Gates, 2011). The experiences of youth in this progressive region cannot be considered. Since the national dataset was used for this study, missing data from individual jurisdictions fails to enable this study to provide a truly accurate and comprehensive picture of suicidality among youth in general, more specifically sexual minority youth in all 50 US states. Additionally, many respondents selected to skip this question, even though there was an option to indicate that they had not engaged in suicidal behavior for each of the three indicators (ideation, plan and attempt).

In terms of examining the experiences of all sexual minorities (asexual, pansexual, polyamorous), and gender minorities (transgender, intersex, gender queer/fluid), this study was limited to examining LGBTQ experiences. A gender identity question was not included in the national questionnaire, only one that asked respondents to identify binary biological sex. This survey strategy is victim to binary thinking and development, because it does not consider gender identity as being separate from biological sex and the experiences of transgender or gender non-conforming youth who may identify as sexual minorities cannot be explored with this dataset.

Finally, due to the diversity of racial/ethnic identities that had to be combined into one category (Other non-Hispanic) for statistical analysis, the differences among these groups in

terms of the study variables cannot be explored. Due to the almost aggregate nature of this category, the findings for this demographic in the study sample were not statistically significant. Previous studies using state-level data from the YRBS have compiled subsequent years of data to explore the experiences of more racially/ethnically diverse youth. Additionally, the oversampling of Native American youth was only performed in two tribal jurisdictions, the Winnebago and the Cherokee Nation, so the tribal data was not entirely representative of the experiences of youth from diverse tribal nations with different ethnicities, which report variations in suicidality among sexual minority youth (Che & Walters, 2009).

CHAPTER 7

7.1 CONCLUSION

The presence of queer safe spaces in the school contexts has been demonstrated to reduce incidences of bullying by developing “strength in numbers”, which discourages victimization (Eisenberg, McMorris, Gower, & Chatterjee, 2016). By providing sexual minority youth with opportunities for positive and prosocial peer experiences, research has suggested that emotional distress can be decreased as well as experiences of minority stress (Eisenberg et al., 2016). According to the GLSEN National School Climate Survey 2017, approximately 50% of LGBTQ youth reported attending a school that had a Gay-Straight Student Alliance, with 51% of those students reporting consistent participation in the safe space. While GSAs can provide a mediation for the effects of peer aggression, not all students attend schools with GSAs or feel that their GSA at their school is inclusive (GLSEN National School Climate Survey, 2017). Previous literature suggests that White non-Hispanic sexual minority youth are more likely to attend schools that have functioning GSAs (GLSEN School Climate Survey, 2017). Additionally, the visibility of safe spaces and LGBTQ-affirming faculty promotes visibility and acknowledgement of sexual minorities, which corresponds to higher reports of wellbeing for sexual minority youth (Espelage, 2014; GLSEN National School Climate Survey, 2017). GSAs and safe spaces are designed to mitigate the negative effects of social isolation, stigma, and homophobia for sexual minority youth. Further longitudinal or qualitative studies can assess the mediation of safe spaces on experiences of peer aggression, emotional distress, and suicidality for sexual minority youth.

Anti-bullying policies and anti-harassment policies play a role in the overall mental health and social experiences of sexual minority youth by providing legislative and policy

support for sexual minorities. The presence of clear anti-bullying and anti-discrimination policies to protect sexual minorities may correspond to lower incidence of suicide among sexual minority youth living in those jurisdictions (Pearson, Wilkinson & Wooley-Snider, 2019). Sexual minority youth living in regions without state level protections against bullying or discrimination report higher incidences of emotional distress (Hatzenbeuhler & Rink (2014). The institutional role of providing protective legislation plays out in the school context via the scope of discriminatory behavior that sexual minority youth face. Having recourse in light of bullying or discrimination can provide sexual minority youth with feelings of acknowledgment while lacking resources can contribute to the cycle of rumination for sexual minority youth who are internalizing stigma and homophobia. Moving forward, studies that explore the relationship between LGBTQ anti-discrimination and bullying policies could help to assess these policies as a mediating factor for the minority stress experience among sexual minority youth.

