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SCHOOL SUPPORTS FOR LGBTQ STUDENTS:

COUNTERACTING THE DANGERS OF THE CLOSET

By

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Dissertation

presented in partial fulfillment of the requirements for the degree of

Doctor of Philosophy in School Psychology

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Lindquist, Lauri M., Ph.D. May 2016

School Psychology

School Supports for LGBTQ Students: Counteracting the Dangers of the Closet

Chairperson: Dr. Greg R. Machek

Researchers have reported that being proud and open about one's sexual and/or gender identity is related to fewer negative psychological outcomes. However, this process of identity development is often impeded by environmental factors, such as minority stress. Through his minority stress hypothesis, Meyer (2003) suggests that suggests that living in a society that is intolerant of central features of the self (e.g., sexual orientation and gender identity) increases the level of stress in individuals with minority statuses. These environmental stressors are consistently shown by research to account for the disproportionate amount of negative psychological and academic outcomes experienced by sexual and gender minority individuals. In the current study, I examined whether various school supports (gay-straight student alliances, inclusive curricula, antidiscrimination policies, supportive school personnel, accepting peers, and safe zones) are associated with higher levels of identity integration, and less depression and anxiety. It also examines whether this protection includes academic outcomes as well, such as GPA, school belonging, and absenteeism. Participants were recruited online from across the United States from gay-straight student alliances at colleges and universities, and from community centers for sexual and gender minority individuals. Measures assessed high school experiences and current psychological functioning. Results indicated that identity integration is significantly correlated with depression and school belonging. They also showed that school supports significantly moderate the relationships between identity integration and absenteeism, and between identity integration and school belonging in female-identified students. Implications and future directions are discussed.

Dedication

I would like to dedicate this dissertation to my dad, the original Dr. Lindquist, who instilled in me the importance of a safe and accessible education for all;

to my mom, who showed me by example that you're never too old to go back to school;

and to my brother Mike. I miss you every day.

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Graduate school wouldn't be tolerable without the relationships you create along the way. I have made more than my share, but there are a few that stick out, and that will last a lifetime. Katie Oost and Ciara Hansen have given more than wine, laughs, and support. They have helped me to understand more thoroughly my privilege, and have kept me grounded to the kind of work I want to be a part of. They have helped me to view my research more critically, and look at the literature base with nuance and purpose. Laura Ambrose is my warm comfort, who never fails to say exactly the right thing in good and bad times. Laura can always be counted on to share nachos and beer at The Old Post. Renee Madathil, the Peppa to my Salt, is my go-to shoulder when school (or life) gets overwhelming. Renee has become a part of my family. She was with my family when we found out my brother was dying, she was with me when I got my own diagnosis, and she was with me when we decided to spend the entire day eating appetizers and watching a biopic of Justin Bieber and the Real Housewives of Atlanta. What more could a friend offer?

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School Supports for LGBTQ Students: Counteracting the Dangers of the Closet

Chapter I

Adolescence is a time of great change and discovery. For sexual and gender minority (SGM) adolescents, there is an additional developmental layer that complicates this period of sexual and gender identity self-discovery. The process of identity development can be lengthy and difficult. Minority stress can impede developmental progress, often resulting in negative psychological outcomes. Being one of the most prominent environments in which adolescents exist, schools are uniquely positioned to reduce SGM students' minority stress by increasing positive school climate.

Population Definitions

Adolescence

At its broadest level, any study examining high school students examines adolescence. Popular and scientific notions of adolescence can be traced back to psychological theories developed in Western Europe and the United States during the late 19th century. In particular, G. Stanley Hall greatly influenced the field, as he was the first psychologist to advance a "psychology of adolescence" (Lennie & Hanley, 2013). Hall's 1904 volumes about adolescence, *Psychology and Its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion, and Education*, offered a depiction of adolescence as a transitional stage of the soul that lasted from age 12 or 13 to between 22 and 25 years of age. Hall famously described this stage of life as a period of "Sturm und Drang," or "storm and stress," a term borrowed from an 18th century German literary movement characterized by idealism, commitment to a goal, revolution against the old, expression of feeling, passion, and suffering. In addition to being a period of storm and

stress, Hall characterized adolescence as a time of increased autonomy, peer-relatedness, intergenerational conflict, and social psychological anxieties (Lennie & Hanley, 2013).

In his psychosocial model, Erikson posited that establishment of a coherent sense of self is the major task of adolescence. He suggested that this process requires piecing together disparate facets of one's self-image and what one values. Indeed, a host of empirical evidence suggests that self-understanding becomes more nuanced and complex during adolescence (Bronk, 2011). For example, adolescents' self-descriptors transition from static ("I am popular") to situational, and adolescents come to understand that they display different characteristics in different situations. It is also thought that self-understanding develops as adolescents are increasingly aware of who they wish to become (Choudhury, Blakemore, & Charman, 2006), and how they fit into society, exacerbated by the increasing importance adolescents place on peer relationships and opinions (Montemayor, 1982).

Sexual orientation and gender identity

Sexual orientation is a multi-dimensional construct that includes components of behavior, attraction, and identity (Diamond, 2003; Savin-Williams, 2006). Consequently, it can be complicated to define and measure. Common identity labels within sexual orientation are: gay/lesbian (same-sex attraction); bisexual (attraction to two genders); pansexual (attraction to all genders); queer (a term with sociopolitical underpinnings, generally assumed to mean 'not heterosexual or cisgender'); questioning (curious, but not ready to identify); asexual (no sexual attraction); and heterosexual (opposite-sex attraction). Although it is a separate construct, gender identity is often conflated with sexual orientation, and complicates attraction. For example, bisexuality is traditionally assumed to be attraction to "both" sexes. When conceptualizing gender beyond the traditional binary, this definition becomes less relevant. Common labels

within gender identity are: transgender, transsexual, genderqueer, gender fluid, and cisgender (someone for whom the gender assigned at birth matches their gender identity). The construct of gender orientation is also multidimensional and includes expression and identity (Fausto-Sterling, 2000). Although the term 'transgender' connotes a transition (either through medical intervention, social expression, or both) from one gender to the other, it also has been used more broadly (e.g., for those who perform their gender differently depending on the context; Lev, 2004).

For the purposes of this project, the same minority stress processes are common to all individuals who are not exclusively heterosexual and/or cisgender. Therefore, the term "sexual and gender minorities" will be used to describe anyone who does not exclusively identify as heterosexual or is questioning how to identify. Additionally, it will be used to describe those who are not exclusively cisgender, and/or those who do not ascribe to the gender binary. Alternately, to describe studies that used only part of this population (e.g., LGB or homosexuality), the language used will mirror the language of the study.

Theories of Sexual and Gender Identity Development

Theories of sexual and gender identity development are complicated by competing paradigms: essentialism versus social constructionism (Eliason & Shope, 2007). The essentialist paradigm, present in the stage theories of identity development, assumes that sexual and gender identities are a biological reality, an essential piece of each individual. Essentialists believe that sexual and gender identities develop through a process of stages or milestones. Some essentialists presume this process to be linear, while others allow for more variability in the development process (known colloquially as "coming out"). By contrast, social constructionists believe that sexual and gender orientations are contextually-based, and performed differently in

various environments of time and place. Many social constructionists believe that the very concepts of sexual and gender identities are strictly a product of a repressive, heteronormative environment that pathologizes anything that does not follow the hegemonic culture of heterosexuality and cisgenderism (Eliason & Shope, 2007). Most modern theories of identity development are substantively essentialist, but recognize that development is often greatly influenced by the social and cultural environment in which an individual exists (Eliason & Shope, 2007).

Sexual Identity Development

Many researchers (e.g., Cass, 1979; Colemen, 1982; Sophie, 1986; Troiden, 1989) have studied identity development for sexual minority individuals, theorizing about the sequence and pattern of stages in which individuals develop. Researchers widely recognize that this development is qualitatively different from the sexual development of heterosexual youth, due to their placement within a heteronormative society (Rivers, 1997). As such, sexual minority individuals progress through a process of self-discovery and reconciliation between their selfconcepts, the value judgments they place on their behaviors, and the value judgments they perceive others to place on their identities and behaviors. Within each stage theory, development is described from the point of first questioning one's sexual identity, to arriving at a selfactualization of sexual identity, in which one's sexual identity is viewed in a positive light.

Homosexual Identity Formation.

One of the earlier and more influential of these studies was done by Vivienne Cass in 1979. Studying the sexual identity development of gay men and lesbians, Cass articulated six stages: Identity Confusion, Identity Comparison, Identity Tolerance, Identity Acceptance, Identity Synthesis, and Identity Pride. Identity Confusion is characterized by questioning one's

own sexual orientation, yet keeping it hidden from others. Oftentimes, this incongruence results in disturbances of affect (Cass, 1979). The second stage, Identity Comparison, involves the isolation that is the result of becoming more aware that one is gay, yet is perceived by others to be heterosexual. In the third stage, Identity Tolerance, individuals begin to seek out gay culture intermittently, and become less ambivalent about their sexual minority identities. In this stage, feelings of isolation may become more pronounced. Identity Acceptance, the fourth stage, entails increasing involvement with the gay community, a more positive attitude toward homosexuality, but continued discrepancy between the sexual orientations that individuals express to the public and keep to themselves. Positive attitudes towards homosexuality increase during the fifth stage, Identity Pride. During this stage, individuals develop feelings of pride toward their community and their sexual minority status. As this intensifies and individuals reflect on the homophobia they have experienced, they tend to dichotomize sexual identities as "good" or "bad," viewing homosexuality in a positive light, and heterosexuality more negatively. When individuals recognize the positive heterosexual individuals in their lives, they tend to move from this dichotomous thinking. This sixth and final stage, Identity Synthesis occurs when individuals view their sexual orientation as one of many facets of themselves.

Whereas Homosexuality Identity Formation is described here as a linear process, Cass (1979) allowed for dynamic interaction between person, environment, and perceptions of the environment (Cass, 1979). In fact, Cass rested this theory within the interpersonal congruency theory framework, positing that "...stability and change in human behavior are dependent on the congruency or incongruency that exists within an individual's interpersonal environment." (Cass, 1979, pp. 220). In other words, according to the Homosexual Identity Formation theory, movement from one stage toward the next occurs as an attempt to resolve incongruence between

an internal reality (e.g., "I think I might be gay."), behaviors that stem from that internal reality (e.g., "I have sexual fantasies about members of my own sex."), and perceptions of how others view that behavior (e.g., "Everyone thinks being gay is sinful."). Alternately, at any time during this process, an individual can stop progressing through the stages in an attempt to regain congruence, thereby entering into what Cass (1979) called Identity Foreclosure. For example, during Identity Confusion, an individual could attempt to resolve incongruence by redefining same-sex sexual fantasies as a normative heterosexual experience, thus avoiding the need to question the meaning of the fantasies as potentially gay.

By surveying gay and lesbian-identified adults about their process of identity formation, Troiden (1989) built upon Cass's theory, making a few alterations. Creating a four-stage theory, Troiden theorized that identity formation occurs as a function of resolving the discrepancies between self-concept and self-identity. His first proposed stage, Identity Sensitization, occurs before homosexuality feels self-relevant. Rather, the individual experiences marginalization in more generalized ways. For example, an established lesbian might look back upon her childhood and remark she never went through the "boy crazy" phase that her peers experienced. Personalization of this difference begins at stage two, Identity Confusion. Similar to Cass's stage by the same name, Identity Confusion involves a state of questioning privately whether or not one could be gay. By changing the perspective of difference from one of behavior (e.g., "I don't have crushes on boys.") to a characteristic (e.g., "I might be gay."), the feeling of isolation becomes more salient. This isolation, of course, is influenced by the individual's perceptions of the social stigma surrounding homosexuality; the more social stigma that exists in their community regarding issues of homosexuality, the more isolated they are likely to feel (Troiden, 1989). In stage three, Identity Assumption, sexual minority individuals start to disclose their

sexual minority status to themselves and other individuals. Additionally, they begin to become involved in sexual minority-related activities and groups, and engage in same-sex sexual behaviors. Although disclosure begins in this stage, one hallmark of Identity Assumption is that individuals *tolerate* their sexual minority statuses rather than *accepting* them. The individual may not believe it will be an enduring trait, and likely presents as heterosexual in some contexts. Full immersion into a sexual minority identity occurs in the fourth stage, Identity Commitment. This stage occurs when presenting as gay is both more attractive and less costly than presenting as straight (Troiden, 1989). For example, if an individual fell in love with a member of the same sex, s/he might decide that the risk of losing that relationship by keeping it hidden is more costly than managing the stigma associated with presenting as gay in all contexts.

Halpin and Allen (2004) reviewed Cass's Homosexual Identity Formation stage model (1979), investigating relationships between the various stages and measures of psychosocial adjustment, such as happiness, life satisfaction, self-esteem, and loneliness. Sampling 425 gay men between the ages of 12 and 64 (M = 29.2), the researchers found a U-shaped relationship between stages of identity development and psychosocial adjustment. That is, participants reported relatively high levels of psychosocial adjustment at the beginning and ending stages of identity development, whereas the middle stages were associated with the lowest levels of psychosocial adjustment. It should be noted that the middle stages (Identity Tolerance and Identity Acceptance) are characterized by disclosure to others, and little consistent involvement with the gay community. Therefore, during these stages individuals have the greatest risk of experiencing isolation.

The ecological theory of gay male identity.

Finding stage theories of sexual identity development for gay men to be too restrictive and linear, and process theories to be too undefined, Alderson (2003) developed the ecological theory of gay male identity. In this theory, Alderson conceptualized the coming out process to generally occur in three broad stages: Before Coming out, During Coming Out, and After Coming Out. The ratio of catalysts (i.e, things that encourage development) to hindrances (i.e., things that make development more difficult) affects each stage. Alderson conceptualizes the progression of each stage of the process to be a function of resolving one's cognitive dissonance, created by incongruencies in behavior, cognition, and affect. Furthermore, the process is individualized by the unique contributions of the self, the environment, and the interaction between the two. Therefore, Alderson concluded that no two paths to a fully integrated sexual identity are the same.

Inclusive Model of Sexual Identity Formation.

"Disclosure is so profoundly influenced by contextual oppression that to use it as an index of identity development directly forces the victim to take responsibility for his or her own victimization" (Fassinger & Miller, 1996, p. 56)

Asserting that traditional models of sexual identity development inappropriately combine individual development processes with group membership processes, McCarn and Fassinger (1996) developed a new model. The researchers postulated that individuals progress through two separate but related sequences of identity development: individual and group membership identity. For example, a woman could become fully integrated in her identity as a lesbian, but for personal (e.g., cultural, safety) reasons choose to stay closeted in some or all situations. These two reciprocal branches allow for differences in culture and level of environmental heterosexism

by maintaining that whereas one branch affects the other, progression in one is not dependent on the other.

Both branches in McCarn and Fassinger's (1996) model of sexual identity development are preceded by a phase of non-awareness. Within each branch, the same phases are contained, represented below in Table 1 (modified from Fassinger and Miller, 1996).

	Individual Sexual Identity	Group Membership Identity
	Recognition of personal	Recognition of sexual
Awareness	difference from the majority	orientations other than
		heterosexuality
	Evaluation of same-sex sexual	Evaluation of how one might
Exploration	attractions, either to a certain	see oneself fitting into the gay
	individual, or to individuals in	community, both in terms of
	general of the same sex	attitudes and membership
	Development and dedication	Development and dedication
	to increased self-awareness	to group membership within
	and sexual choices (e.g.,	the gay community, as well as
Deepening/Commitment	consideration of a longer term	recognition of the potential
	relationship with a same-sex	consequences of doing so,
	partner, as opposed to a fling).	possibly including anger at
		heterosexuals
	Dedication to an internal	Dedication to group
Internalization/Synthesis	concept of the self as a sexual	membership within the gay
	minority	community with the ability to

	enjoy heterosexual friends as
	well

Similarly, Floyd and Stein (2002) describe milestones, rather than stages. Although the milestones are similar to stages in other theories (e.g., self-awareness, sexual experiences, involvement in LGBT-related activities, disclosure to others), there is no assumption of a particular order in which they should occur. For some, sexual experience may occur long before disclosure or even self-awareness. For others, sexual experience may not be a necessary component prior to disclosure. Still others may never involve themselves in LGBT-related activities, due to personal preference or contextual factors such as rural living. Floyd and Stein also delineate two dimensions of development: outward acts, such as disclosure, and inward processes, such as self-awareness.

The majority of the research regarding sexual identity development centers on gay men, with little or no consideration of the differences in experience of lesbians and bisexual women in regards to sexual identity development. In fact, Rivers (1997) posits that even in theories that explicitly include bisexuals, the presumptions made within the theories implicitly exclude them. For example, in D'Augelli's (1994) model, sexual identity development is described in the context of developmental plasticity. However, the very direction of the plasticity is only defined as moving away from heterosexual relationships, and toward homosexual relationships, thereby leaving out those bisexuals who move in the opposite direction.

Rosario, Schrimshaw, and Hunter (2008) reviewed the literature on identity development. Less concerned about the division between essentialism and social constructionism, they sought to find the commonalities between theories. They posited that all theories contain two common

processes: identity formation and identity integration. Identity formation includes more tentative processes, such as questioning, self-disclosure, and sexual experiences. Identity integration is associated with processes of acceptance and synthesis, such as openly identifying as a sexual minority, experiencing positive feelings about one's sexual minority status, and involvement in the SGM community.

In an attempt to break free of the quasi-essentialist theoretical roots of identity development and outness and explain the variability in the LGB experience, Mohr and Fassinger (2003) used factor analysis to examine the constructs of identity development. Similar to Rosario, Schrimshaw, and Hunter (2008), they found the relevant latent variables to be negative identity (comprised of homonegativity, need for acceptance, and difficult process), and public outness (i.e., being "out" to heterosexual friends, work peers, work friends, and supervisors).