While previous studies have demonstrated that sexual minority youth are at risk for suicidality, the risk is not uniform across sexual minority groups and racial/ethnic groups. Taking the findings of this study into consideration, an intersectional perspective (Hill-Collins & Bilge, 2016) assisted this study in identifying Black non-Hispanic Questioning youth as at particularly high risk. Spaces must be created for Questioning youth, who may not have the established sense of community among other sexual minorities. Bisexual youth are also at particularly high risk of suicide, and their increased odds of suicidal behavior was explained in part by both peer aggression and emotional distress. Given the results of this study, Bisexual youth in particular could benefit from safe spaces and protective legislation, to improve the climate of peer aggression. Until sexual minority youth are no longer at significantly higher risk of suicidality than their heterosexual peers, there is much work to be done.

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APPENDIXES

APPENDIX A

Table A.1. Sample Characteristics

Sample Characteristics	
Identity Characteristics	%
Sexual Identity	
Heterosexual	85.80
Gay or Lesbian	2.20
Bisexual	8.20
Questioning	3.80
Racial Identity	
White Non-Hispanic	55.30
Black Non-Hispanic	11.00
Hispanic/Latinx	22.90
Other Non-Hispanic	10.80
Peer Aggression	
Has safety concerns at school	6.10
Bullied at school	19.70
Electronically bullied	15.40
Been in a fight	22.80
Has been threatened at school	5.40
Emotional Distress	
Felt sad or hopeless	32.30
Suicidality	
Suicidal ideation	17.70
Suicide plan	13.80
Suicide attempt	7.10
Sex	
Male	
Female	
Age	
12-14 years old	11.70
15-16 years old	50.30
17 years old +	38.00
N	9705

APPENDIX B

Table B.1. Bivariate by Sexual Identity

	Sexual Identity by Study Variables				Total	χ^2 Sig.
	Heterosexual	Lesbian/Gay	Bisexual	Questioning		
Peer Aggression						
Has safety concerns at school	5.60%	9.20%	9.10%	7.40%	6.10%	***
Bullied at school	17.60%	31.30%	36.30%	24.00%	19.70%	***
Electronically bullied	13.60%	18.40%	30.70%	22.60%	15.40%	***
Been in a fight	22.50%	19.90%	28.20%	19.30%	22.80%	**
Been threatened at school	5%	6%	8.40%	6.80%	5.40%	**
Emotional Distress						
Felt sad or hopeless	27.60%	56.50%	66.40%	49.60%	47.70%	***
Suicidality						
Suicidal ideation	13.10%	42.90%	50.90%	35.40%	17.70%	***
Suicide plan	10.10%	34.30%	40.90%	28.10%	13.80%	***
Suicide attempt	5.10%	15.20%	23.40%	12.00%	7.10%	***

p<.05*, *p*<.01**, *p*<.001*

Table B.2 Sexual Identity by Other Student Characteristics

Sample Characteristics	Sexual Identity				χ^2	Sig.
	Heterosexual	Gay or Lesbian	Bisexual	Questioning		
Race/Ethnic Identity						
White non-Hispanic	85.90%	2.10%	8.00%	4.00%		
Black non-Hispanic	82.30%	3.00%	10.70%	4.00%		
Hispanic/Latinx	86.80%	2.30%	7.30%	3.60%		
Other non-Hispanic	86.20%	2.10%	8.70%	3.00%	18.03	*
<hr/>						
Age						
12 to 14 years	83.30%	2.10%	8.60%	6.00%		
15-16 years	85.30%	2.20%	8.60%	3.80%		
17years +	87.00%	2.20%	7.60%	3.10%		
					23.34	***
<hr/>						
Sex						
Male	92.10%	2.20%	2.90%	2.80%		
Female	79.70%	2.30%	13.30%	4.70%		
					382.76	***
<hr/>						
<i>p<.05*</i> , <i>p<.01**</i> , <i>p<.001***</i>						