Gender Identity Development

Devor (2002) proposed one of the few theories to examine gender identity development. Based on Cass's (1979) model, Devor primarily studied female-to-male (FTM) transgender individuals. In the theory, Devor describes gender identity development through 14 stages, and includes some stages that are described as "delay stages." Although Devor describes gender identity development, he also describes two processes that he postulates to be common to all identity formation: witnessing and mirroring. Witnessing refers to the desire innate to all people to be known by others by one's own authentic self. Mirroring occurs when one sees oneself through the perspective of another who belongs to the same identity group. Devor proposed that all identity formation hinges on witnessing and mirroring (Eliason & Shope, 2007).

States of Emergence.

Lev (2004) proposed the most widely used theory of gender identity development, States of Emergence. This six-stage process is similar to the stage theories of sexual identity development, in that it starts with awareness and ends with integration. Many of the stages in between (seeking information/reaching out, disclosure to significant others, and exploration: identity and self-labeling) are analogous to stages in sexual identity development theories, as well, and in fact potentially translate quite easily. As a matter of necessity, the fifth stage (exploration: transition issues/possible body modification) is the only stage that is completely unique to transgender individuals. In this stage, individuals explore their options regarding presentation. This might include taking hormones, surgery, clothing, or expression. Individuals make decisions for each of the dilemmas considered, and advocate for whatever measures need to be taken (e.g., finding a surgeon and negotiating with insurance companies). Like the stage theories of sexual identity development, moving onto the next stage requires completion of a therapeutic task.

As asserted by Rosario, Schrimshaw, and Hunter (2008), common processes in all theories of identity development are identity formation and identity integration. Whether those stages are necessary because of a biological urge, because of social construction, or a combination of the two is ultimately irrelevant for the current project. The heteronormative values of the dominant culture in Western society are such that individuals are seen as different, or even dangerous, if they are not heterosexual and cisgender. This cultural context often causes shame and doubt at one's own identity. Therefore, SGM individuals are forced to progress through a self-discovery process of identity development before living openly, integrated one's identity into virtually all contexts of life.

Mental Health of Sexual and Gender Minority Adolescents

Researchers in this field consistently show sexual and gender minority (SGM) youth to be at greater risk for developing internalizing symptoms than their heterosexual peers (Marshal, Dietz, Friedman, Stall, Smith, McGinley, Thoma, Murray, D'Augelli, & Brent, 2011), From results of their 2005 study, Williams, Connolly, Pepler, and Craig (2005) support this theory. Examining potential associations between sexual orientation, social support, and victimization in high school students, the researchers sampled 1,598 ethnically diverse adolescents. Using the Beck Depression Inventory (BDI; Beck, Steer, Ball, & Ranieri, 1996) to measure depressive symptoms, researchers found a significant effect of sexual orientation on depressive symptoms F(1, 193) = 8.94, p < 01. Further support comes from a study by Almeida, Johnson, Corliss, Molnar, and Azreal (2009). Utilizing the 2009 Boston Youth Survey to access data from 1.023 adolescents in 9th through 12th grades, the researchers studied perceived discrimination, selfharm, suicidality, and depressive symptomatology SGM adolescents. Perceived discrimination significantly mediated the relationship between SGM status and depressive symptoms. Additionally, use of a one-way ANOVA revealed both SGM females and males to report higher mean levels of depressive symptoms, self-harm, and suicidality than their heterosexual peers (p < p.05).

Udry and Chantala (2005) studied sexual behavior in adolescents, and its associated risks in a sample of approximately 13,000 adolescents in grades 7 through 12. They compared samesex interest and opposite-sex interest in predicting risk. In this study, risk was operationalized as depression, suicidal ideation, delinquency, substance abuse, and victimization. Same-sex interest, for both males and females, significantly increased the risk of depression and suicidal ideation. This is consistent with the findings of Safren and Heimberg (1999), who found sexual minority youth to report higher depression, hopelessness, and suicidality than their heterosexual

peers; however, this increase substantially dropped when stress, social supports, and coping styles were controlled. This indicates that environmental factors may explain a considerable amount of mental health associated risk in sexual minority youth.

Marshal, et al., (2011) further corroborate the relationship between sexual minority status and emotional distress in their meta-analytic research. Compared with 12% of heterosexual youth, 28% of sexual minority youth reported a history of suicidality. Of the 105 odds ratios for the association between sexual orientation and suicidality, 104 were over 1.00, and 25% were over 4.00, and all were significant at the p < .0001 level. Moreover, as the severity of the suicidality increased, the disparity between sexual minority and heterosexual youth also increased. Even researchers whose studies included various controls in their models showed sexual minority youth to endorse a significantly greater history of suicidality than their heterosexual peers. Although the researchers were not able to conclusively determine the reason behind this trend in their meta-analysis, they did suggest that environmental variables, such as victimization and discrimination, might exacerbate a feeling of hopelessness. They further suggested that this hopelessness put sexual minority youth at greater risk of suicidal behaviors (Marshal, et al., 2011).

Besides depression and suicidality, SGM youth are also disproportionately at risk for anxiety (Kopels & Paceley, 2007; LaChance, 2007). Sawyer, Porter, Lehman, Anderson, and Anderson (2006) assessed 941 high school counselors, social workers, school psychologists, and school nurses regarding their perceptions of the mental health risks of their students. Ninety-four percent of participants rated their gay, lesbian, bisexual, and questioning students to be at higher risk for anxiety than their heterosexual peers. D'Augelli (2002) found higher anxiety [r (492) =

.12, p < .01] and somatization [r(492) = .11, p < .01] scores on the Brief Symptom Inventory to be related to being more identifiable by others as gay, lesbian, or bisexual.

Perhaps due to the stigma and discrimination associated with bisexuality, researchers who include bisexual individuals in their samples increasingly find that negative psychological outcomes are often more pronounced for bisexual youth than they are for their gay and lesbian peers. In fact, Hershberger, Pilkington, and D'Augelli (1997) found that adolescents who identified as bisexual were five times more likely to report having attempted suicide more than one time when compared to gay and lesbian adolescents. Similarly, comparing 20 studies examining disparities in the experience of depression and suicidality in sexual minority and heterosexual youth, Marshall, et al. (2011) found that bisexuality significantly moderated the relationship between sexual minority status and suicidality. Those who identified as bisexual were five times as likely to report past suicidality.

Gender diverse adolescents

Although often included under the sexual minority umbrella, transgender adolescents remain understudied in the literature (McGuire, Anderson, Toomey, & Russell, 2010; Russell, Seif, & Truong, 2001). Due largely to the pervasive construct of a gender binary in Western societies, transgender and gender non-conforming adolescents have additional identity development hurdles to those of cisgender adolescents, and face discrimination in both the mainstream and sexual minority communities (Grossman & D'Augelli, 2006). Researchers suggest that transgender adolescents experience more depressive symptoms than their cisgender peers, independent of their sexual orientation (Budge, Adelson, Howard, 2013). Increased suicidality is also significantly higher for this population (Toomey, Ryan, Diaz, Card, & Russell,

2010).

Minority Stress

Through his social–ecological framework, Bronfenbrenner (1977, 1979) proposed that the many levels of the environment (e.g., home, school, community, larger sociopolitical structures) in which children reside are as essential to consider as the personal attributes of the children themselves. In other words, attempts to explain the mental health disparities in SGM youth as compared to their heterosexual peers need to include factors pertaining to their environments, such as the cultural climate for SGM individuals.

Similar to the ideas emphasizing the salience of environmental factors in Bronfenbrenner's framework, Meyer (2003) posited the minority stress theory. Minority stress refers to stress that is chronic, socially based, and in addition to what is experienced by the general public. It occurs in the form of events and circumstances, which range on a spectrum from distal to proximal, and which affect the emotional health of those outside of the dominant culture. The model contains four processes that contribute to people of minority cultures experiencing a disproportionate amount of stress, listed from most distal to proximal: experiencing external events, such as hate crimes, discrimination, and violence; expecting to experience prejudice events, and the vigilance associated with such expectations; concealing one's minority status when possible; and shame, via the internalization of the negative messages one receives about his/her minority status(es). In addition to these four minority stress-specific processes, Meyer accounts for resiliency factors, such as social support, coping skills, and identity characteristics (e.g., the level of integration or salience one's identity is to his/her present life). Building upon Meyer's work, Hatzenbuhler, Nolen-Hoeksema, and Dovidio (2009) examined the roles that social support and coping play in the minority stress model. Results

indicated that coping with stigma in the form of emotion regulation, as well as perceived social support, indirectly effects the relationship between the experience of stigma and psychological distress

School Climate for Sexual and Gender Minority Students

School is one of the most relevant and influential environments for children. As Meyer (2003) suggested in his minority stress theory, the climate of a school is extremely influential, and has been linked in past research to the mental and academic health of its students. According to Marshal et al., (2011), some of the most salient factors shown to be associated with psychosocial risks in SGM youth are the negative responses regarding their sexual orientation or gender identity from others in their communities, particularly in schools. Specifically, researchers show that a hostile school climate is associated with depression, suicidality, anxiety, lower GPA's, truancy, a higher dropout rate, and fewer post-secondary educational aspirations (Baker et al., 2001).