Table B.3 Suicidality by Sexual Identity and Race/Ethnicity

Sexual Identity	Race/Ethnicity			
	White NH	Black NH	Hispanic/Latinx	Other NH
Suicidal Ideation				
Heterosexual	13.10%	11.00%	12.70%	15.70%
Gay or Lesbian	45.50%	29.00%	39.20%	54.50%
Bisexual	56.60%	27.80%	48.50%	56.70%
Questioning	31.10%	43.20%	38.80%	43.80%
χ^2	593.12***	55.81***	185.11***	109.57***
Suicide Plan				
Heterosexual	9.20%	9.10%	10.60%	14.50%
Gay or Lesbian	39.30%	18.80%	29.40%	45.50%
Bisexual	43.60%	27.00%	38.90%	48.40%
Questioning	23.60%	40.90%	32.50%	31.30%
χ^2	499.18***	64.46***	134.81***	77.32***
Suicide Attempt				
Heterosexual	4.30%	5.90%	5.70%	6.70%
Gay or Lesbian	11.60%	18.80%	23.50%	9.50%
Bisexual	23.40%	14.90%	25.90%	29.70%
Questioning	8.50%	30.20%	11.30%	9.40%
χ^2	593.12***	58.81***	185.11***	109.57***

p<.05*, *p*<.01**, *p*<.001***

Table B.4 Peer Aggression and Emotional Distress by Sexual Identity and Race/Ethnicity

Sexual Identity	Race/Ethnicity			
	White NH	Black NH	Hispanic/Latinx	Other NH
Has safety concerns at school				
Heterosexual	4.40%	7.30%	7.70%	5.80%
Gay or Lesbian	6.30%	12.90%	11.80%	9.10%
Bisexual	9.30%	7.00%	12.30%	5.50%
Questioning	4.70%	11.60%	13.80%	6.30%
χ²	20.57***	2.42	8.33*	0.47
Been bullied				
Heterosexual	19.60%	12.20%	14.90%	18.20%
Gay or Lesbian	39.30%	9.70%	21.60%	45.50%
Bisexual	42.70%	19.10%	31.50%	36.30%
Questioning	22.70%	23.30%	31.30%	15.60%
χ²	142.98***	8.44*	42.31***	25.78***
Been e-bullied				
Heterosexual	15.50%	10.00%	11.10%	12.40%
Gay or Lesbian	25.90%	12.50%	5.90%	14.30%
Bisexual	39.70%	14.00%	23.30%	23.10%
Questioning	19.80%	22.70%	30.00%	25.00%
χ²	162.43***	8.18*	45.1***	11.56**
Been in a fight				
Heterosexual	20.00%	31.70%	25.00%	21.00%
Gay or Lesbian	17.00%	35.50%	21.60%	9.10%
Bisexual	24.10%	37.70%	35.20%	23.30%
Questioning	15.60%	30.20%	26.30%	12.50%
χ²	7.78	1.87	8.66*	3.55
Been threatened at school				
Heterosexual	4.20%	6.50%	5.60%	6.70%
Gay or Lesbian	3.60%	6.50%	11.80%	4.50%
Bisexual	8.40%	9.60%	8.00%	7.70%
Questioning	8.50%	2.30%	6.30%	3.10%
χ²	22.17***	2.99	4.91	0.97
Felt sad or hopeless				
Heterosexual	26.40%	24.90%	30.40%	30.40%
Gay or Lesbian	57.10%	40.60%	56.90%	72.70%
Bisexual	68.40%	59.60%	63.60%	70.30%
Questioning	45.80%	52.30%	60.00%	46.90%
χ²	383.38***	70.53***	108.90***	73.89***

p < .05*, *p* < .01**, *p* < .001***

APPENDIX C

Table C.1. Multivariate Models Predicting Suicidal Ideation

	Model 1				Model 2				Model 3				Model 4			
	Coeff	S.E.	Odds Ratio	Sig.	Coeff	S.E.	Odds Ratio	Sig.	Coeff	S.E.	Odds Ratio	Sig.	Coeff	S.E.	Odds Ratio	Sig.
Sexual Identity																
Gay or Lesbian	1.63	0.14	5.08	***	1.62	0.15	5.04	***	1.27	0.17	3.56	***	1.31	0.24	3.71	***
Bisexual	1.77	0.08	5.86	***	1.62	0.09	5.05	***	1.29	0.09	3.63	***	1.46	0.13	4.30	***
Questioning	1.23	0.12	3.43	***	1.25	0.12	3.48	***	1.02	0.14	2.79	***	0.87	0.18	2.38	***
Racial/Ethnic Identity																
Black non-Hispanic	-0.38	0.10	0.68	***	-0.35	0.10	0.71	**	-0.35	0.11	0.71	**	-0.18	0.13	0.83	-
Hispanic/Latinx	-0.06	0.07	0.94	-	-0.05	0.07	0.96	-	-0.16	0.08	0.86	*	-0.15	0.09	0.87	-
Other non-Hispanic	0.19	0.09	1.21	*	0.25	0.09	1.28	**	0.15	0.10	1.17	-	0.13	0.12	1.14	-
Peer Aggression																
Has safety concerns at school	-	-	-	-	0.56	0.11	1.75	***	0.34	0.11	1.40	**	0.33	0.12	1.39	**
Been bullied at school	-	-	-	-	0.76	0.08	2.14	***	0.47	0.08	1.59	***	0.46	0.08	1.59	***
Electronically bullied	-	-	-	-	0.59	0.08	1.81	***	0.35	0.09	1.42	***	0.34	0.09	1.40	***
Been in physical fight	-	-	-	-	0.56	0.07	1.75	***	0.35	0.08	1.42	***	0.35	0.08	1.42	***
Threatened at school	-	-	-	-	0.51	0.11	1.67	***	0.36	0.12	1.43	**	0.37	0.12	1.45	**
Emotional Distress																
Felt sad or hopeless	-	-	-	-	-	-	-	-	2.33	0.07	10.26	***	2.34	0.07	10.33	***
Race Interactions																
Black non-Hispanic*Gay or Lesbian	-	-	-	-	-	-	-	-	-	-	-	-	-0.27	0.52	0.76	-
Black non-Hispanic*Bisexual	-	-	-	-	-	-	-	-	-	-	-	-	-1.05	0.29	0.35	***
Black non-Hispanic*Questioning	-	-	-	-	-	-	-	-	-	-	-	-	0.66	0.44	1.94	-
Hispanic/Latinx*Gay or Lesbian	-	-	-	-	-	-	-	-	-	-	-	-	-0.03	0.42	0.97	-
Hispanic/Latinx*Bisexual	-	-	-	-	-	-	-	-	-	-	-	-	-0.10	0.24	0.90	-
Hispanic/Latinx*Questioning	-	-	-	-	-	-	-	-	-	-	-	-	0.02	0.34	1.03	-
Other non-Hispanic*Gay or Lesbian	-	-	-	-	-	-	-	-	-	-	-	-	-0.05	0.55	0.95	-
Other non-Hispanic*Bisexual	-	-	-	-	-	-	-	-	-	-	-	-	-0.09	0.30	0.91	-
Other non-Hispanic*Questioning	-	-	-	-	-	-	-	-	-	-	-	-	0.71	0.48	2.02	-
Age																
12 to 14	-0.04	0.09	0.96	-	-0.15	0.10	0.86	-	-0.15	0.11	0.86	-	-0.14	0.11	0.87	-
17+	0.06	0.06	1.06	-	0.19	0.06	1.21	*	0.17	0.07	1.18	*	0.16	0.07	1.17	*
Sex																
Female	0.61	0.06	1.83	***	0.63	0.06	1.87	***	0.21	0.07	1.23	**	0.22	0.07	1.24	*
Constant																
	-2.30	0.11	0.10	***	-3.15	0.13	0.04	***	-3.78	0.14	0.02	***	-3.48	0.09	0.03	*
Nagelkerke r-square		0.14				0.23				0.40				0.40		
N		9705				9705				9705				9705		