In order to assess the current state of school climate for SGM students across the country, the Gay, Lesbian, and Straight Education Network (GLSEN) conducts the *National School Climate Survey* (NSCS) every two years. Utilizing a number of different online platforms, the researchers at GLSEN obtain a nationwide sample of SGM adolescent experiences in the United States school system. In the NSCS conducted in 2013, GLSEN researchers sampled 7898 students, ages 13-21. Students participated from all 50 states and the District of Columbia. The respondents were largely in grades 10 and 11, although they ranged from grade 6 to grade 12 (Kosciw, Greytak, Palmer, & Boesen, 2014).

From results of the 2013 NSCS, researchers indicated that both verbal and physical harassment contribute to hostile school climates for SGM students. In fact, almost three quarters

of SGM students surveyed reported frequently hearing homophobic or sexist remarks at school (e.g., "gay" used in the pejorative). As a comparison, approximately 40% reported hearing racist remarks at school. Almost 75% of respondents reported being called names or threatened at school due to their sexual orientation, and 56.4% perceived verbal harassment that they felt was due to their gender expression. Unfortunately, these homophobic and sexist remarks did not only come from other students; more than half of the students surveyed indicated that they heard homophobic and/or transphobic comments from school personnel. Approximately half of the respondents reported experiencing relational aggression and cyberbullying in the past year. In addition to verbal harassment, 36.2% of respondents in the 2013 NSCS also reported experiencing a disproportionate amount of physical harassment, such as pushing or shoving, due to their SGM status. Moreover, students indicated they had been punched, kicked, or injured with a weapon in the last year at school. 16.5% of students surveyed perceived this to be due to their sexual orientation, and 11.4% of students stated it was due to their gender expression (Kosciw, Greytak, Palmer, & Boesen, 2014).

Psychological outcomes

In a study exploring potential resilience factors to offset the increased risk of internalizing disorders for SGM youths, Mustanski, Newcomb, and Garofalo (2011) surveyed a community sample of 425 LGB adolescents and emerging adults between the ages of 16 and 24. The researchers gathered information on sexual identity, victimization, peer support, family support, and psychological distress, measured by the Global Severity Index of the *Brief Symptom Inventory* (Derogatis, 1993). Nearly all (94%) of respondents reported experiencing sexual orientation-related victimization of some form, from verbal harassment to physical assaults. However, the psychological distress reported was much more variable. Approximately one-third

of participants reported clinical levels of psychological distress. Moreover, although victimization was positively correlated with distress (r = .27, p < .05), family (r = -.30, p < .05) and peer (r = -.37, p < .05) support were negatively correlated with psychological distress, suggesting the protective power of the climate on one's environment (Mustanski, Newcomb, & Garofalo, 2011).

Specifically examining the potential power of school climate, Birkett, Espelage, and Koenig (2009) administered a questionnaire to 7376 Midwestern seventh and eighth graders. The questionnaire contained items pertaining to sexual orientation, school climate, homophobic teasing, bullying victimization, depression, suicidality, and truancy. Overall, students who selfreported as questioning endorsed the lowest levels of positive school climate of all the sexual orientation categories. Furthermore, students self-identifying as questioning who had the lowest perceptions of school climate had the highest ratings of depression/suicidal feelings. In another ANOVA using depression/suicidal feelings as the dependent variable and sexual orientation and school climate as the independent variables, researchers found a significant interaction between sexual orientation and school climate, suggesting that a positive school climate mitigated the relationship between sexual orientation and depression/suicidal feelings. Notably, in all groups that reported a positive school climate, depression/suicidal feelings were rated the lowest (Birkett, Espelage, & Koenig, 2009).

In a similar study, Espelage, Aragon, Birkett, and Koenig (2008) surveyed high school students, also from the Midwest. Students answered questions pertaining to sexual orientation, parental communication, homophobic teasing, school climate, and depressive/suicidal feelings. The researchers found a significant interaction (F = 19.97, p < .001) between sexual orientation and homophobic teasing, such that the effect of homophobic teasing on depressive/suicidal

feelings was more pronounced for questioning and LGB students than it was for their heterosexual peers. Additionally, the effect of homophobic teasing on perceptions of positive school climate varied across sexual orientation status (F = 4.55, p < .001); students selfidentifying as questioning who experienced the most frequent homophobic teasing endorsed their school climate as less positive than LGB-identified students who reported the same amount of homophobic teasing. The students in the study who reported the highest level of homophobic teasing and the lowest positive school climate endorsed the highest ratings of depression/suicidality (F = 7.38, p < .001). However, students who endorsed moderate to high ratings of positive school climate also endorsed significantly lower ratings of depression/suicidality (Espelage, Aragon, Birkett, & Koenig, 2008).

Fedewa and Ahn (2011) conducted a meta-analysis examining the psychological effects of bullying on both sexual minority and heterosexual youth. Looking at 18 studies published in the 10 years prior to the meta-analysis, the researchers found statistically significant odds ratios for suicidal ideation (k = 4, OR = 2.17, 95% *CI*: 1.76 and 2.66) and suicide attempts (k = 3, OR = 2.41, 95% *CI*: 1.84 and 3.15), among other negative outcomes. The researchers concluded that sexual minority youth are much more likely to endure negative psychological outcomes than heterosexual youth. Moreover, the mean correlations for bullying (z = 5.49, p < .01) and peer victimization (z = 5.16, p < .01) on negative outcomes were statistically significant, suggesting that the negative psychological outcomes experienced by LGB students were related to homophobic bullying. In regards to school climate, the overall odds ratios were statistically significant, indicating the probability of enduring a hostile school climate was 28% higher for sexual minority students than it was for heterosexual students (Fedewa & Ahn, 2011).

Considering the aforementioned findings as a whole, researchers support the theory and research behind Meyer's (2003) minority stress model, in which minority stressors consistently and significantly predict psychological distress and other negative outcomes. In fact, researchers with results showing the effect of a perceived hostile school climate indicate that the mere expectation of rejection, harassment, prejudice, and/or discrimination can predict negative outcomes. These expectations may be validated when experiences of discrimination and heterosexism occur. Following Meyer's model, then, it would make sense that in response to expected discrimination some young people might conceal their sexual identities, in order to feel safer, which has been shown to be the case (Rosario, Schrimshaw, & Hunter, 2008).

Educational outcomes

Negative outcomes associated with minority stressors for SGM students are not isolated to psychological distress. Academic achievement, sense of belonging, attendance, and aspirations are at risk as well.

Grade Point Averages.

In their 2013 National School Climate Survey, GLSEN researchers found that SGM students who reported experiencing high levels of at-school sexual orientation-related victimization had lower grade point averages (GPAs; 3.0 vs. 3.3) than students who reported experiencing lower levels of victimization (r = -.227, p < 0.001). Victimization based on gender expression also produced a significant effect (r = -.201, p < 0.001; Kosciw, Greytak, Palmer, & Boesen, 2014). Lower educational outcomes as a result of hostile school climate issues such as victimization were also shown by Kosciw, Palmer, Kull, and Greytak (2013). The researchers found a significant negative correlation between victimization and educational outcomes (r = -.13). In a study assessing perceptions of LGBQ-related risk, 40% of school personnel rated

sexual minority students to be at greater risk for low academic achievement than their heterosexual peers, indicating that the effect is large enough for personnel to notice (Sawyer, Porter, Lehman, Anderson, & Anderson, 2006).

Whereas other studies have corroborated these findings, some have found them to be more pronounced for bisexual students. Russell, Seif, and Truong (2001) found lower educational outcomes to be particularly salient for boys endorsing bisexual attractions, and bisexual girls to report lower GPAs than their heterosexual peers, with a small effect. According to Kopels and Paceley (2007), bisexual males tend to have poorer grades than their peers. That the effect of negative outcomes may be stronger for bisexual males only provides further support for Meyer's minority stress model, as bisexual males contend with a heterosexist society, discrimination within SGM communities, and the particularly strong gender policing that Western society imposes on its boys (Eliason & Schope, 2007).

School Belonging.

Another way in which SGM students suffer as a result of a hostile school climate is a decreased sense of school belonging. Using an online sample of 145 SGM college-aged students in a retrospective study examining various effects of at-school victimization, Heck, Lindquist, Machek, and Cochran (2014) found at-school victimization to significantly mediate the relationship between school belonging and depression (indirect effect from 5,000 bootstrap samples = -0.348; 95% CI = -0.712 to -0.122), with a significant overall model [F (8, 132) = 5.634, p < .001] that accounted for 20.9% of the variance in depressive symptoms. Due to these findings, the researchers suggested that a sense of school belonging is an important predictor for the mental health of SGM youth and young adults, and may work through the experience of being victimized during high school. In the 2013 NSCS, GLSEN researchers found similar

results, in which students who experienced a higher severity of victimization reported lower levels of school belonging. Results were significant for both victimization based on sexual and gender expression at the p < 0.001 level (Kosciw, Greytak, Palmer, & Boesen, 2014).