p<.05*, *p*<.01**, *p*<.001***

White, heterosexual, male, 15-16 held as reference group

Table C.2. Multivariate Predicting Suicide Plan

	Model 1				Model 2				Model 3				Model 4			
	Coeff	S.E.	Odds Ratio	Sig.	Coeff	S.E.	Odds Ratio	Sig.	Coeff	S.E.	Odds Ratio	Sig.	Coeff	S.E.	Odds Ratio	Sig.
Sexual Identity																
Gay or Lesbian	1.55	0.15	4.71	***	1.52	0.16	4.55	***	1.15	0.17	3.15	***	1.42	0.23	4.12	***
Bisexual	1.68	0.08	5.35	***	1.51	0.09	4.50	***	1.16	0.09	3.20	***	1.30	0.12	3.66	***
Questioning	1.20	0.12	3.31	***	1.19	0.13	3.29	***	0.95	0.14	2.57	***	0.85	0.19	2.35	***
Racial Identity																
Black non-Hispanic	-0.17	0.11	0.84	-	-0.13	0.11	0.88	-	-0.09	0.12	0.92	-	0.01	0.14	1.01	-
Hispanic/Latinx	0.09	0.08	1.10	-	0.11	0.08	1.12	-	0.05	0.09	1.05	-	0.10	0.10	1.10	-
Other non-Hispanic	0.43	0.09	1.53	***	0.50	0.10	1.65	***	0.45	0.10	1.56	***	0.49	0.12	1.63	***
Peer Aggression																
Has safety concerns at school	-	-	-	-	0.62	0.11	1.87	***	0.43	0.11	1.54	***	0.43	0.12	1.53	***
Been bullied at school	-	-	-	-	0.73	0.08	2.07	***	0.45	0.09	1.56	***	0.44	0.09	1.56	***
Electronically bullied	-	-	-	-	0.52	0.09	1.67	***	0.29	0.09	1.34	**	0.28	0.09	1.32	***
Been in physical fight	-	-	-	-	0.58	0.07	1.79	***	0.39	0.08	1.48	***	0.40	0.08	1.49	***
Threatened at school	-	-	-	-	0.40	0.12	1.49	**	0.25	0.12	1.28	*	0.26	0.12	1.30	-
Emotional Distress																
Felt sad or hopeless	-	-	-	-	-	-	-	-	2.08	0.08	7.98	***	2.08	0.08	7.99	***
Race Interactions																
Black non-Hispanic*Gay or Lesbian	-	-	-	-	-	-	-	-	-	-	-	-	-0.81	0.56	0.45	-
Black non-Hispanic*Bisexual	-	-	-	-	-	-	-	-	-	-	-	-	-0.60	0.29	0.55	*
Black non-Hispanic*Questioning	-	-	-	-	-	-	-	-	-	-	-	-	0.77	0.43	2.15	-
Hispanic/Latinx*Gay or Lesbian	-	-	-	-	-	-	-	-	-	-	-	-	-0.48	0.42	0.62	-
Hispanic/Latinx*Bisexual	-	-	-	-	-	-	-	-	-	-	-	-	-0.17	0.23	0.85	-
Hispanic/Latinx*Questioning	-	-	-	-	-	-	-	-	-	-	-	-	-0.05	0.34	0.95	-
Other non-Hispanic*Gay or Lesbian	-	-	-	-	-	-	-	-	-	-	-	-	-0.47	0.53	0.63	-
Other non-Hispanic*Bisexual	-	-	-	-	-	-	-	-	-	-	-	-	-0.19	0.29	0.83	-
Other non-Hispanic*Questioning	-	-	-	-	-	-	-	-	-	-	-	-	0.07	0.49	1.07	-
Age																
12 to 14	-0.02	0.10	0.98	-	-0.13	0.10	0.88	-	-0.13	0.11	0.88	-	-0.12	0.11	0.89	-
17+	0.07	0.07	1.08	-	0.21	0.07	1.24	*	0.19	0.07	1.21	*	0.19	0.07	1.21	**
Sex																
Female	0.51	0.07	1.66	***	0.52	0.07	1.69	***	0.13	0.08	1.14	-	0.14	0.08	1.15	-
Constant	-2.64	0.13	0.07	***	-3.49	0.14	0.03	***	-4.04	0.15	0.02	***	-3.74	0.10	0.02	***
Nagelkerke r-square		0.12				0.20				0.33				0.33		
N		9705				9705				9705				9705		