The researchers of the 2011 NSCS also found a lower sense of school belonging for SGM students expressed through a lack of participation in athletics. Approximately 23.2% of LGBT students reported participation in interscholastic sports within the past year, and only 13.4% reported participation in intramural athletics. Compared to the national average for high school athletic participation, LGBT students are approximately half as likely to participate in sports as their heterosexual peers (23.2% vs. 47.8%, $\chi 2$ =1799.77, *df*=1, *p* < .001). This is likely related to the finding that more than half of LGBT students reported experiencing bullying or harassment during their P.E. classes due to their sexual orientation or gender expression, and over 25% endorsed being bullied or physically assaulted during participation on their school's sports team (Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2012).

Absenteeism and dropping out.

A common finding in the literature on negative outcomes of a hostile school climate is that SGM students will often skip school as a result of feeling unsafe. According to Birkett, Espelage, and Koenig (2009), LGB students are more likely to report skipping school due to safety concerns than are heterosexual students, and questioning students are the most likely of all. However, this finding was moderated by school climate, showing a positive school climate to be a protective factor for truancy in LGBQ students. The 2013 NSCS researchers found that overall, SGM students who reported experiencing high levels of at-school victimization were approximately three times more likely to have skipped school in the last month Kosciw, Greytak, Palmer, & Boesen, 2014). Sawyer, Porter, Lehman, Anderson, and Anderson (2006) found

school personnel to perceive LGBQ students to be at greater risk for truancy or dropping out than their heterosexual peers. Kopels and Paceley (2007) estimate that between 20 and 30 percent of LGBTQ students have skipped school due to safety concerns, and that LGBTQ students are three times as likely to skip school when compared to heterosexual students.

Future academic aspirations.

Finally, SGM students who have endured a hostile school climate are at risk not only for experiencing negative educational outcomes in the present, but for having reduced educational aspirations as well. Students surveyed in the 2013 NSCS were twice as likely to have no plans for post-secondary education (e.g., college, vocational, or trade school) if they had experienced high levels of victimization than those who had experienced lower levels (8.7% vs. 4.2%; Kosciw, Greytak, Palmer, & Boesen, 2014).

Identity nondisclosure

Consistent with Meyer's minority stress model, when SGM students perceive their environment to be invalidating and/or unsafe, research shows a common coping strategy is sexual or gender identity concealment, or nondisclosure. In D'Augelli's (2002) study, 38% of the youth surveyed stated that fear of verbal abuse influenced their openness about their sexual orientation, and for 28%, their openness about their sexual orientation was influenced by fear of physical abuse. Studying depression and suicidality in sexual minority adolescents, Safren and Heimberg (1999) suggested that the reason(s) that sexual minority youth are at greater risk for psychological distress is not the sexual orientations themselves, but rather "additional environmental variables that accompany being forthcoming and open about one's sexual orientation" (p. 117). LaChance (2007) claimed that lower levels of minority stress are related to

an increased likelihood of sexual identity disclosure.

In a study examining the relationships between sexual identity development, social support, and homophobia in LGB youth, Greywolf (2007) found positive climate by way of social support became increasingly important as sexual identity developed (r = .29, p = .02). Similarly, other researchers have found that many students delay identity disclosure to protect their safety (e.g., Lachance, 2007; Rostosky & Riggle, 2002; Walls, Kane, & Wisneski, 2009). This may be influenced by factors both proximal, such as shame, and distal, such as discriminatory and/or heteronormative laws and policies (LaChance, 2007). Unfortunately, results from the 2013 NSCS indicate that students' concerns about their safety may not be unfounded. Using ANOVAs to determine the differences in victimization by outness, the researchers found the effect for sexual orientation-related victimization on outness to peers was significant (p < 0.001). The main effect for outness to school staff was also significant (p < 0.001). Running an ANOVA for victimization based on gender expression rather than sexual orientation also yielded significant main effects for both outness to peers (p < 0.001), and school staff (p < 0.001; Kosciw, Greytak, Palmer, & Boesen, 2014).

However, as Meyer's (2003) model would suggest, sexual identity nondisclosure is not without its costs. LaChance (2007) maintained that the vigilance required to conceal one's identity comes with the emotional toll of stress and anxiety. Similarly, in their longitudinal study on identity development, Rosario, Schrimshaw, and Hunter (2008) contended that delaying identity integration (of which sexual identity disclosure is one part) contributes to higher rates of depression. The researchers asserted that participants who rated themselves high in sexual identity integration endorsed greater social support, whereas negative social relationships

predicted lower levels of identity integration. Identity integration, in turn, was related to higher levels of psychological adjustment and lower levels of depression and anxiety.

A pilot study by Lindquist and Machek (2014) was conducted online to explore the relationships between identity nondisclosure, perceptions of school climate, and depression. Adolescents and emerging adults between the ages of 18 and 22 were recruited from across the country and assessed retrospectively regarding their experiences with sexual and/or gender identity disclosure, among other things. The researchers found a significant indirect effect from 5,000 bootstrap samples (95% CI = .0102 to .3030) of school climate on the relationship between time spent in the closet and depression. From these results, Lindquist and Machek (2014) suggest that the perceived safety of the community where LGBT individuals attended high school may be a salient factor through which the time one spends concealing one's own sexual or gender identity impacts his or her own mental health. In fact, since the study looked at current depression, a hostile school climate in high school may prevent students from coming out of the closet, which may contribute to depression later in early adulthood.

Researchers of the 2011 and 2013 NSCS also found some benefits to sexual and gender identity disclosure. The researchers asserted that identity expression is a salient factor in adolescent development. Additionally, they articulated that when students feel free to express themselves, they are more likely to feel a sense of school belonging (a lack of which was shown earlier to be associated with a variety of negative outcomes) and well-being. In fact, although outness was associated with greater risk of victimization, results also showed a main effect for outness to both peers and school staff, as it related to self-esteem in the 2013 NSCS (Kosciw, Greytak, Palmer, & Boesen, 2014). Outness was also related to lower levels of depression in the 2011 NSCS (Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2012).

Although identity disclosure is an important part of identity development and has been associated with various psychosocial benefits (LaChance, 2007), it is but one aspect of a fully integrated identity. Other aspects, such as positive feelings about one's sexual or gender identity (and thus lower feelings of homo-and-transnegativity) and a feeling of connectedness with the LGBT community are also important to identity integration. Similar to the work by Rosario, Schrimshaw, and Hunter (2008) that showed identity integration to be associated with positive psychological outcomes, Greywolf (2007) examined relations between sexual identity stages, social support, personal homonegativity, and gay affirmation. In the study, stage of sexual identity development was negatively correlated with personal homonegativity (r = -.235, p = .045), and positively correlated with gay affirmation (r = .31, p = .008), suggesting that more advanced stages of sexual identity development may influence positive feelings about one's sexual identity, as well as a decrease in negative feelings (Greywolf, 2007).

In the context of understanding minority stress through the experiences of SGM youth, both stage theories of sexual and gender identity development and social constructionism are relevant. Stage theories are useful in identifying basic processes common to many SGM individuals, such as discovery, acceptance, and integration (e.g., Coleman, 1982). Social constructionism is a helpful way in which to make sense of the roles that all of the relevant contextual factors may play (e.g., school climate), and to explain developmental fluidity when individuals appear to be at different development stages in different contexts (LaChance, 2007). However, in contemplating identity development through either stage theories or social constructionism, Meyer's (2003) minority stress theory is a relevant backdrop. Without the concept of minority stress, identity development would be unnecessary. Due to Western society's heteronormative sociopolitical structures, laws, and policies, individuals are assumed to be

heterosexual and cisgender until proven otherwise. SGM adolescents are forced to develop "an identity within the context of social stigmatization, often without the support of family, peers, schools, and service providers" (Greywolf, 2007). It is this process of proving within the confines of the society that created the need to prove that creates the stress that SGM individuals report. However, it also may be that through this process of identity integration, psychological health is bolstered.

Taken together, the research herein suggests that school climate may be a powerful tool with which to reduce the minority stress experienced by SGM students, in order to facilitate identity development, thereby creating opportunity for psychological health. School climate has been shown to be associated with increased positive (and decreased negative) psychological and educational outcomes (Kosciw, Greytak, Palmer, & Boesen, 2014). Additionally, it has been found to be related to issues of identity development, such that a hostile school climate may delay identity integration (which in turn increases the risk for depression; Rosario, Schrimshaw, & Hunter, 2008). Therefore, these studies indicate the necessity for the prioritization of school climate for SGM students through policies, education, and support systems.

School supports

According to data from the 2013 NSCS, SGM students who reported a positive and safe school climate attended schools with various specific factors in common. Their school had a support and/or advocacy club for its SGM students and their allies, often called a Gay-Straight Student Alliance (GSA). The curricula in their schools were inclusive of SGM issues, such that positive representations of SGM individuals and events were taught to all students. School-wide nondiscrimination policies were in place, specifically enumerated to include protections based on sexual orientation and gender expression/identity. These policies were well-distributed. School

personnel supportive of SGM students were easily identifiable. These staff consistently and effectively intervened when witnessing any type of harassment based on sexual orientation or gender expression/identity. Finally, safe zones were identified as a respite from any harassment that might occur (Kosciw, Greytak, Palmer, & Boesen, 2014).

Inclusive curricula

For heterosexual students, particularly those who are white, male, and cisgender, positive role models are in abundance throughout the curricula in their classes. SGM students, by contrast, too often have no representations of themselves in the school's curricula, even when an example would be relevant (e.g., studying the poetry of Walt Whitman and excluding information on the inspiration for his work). In fact, data from the 2013 NSCS show that 68.4% of students surveyed reported no representations of LGBT people, history, or events in their courses. Furthermore, 13.1% of students reported being taught about negative representations. For those who were able to attend a school that offered curricula inclusive of positive SGM representations, many positive effects were found. Schools with inclusive curricula were experienced as having a less hostile climate. Students in those schools heard homophobic comments with less frequency (46.3% vs. 68.7% of those attending schools without inclusive curricula). Similarly, they heard negative comments about gender expression with less frequency (43.5% vs. 59.2%). Students in schools with inclusive curricula also subjectively felt safer; 34.8% felt unsafe, as compared to 59.8% of students attending schools without inclusive curricula feeling unsafe due to their sexual orientation. Similarly, students in schools with inclusive curricula felt safer due to their gender expression (23.6% felt unsafe, as compared to 42.0% of students attending schools without inclusive curricula). Finally, students experienced climate as less hostile in schools with inclusive curricula by having significantly lower levels of

severe victimization based on both sexual orientation and gender expression. Data from the survey also showed differences in absenteeism and a sense of school belonging. SGM students attending schools that had inclusive curricula were half as likely to have missed school due to safety concerns. They were also more likely to report higher levels of school belonging. (Kosciw, Greytak, Palmer, & Boesen, 2014). Kosciw, Palmer, Kull, and Greytak (2013) suggest that while inclusive curricula are associated with positive outcomes in a number of different areas, there might be added benefit for schools with especially poor climates, or for students who are severely victimized. Overall, researchers indicate that school curricula that follow the established heteropatriarchy may have negative outcomes for a number of different students by omitting representations of their experiences as positive examples to follow.

Antidiscrimination policies

As discussed previously, researchers have established that SGM students are a vulnerable population in terms of frequency and severity of victimization at school (Birkett, Espelage, & Koenig, 2009). In order for students to be protected from bullying and harassment based on sexual orientation and gender expression, research has shown school-wide policies need to be in place that prohibit such behavior. To maximize effectiveness, antidiscrimination policies need to be: comprehensive, enumerating protections based both on sexual orientation and gender expression/identity, and well-disseminated.

In the 2013 NSCS, only 10.1% of students surveyed indicated that their school had a policy that delineated protections based on both sexual orientation and gender expression/identity. Approximately one in every five students reported that their school did not have an antidiscrimination policy, or that they did not know whether or not a school policy existed, suggesting that antidiscrimination policies are useless if they are not disseminated.

Interestingly, schools with no policies were no different than schools with generic policies, in regards to frequency of homophobic and transphobic remarks. However, schools with comprehensive policies were associated with several positive outcomes for their students. For example, students who attended schools with comprehensive policies reported hearing biased remarks (e.g., "gay" used in the pejorative) with less frequency (59.2% heard these remarks) than did students who attended schools with no policies (80.2%), generic policies (77.1%) or partially enumerated policies (i.e., protections based on sexual orientation or gender expression/identity, but not both; (65.0%) F(15, 23328) = 23.399, p < 0.001.

SGM students attending schools with comprehensive policies experienced significantly lower levels of victimization based on their sexual orientation and gender expression, as compared to their peers who attended schools with generic or no policies.

Comprehensive antidiscrimination policies also positively affected staff intervention in the face of harassment and discrimination. 29.2% of students attending schools with comprehensive policies reported that teachers would intervene "most of the time or always" when witnessing biased remarks. For students attending schools with partially enumerated policies, 24.2% reported teachers intervened "most of the time or always," while 15.7% of students at schools with generic policies and 7.8% of students at schools with no policies said the same (Kosciw, Greytak, Palmer, & Boesen, 2014). Chesir-Tehran and Hughes (2009) also found antidiscrimination policies to be an important protection against at-school victimization. In their study, the students who perceived their schools' antidiscrimination policies to be more inclusive reported less harassment (B = -.08, SE = .02), although that effect was taken away once the variable of inclusive curricula was added into the model. Goodenow, Szalacha, and Westheimer (2006) found that the presence of a comprehensive anti-discrimination policy had a strong

negative correlation with suicidality among SGM students. Taken together, the research suggests comprehensive, well-disseminated antidiscrimination policies are an essential tool for schools to maximize positive school climate, thereby reducing minority stress and its associated negative outcomes.

GSAs

Researchers increasingly and consistently find that gay-straight student alliances (GSAs) are an effective means of providing protections for SGM students. In a study exploring the potential positive outcomes of GSAs, Walls, Kane, and Wisneski (2009) conducted an online survey of 135 youth between the ages of 13 and 22 who identified as gay, lesbian, bisexual, transgender, queer, or questioning. In this study, a lower number of students who attended a school with a GSA (28.89%, n= 39) reported feeling unsafe at school than did students who attended a school without a GSA (40.28%, n=29; $\chi 2= 2.76$, p = .097) at a level approaching significance. Contributing to a sense of safety, students who attended schools with a GSA were significantly more likely to endorse the presence of a safe and supportive adult at their schools than students who attended schools without a GSA (83.70%, n= 113 vs. 55.56%, n= 40; χ 2= 19.30, p < .001). Consequently, students attending schools with GSAs were significantly less likely to report missing school in the past month due to safety concerns than SGM students attending a school without a GSA (8.15%, n= 11 vs. 19.44%, n= 14; $\gamma 2$ = 5.64, p= .018; Walls, Kane, & Wisneski, 2009). Similar findings from the 2013 NSCS also suggested increased safety to be associated with GSAs. SGM students attending a school with a GSA reported hearing homophobic and transphobic remarks less frequently than did SGM students attending a school without a GSA. They also experienced less severe levels of victimization based on their sexual orientation and gender expression than students who attended school without a GSA (Kosciw,

Greytak, Palmer, & Boesen, 2014). Finally, Heck, Flentje, and Cochran (2011) found that SGM youth who attended schools with GSAs reported less at-school victimization regarding their sexual orientation than SGM youth who did not attend schools with GSAs F(1, 137) = 4.394, p = .038, $_p\eta^2 = .031$.

Positive outcomes associated with the presence of a GSA are not confined to issues of safety. Researchers show that SGM students who attend schools with GSAs perform better academically as well. Walls, Kane, and Wisneski (2009) found that SGM students who attended a school with a GSA had higher average GPAs than students who attended schools without GSAs (2.82 vs. 2.58, t = 1.944, p = .026). Furthermore, GSA membership also appeared to have an effect. In schools with GSAs, members had significantly higher average GPAs than nonmembers (3.024 vs, 2.426, t = -3.73, p = .0001). However, GPA was the only variable in which GSA membership provided resilience above what was provided by GSA presence.

A qualitative analysis conducted by Heck, Lindquist, Stewart, Brennan, and Cochran (2013) indicated that GSA membership may be related to issues of identity development. From gathering retrospective information regarding high school experiences with GSAs, results indicated that GSA membership was associated with significantly higher levels of outness during their senior year compared to nonmembers ($\chi 2 = 9.223$, df(1), p = .002). Whereas it is possible that this finding illustrates that SGM students who are open about their minority status(es) are more likely to join their school's GSA, it is also possible that GSA membership decreases minority stress such that identity disclosure feels like a less dangerous option.

Identifiable supportive staff and safe zones

When children experience harassment and victimization, they commonly look to the adults in their lives to rectify the situation. For SGM youth, this is not always possible. For

example, although nearly all participants in the 2011 NSCS were able to identify at least one member of their school's staff that they believed were supportive of LGBT students, less than a fifth of the participants endorsed that school staff frequently intervened when witnessing homophobic or transphobic remarks. Of the students who experienced at-school victimization, most did not report the incident to school personnel. The most common reason for not reporting was distrust in school staff to effectively handle the situation and/or not make it worse. According to the data, this fear seems to be based in reality; 29.8% of students who did report found that school personnel did nothing to address the situation. Only .8% said that school staff attempted to address the issue through education regarding homophobia. Less than a third of students surveyed felt that their administrators were supportive of SGM students (Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2012). Kopels and Paceley (2012) reported that failure to intervene when witnessing victimization based on sexual orientation or gender expression/identity is a common finding in research, but that some school personnel have even worse reactions. For example, McGuire and colleagues (2010) found that approximately onethird of LGBT students reported hearing discriminatory comments from school personnel. Respondents in Grossman and D'Augelli's (2006) qualitative study reported verbal and physical harassment and sexual propositions by teachers. Various studies suggest that transgender students are invalidated in not only these ways, but also by school personnel and administrators refusing to use appropriate names and pronouns, insisting instead to use the names and pronouns that were assigned at birth (Greytak, Kosciw, & Diaz, 2009; Grossman & D'Augelli, 2006).