p<.05*, *p*<.01**, *p*<.001

White, male, heterosexual, age 15-16 held as reference group

Table C.3. Predicting Suicide Attempt

	Model 1				Model 2				Model 3				Model 4			
	Coeff	S.E.	Odds Ratio	Sig.	Coeff	S.E.	Odds Ratio	Sig.	Coeff	S.E.	Odds Ratio	Sig.	Coeff	S.E.	Odds Ratio	Sig.
Sexual Identity																
Gay or Lesbian	1.19	0.20	3.28	***	1.11	0.21	3.03	***	0.74	0.22	2.09	**	0.41	0.33	1.51	-
Bisexual	1.56	0.10	4.78	***	1.33	0.11	3.77	***	0.98	0.11	2.66	***	1.03	0.15	2.81	***
Questioning	0.83	0.17	2.29	***	0.75	0.18	2.11	***	0.44	0.19	1.56	*	0.26	0.28	1.30	-
Racial Identity																
Black non-Hispanic	0.20	0.13	1.22	-	0.24	0.14	1.27	-	0.30	0.14	1.35	*	0.30	0.18	1.35	-
Hispanic/Latinx	0.26	0.10	1.30	**	0.27	0.11	1.31	*	0.22	0.11	1.25	*	0.18	0.13	1.20	-
Other non-Hispanic	0.40	0.13	1.49	**	0.50	0.13	1.65	***	0.41	0.14	1.51	*	0.38	0.17	1.46	*
Peer Aggression																
Has safety concerns at school					0.85	0.12	2.34	***	0.68	0.13	1.97	***	0.66	0.13	1.94	***
Been bullied at school	-	-	-	-	0.78	0.10	2.19	***	0.51	0.11	1.66	***	0.52	0.11	1.67	***
Electronically bullied	-	-	-	-	0.63	0.11	1.87	***	0.44	0.11	1.55	***	0.43	0.11	1.54	***
Been in physical fight	-	-	-	-	0.89	0.09	2.43	***	0.72	0.10	2.06	***	0.73	0.10	2.08	***
Threatened at school	-	-	-	-	0.63	0.13	1.88	***	0.51	0.14	1.66	***	0.52	0.14	1.68	***
Emotional Distress																
Felt sad or hopeless	-	-	-	-					2.04	0.12	7.72	***	2.05	0.12	7.80	***
Race Interactions																
Black non-Hispanic*Gay or Lesbian	-	-	-	-	-	-	-	-	-	-	-	-	0.79	0.63	2.21	-
Black non-Hispanic*Bisexual	-	-	-	-	-	-	-	-	-	-	-	-	-0.72	0.36	0.49	*
Black non-Hispanic*Questioning	-	-	-	-	-	-	-	-	-	-	-	-	1.45	0.52	4.26	**
Hispanic/Latinx*Gay or Lesbian	-	-	-	-	-	-	-	-	-	-	-	-	0.93	0.51	2.55	-
Hispanic/Latinx*Bisexual	-	-	-	-	-	-	-	-	-	-	-	-	0.07	0.27	1.08	-
Hispanic/Latinx*Questioning	-	-	-	-	-	-	-	-	-	-	-	-	-0.32	0.48	0.73	*
Other non-Hispanic*Gay or Lesbian	-	-	-	-	-	-	-	-	-	-	-	-	-0.40	0.81	0.67	-
Other non-Hispanic*Bisexual	-	-	-	-	-	-	-	-	-	-	-	-	0.15	0.33	1.16	-
Other non-Hispanic*Questioning	-	-	-	-	-	-	-	-	-	-	-	-	0.16	0.70	1.17	-
Age																
12 to 14	0.39	0.12	1.47	***	0.27	0.12	1.31	*	0.28	0.13	1.33	*	0.30	0.13	1.34	*
17+	-0.19	0.09	0.83	*	-0.01	0.10	0.99	-	-0.03	0.10	0.97	-	-0.06	0.10	0.94	-
Sex																
Female	0.58	0.09	1.78	***	0.65	0.10	1.91	***	0.27	0.10	1.31	**	0.28	0.10	1.32	**
Constant	-2.78	0.16	0.06	***	-3.99	0.18	0.02	***	-4.62	0.20	0.01	***	-4.94	0.14	0.01	***
Nagelkerke r-square		0.09				0.22				0.31				0.31		
N		9705				9705				9705				9705		

$p < .05^*$, $p < .01^{**}$, $p < .001^{***}$

White, male, heterosexual, age 15-16 held as reference group