When SGM students can identify supportive staff, they generally experience other associated positive outcomes as well. For instance, in the 2013 NSCS, SGM students who could identify supportive staff were more likely to feel safe in school, and consequently missed fewer

days of school. In fact, SGM students who could identify ten or more supportive staff members were significantly less likely to feel unsafe due to their sexual orientation or gender expression (p< 0.001). Additionally, they were only half as likely to miss one day of school in the past 30 days, a figure that was supported by Seelman, Walls, Hazel, and Wisneski (2012). Students who could identify supportive staff also endorsed higher levels of school belonging, which, as was discussed earlier, is associated with positive educational outcomes. Indeed, supportive staff was associated with higher GPAs (3.3 for 11 or more identifiable supportive staff members vs. 2.8 for no supportive staff) and higher rates of post-secondary educational aspirations (Kosciw, Greytak, Palmer, & Boesen, 2014).

Alexander, Cunha, Weber, and Russell (2011) also established that supportive staff significantly predicted school commitment (or belonging; r = .33, p < .0.5). Additionally, the researchers found an interaction between homophobic victimization and supportive staff, such that SGM students who experienced high levels of homophobic victimization benefitted more from supportive staff than students who experienced lower levels of homophobic victimization. Positive outcomes associated with supportive staff in this study included: decreased victimization (r=-.28), less absenteeism due to safety concerns (r=-.08), and higher GPAs (r=.06).

Unfortunately, school personnel commonly report that they are unsure of how or when to intervene when they witness anti-gay bullying. Many are unaware of the need for school personnel who are supportive of SGM students. In her review of the literature regarding teacher education of SGM issues, Szalacha (2004) consistently found studies to report that at least half of teacher respondents indicated they were inadequately trained to handle antigay bullying and other SGM-related issues. Even school mental health providers feel ill-equipped to adequately

address the unique needs of their SGM students. Sawyer and colleagues' study on the perceptions of school personnel suggested that whereas many school staff feel unprepared, they also feel unsupported by their administrators; 41% indicated their schools were not doing enough for the SGM students in their care. Barriers included: a lack of training; lack of knowledge and skills; lack of relevant educational materials; fear of parental anger; fear of community opposition; and fear that they would be labeled as sexual minority if they were openly supportive of their SGM students. Virtually all agreed, however, that being supportive of SGM students was an important endeavor, suggesting that administrative support and staff education may be more salient barriers to overcome (Sawyer, Porter, Lehman, Anderson, & Anderson, 2006).

Related to the concept of identifiable supportive staff is the need for zones within a school that are designated as safe for SGM students. Although ideally safe zones would be unnecessary, as the entire school would be a safe zone, researchers indicate that publicly designating certain areas (e.g., a classroom or a teacher's office) as a safe zone, by way of a sticker or a poster, assists students in identifying and accessing supportive staff. In examining the potential effects of GLSEN's safe space stickers and posters, the 2013 NSCS researchers found that SGM students who attended schools with safe space stickers were more likely to be able to identify 11 or more supportive staff members than students who attended schools with no designated safe zones even after controlling for the presence of a GSA. The students also reported a greater likelihood of talking to staff about SGM issues, as well as greater comfort in talking to staff about SGM issues.

For transgender students, designated safe spaces are more than a way to help facilitate an important conversation; they are an issue of safety. Transgender students are too commonly forced by school policy (or lack thereof) to make the choice between using the bathroom that

does not correspond with their gender identity but rather their assigned gender, and risk bullying or harassment; use the bathroom that does correspond with their gender identity and risk discipline from school officials; or wait to use the bathroom until they get home and risk medical complications such as kidney infections. In addition, transgender students face similar dilemmas surrounding changing rooms for physical education and sports (Greytak, Kosciw, & Diaz, 2009; Scharrón-del Río, Dragowski, & Phillips, 2014). Unsurprisingly, choices such as these lead to greater levels of absenteeism and lower levels of school belonging, which in turn are associated with poorer psychological and educational outcomes (Greytak, Kosciw, & Diaz, 2009).

Social supports

Although providing friends for students is not a realistic goal for school systems to attempt, peer support has been found to be a strong protective factor, fitting with both Meyer's 2003 minority stress model, and Hatzenbuler, Nolen-Hoeksema, and Dovidio's (2009) follow-up research. Adolescence is a time in which peers become more prominent. As SGM adolescents navigate not only the identity development common to all adolescents, but sexual identity development as well, normalization of the process through shared experiences can be extremely impactful (Greywolf, 2007). Additionally, as a common milestone in the various identity development theories (e.g., Cass, 1979) involves disclosure to peers and connection to other SGM individuals, peer support is an important consideration when attempting to maximize their emotional health. In fact, peer support has shown to have the strongest association with psychological distress, even above victimization and family support.

Further illustrating the importance of peer support to SGM youth, Mustanski, Newcomb, and Garofalo (2011) found that almost 90% of SGM youth choose their closest friend as their first point of disclosure. Hershberger, Pilkington, and D'Augelli (1997) found that the increased

prevalence of suicidality in sexual minority youth was related to losing friends following sexual identity disclosure. This was validated by D'Augelli (2002), who found a significant relationship between suicide and losing friends $\chi^2(1, N = 494) = 20.25$, p < .001; 52% of LGB youth who had attempted suicide had lost friends due to disclosure, compared with 32% of LGB youth who had not attempted suicide. Grossman (2011) found depression to be significantly negative correlated to social support (r = -.27, p < .001) for transgender youth. Finally, according to Fedewa and Ahn (2011), sexual minority youth are much more likely to suffer from a lack of social support than their heterosexual peers, further illustrating the need for SGM youth to have reliable peer support. These findings suggest that while schools cannot make friends for their students, the impact of peer support cannot be underestimated. The facilitation of opportunities for friendships to be created and peer support systems to be built is yet another way for schools to minimize the degree of minority stress that their students experience.

Rationale and Purpose

Many theories exist to describe the process of sexual and gender identity development (e.g., Cass, 1979; Coleman, 1982; Lev, 2004; Troiden, 1989). Some of these theories take an essentialist perspective, which assumes that sexual and gender orientations are biological realities, waiting to be discovered. According to these stage theories, an individual has selfactualized once s/he is living openly as an SGM individual, integrating an SGM status into virtually all aspects of life, and experiencing positive feelings about his or her SGM status (Rosario, Schrimshaw, and Hunter, 2008). Other theorists feel that sexual identity is a social construction of the hegemonic social norms of heterosexuality and the gender binary. To social constructionists, labels only serve to make some individuals "other," rather than being accurate descriptors; in their true essence, most individuals would experience fluidity in both their

sexuality and gender expression. Regardless of whether the root of sexual and gender minority orientations are due to biology, social construction, or a combination of the two, however, SGM individuals in Western society are essentially invisible until the choice is made (by themselves or others) not to be. To openly identify as sexual or gender minority, an individual must first go through a process that involves self-discovery, disclosure, and hopefully acceptance and integration. This integration is associated with lower levels of psychological distress, while nondisclosure is related to higher levels of depression (Lindquist & Machek, 2014).

Unfortunately, sexual and gender identity development can be interrupted by minority stress (2003). Schools that have a hostile school climate (i.e., students feel unsafe and unaccepted, victimization is high, school belonging is low) are associated with identity nondisclosure. They are also associated with higher suicidality, higher depression and anxiety, lower grades, higher drop-out rates, fewer post-secondary educational aspirations, and higher rates of absenteeism (Kosciw, Greytak, Palmer, & Boesen, 2014).

Researchers from the Gay, Lesbian, and Straight Education Network (GLSEN) have articulated several evidence-based strategies to improve a school's climate for SGM youth. They include: GSAs; comprehensive and well-disseminated antidiscrimination policies that specifically include protections based on sexual orientation and gender expression/identity; identifiable staff who are supportive and accepting of SGM students; safe zones; peer acceptance; and curricula that include positive representations of SGM individuals and SGMrelated historical events. Results from the 2013 *National School Climate Survey* (NSCS) show all of these to improve school climate, thus improving the negative outcomes associated with a hostile school climate (Kosciw, Greytak, Palmer, & Boesen, 2014).

Within the context of the current study, it is hoped that framing identity development within the minority stress model will expand the body of research on protective factors. Specifically, by focusing on common obstacles to identity integration, pathways may be found toward removing those obstacles.

Therefore, the current study is concerned with whether relationships between sexual and gender identity nondisclosure and negative psychological and academic outcomes differ as a function of the school supports listed previously, by improving school climate (and therefore reducing minority stress).

Hypotheses

Research area one: psychological outcomes

What is the relationship between identity integration and psychological distress?

The first two hypotheses seek to replicate past research regarding the relationship between identity development and depression. Specifically, Rosario, Schrimshaw, and Hunter (2008) found that higher levels of identity integration contributed to lower levels of both depression and anxiety.

Hypothesis 1: Among sexual and gender minority individuals, degree of identityintegration in high school (HSII) will be negatively correlated with levels of depression.Hypothesis 2: Among sexual and gender minority individuals, HSII will be negativelycorrelated with levels of anxiety.

Research area two: academic outcomes

What is the relationship between identity integration and academic outcomes?

Although identity integration and its relationship to school belonging has not been studied directly, results from the 2011 NSCS indicated that outness (one part of identity

integration) was related to a greater sense of school belonging (Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2012). Therefore, hypothesis three seeks to extend the research in this area.

Hypothesis 3: Among sexual and gender minority individuals, HSII will be significantly positively correlated with school belonging.

The relationships between identity integration and both absenteeism and GPA are also absent within the extant literature. However, research does show that students are less likely to be "out" if environmental factors, such as school climate, are hostile to SGM individuals (Safren & Heimberg, 1999). In turn, a hostile school climate has been shown to be associated with higher levels of absenteeism (Birkett, Espelage, & Koenig, 2009) and lower GPAs (Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2012). Therefore, hypotheses four and five extend the research by directly examining the relationships between identity integration and absenteeism, and identity integration and GPA.

Hypothesis 4: Among sexual and gender minority individuals, HSII will be significantly positively correlated with GPA.

Hypothesis 5: Among sexual and gender minority individuals, HSII will be significantly negatively correlated with absenteeism.

Research area three: school supports

Does school climate change the relationships between identity integration and psychological and academic outcomes?

To answer this question, the following indicators of school climate were entered into a best subsets regression model in order to determine which combination of school climate indicators best predict each of our psychological and academic outcomes: GSAs, inclusive curricula, antidiscrimination policies, supportive staff, safe spaces, peer acceptance. From those

analyses, a composite variable, "school supports," was created by summing the raw Likert scores across the predictor variables retained in the best subsets analysis.

Building upon research by Hatzenbuhler, Nolen-Hoeksema, and Dovidio (2009) that showed perceived social support to have an effect on the relationship between stigma and psychological distress, hypotheses six and seven examines relationships between identity integration, school supports, and two psychological outcomes:

Hypothesis 6: Among sexual and gender minority individuals, "school supports" will moderate the relationship between HSII and depression.

Hypothesis 7: Among sexual and gender minority individuals, "school supports" will moderate the relationship between HSII and anxiety.

Finally, extending the research on minority stress (Meyer, 2003) to specifically examine academic outcomes, hypotheses eight through ten seek to show relationships between identity integration, school supports, and three academic outcomes:

Hypothesis 8: Among sexual and gender minority individuals, "school supports" will moderate the relationship between HSII and school belonging.

Hypothesis 9: Among sexual and gender minority individuals, "school supports" will moderate the relationship between HSII and GPA.

Hypothesis 10: Among sexual and gender minority individuals, "school supports" will moderate the relationship between HSII and absenteeism.

Chapter II

Method

Participants

Participants were recruited from college, community college, and university student groups for sexual and gender minority students across the United States (e.g., gay-straight alliances), as well as from community centers designated for sexual and gender minority adolescents and young adults. Group administrators were contacted via e-mail or phone, and asked to forward a recruitment e-mail to their members aged 18-24, and/or post a link to the study on their social networking page(s), and/or forward the link via email. The group administrators were asked to blind carbon copy (BCC) the researcher on any relevant recruitment e-mails sent to their members, in an attempt to track the total number of groups participating in the study, and triage any questions and/or concerns. However, very few did so. No names or identifying numbers were used in the study, in order to protect confidentiality. In addition, the online system used, Qualtrics, creates a unique user identification number for each respondent, blinding the researcher to potentially identifying email addresses.

Procedures

Participants were directed to the hyperlink of the study via emails and social networking sites, such as Facebook, Reddit, and Tumblr, which were provided by the researcher. Once there, they were presented with an informed consent form, on which they were given the options to agree or disagree to participate in the study. In addition, participants were given a notification that as incentive for completing the study, they would be given the chance to enter a drawing for one of three fifty dollar gift cards after finishing the questionnaires. This was followed by a series of questionnaires, which took approximately 25 minutes to complete. In order to track the various methods in which participants were ultimately recruited, they were asked how they heard about the study. Options included, "From an email from my college Gay-Straight Alliance,"

social networking site (indicate which site)," or "Other (indicate how you heard about this study." Upon finishing the questionnaires and demographics section, participants were provided with a short debriefing statement that included contact information for any questions or concerns that may arise. Finally, participants were given the opportunity to enter a drawing for a gift card. For the participants who indicated interest in the drawing, a separate link was provided, through which the participant could enter an email address. The two links were separate and distinct, ensuring no participant contact information could be traced to survey answers.

Statistical procedures. To determine whether a significant interaction, or moderating effect, was present, multiple moderated regression analyses were performed (Aiken & West, 1991). Due to the fact that the variables in question were not measured on scales with a meaningful 0, centering was necessary prior to analyses being run. To run the analyses, the model first included identity integration as a predictor variable, and depression and anxiety as criterion variables in separate analyses. These bivariate correlations addressed hypotheses one and two, in an attempt to replicate previous research that found those relationships to be significant. To address hypotheses three, four, and five, this process was repeated using the academic outcome variables (GPA, school belonging, and absenteeism) as criterion variables in separate analyses. School supports were then be added to the model, in order to test for significant interaction effects of identity integration and school supports on psychological outcome variables. These analyses addressed hypothesis six and seven, to explore whether school supports moderated the relationships between identity integration and psychological outcome variables, with the presence of school supports acting as a buffering agent against negative psychological outcomes in SGM adolescents. Finally, to address hypotheses eight

through ten, this process was repeated using school belonging, GPA, and absenteeism as criterion variables in separate analyses.

Exploratory statistical procedures. In addition to the analyses outlined above, differences in sub-populations were tested, between populations of sexual minority participants (e.g. gay/lesbian vs. bisexual/pansexual), and between sexual and gender minority participants. Additionally, analyses were run split by gender (i.e., male, female, and gender diverse).

Sample Size Determination.

The variability in effect sizes for these areas of research is inconsistent. For example, examining the correlation between LGBT victimization and depression, Toomey et al. (2010) found a moderate effect (r = .32). Williams et al. (2005) found a small effect for both the correlation between sexual orientation and victimization experiences (r = .18) and the correlation between sexual orientation and depressive symptoms (r = .17). Given the inconsistency of research findings, predicting a total sample size needed to obtain adequate power to detect significant differences is difficult. According to G*Power (Faul, Erdfelder, Buchner, & Lang, 2009), in order to obtain a small effect size (.15) with sufficient power (.80), 40 participants were necessary. However, Kenny (2010) maintains that, due to the low power typically found in multiple moderation models that include at least one continuous variable, a sample size greater than or equal to 200 is recommended, in order to protect against the threat of a Type II error. In the pilot study (Lindquist & Machek, 2014), 243 participants were used. Finally, by recruiting a larger sample from multiple states, it was intended that the sample be more representative of populations of varying political climates, geographical regions, and degrees of acceptance.

Measures

Many of the measures used were adapted in order to capture for high school experiences. Whereas there are known issues with recall in use of retrospective measures (Hegarty, 2009), other researchers have found retrospective measures to have moderate –to-strong validity, and to significantly predict their outcomes in question (Mazza, Catalano, Abbott, & Haggerty, 2011). In order to minimize recall issues, the current study required participants only to recall experiences from their senior year of high school, rather than their entire high school or middle school experiences.

Identity Development. To measure identity development, a few measures were utilized, as the construct is multidimensional. Based on the theory proposed by Rosario, Schrimshaw, and Hunter (2008), identity development is comprised of two processes; identity formation and identity integration. Therefore, first, identity formation was assessed. Then two separate measures were used to measure identity integration: one that assessed identity disclosure, and another that assessed positive attitudes toward SGM status(es) and comfort of disclosure to others.

Identity Formation. Similar to the procedure used by Rosario, Schrimshaw, and Hunter (2008) participants were asked the ages of four psychosexual stages in order to assess identity formation. Stages assessed were: (a) age of first awareness, (b) age of first thought that they "might be" SGM, (c) age when they thought they "really were" SGM, and (d) age of first same-sex sexual experience.

Identity Integration. Rosario, Schrimshaw, and Hunter (2008) define identity integration as identifying openly and feeling positively about one's SGM status. As the current study shares this perspective, measures were found to assess those specific aspects of identity development.

Identity Disclosure. To measure identity disclosure, participants were asked to complete the *Outness Inventory* (Mohr & Fassinger, 2000), which was modified so participants could indicate their level of outness both currently, and during their senior year in high school. Additionally, modifications were made to make this measure relevant to transgender individuals. The OI is a self-report measure containing 16 items, each of which assesses the level of outness to various members of an individual's life on a 7-point likert-type scale, ranging from "Person definitely does not know about your sexual/gender orientation status" to "Person definitely does know about your sexual/gender orientation status, and it is openly talked about." The Outness Inventory has shown internal consistency from ($\alpha = .79$ to $\alpha = .97$) by Mohr and Fassinger (2000), and $\alpha = .72$ by Vaughan and Waehler (2010). In the current study, internal consistency was $\alpha = .84$ for high school outness and $\alpha = .80$ for current outness.

Positive Attitudes Toward Sexual or Gender Minority Status and Comfort of Disclosure to others. In order to assess participants' attitudes toward their minority statuses, as well as their levels of comfort with others knowing about their minority statuses, the Nungesser Homosexual Attitudes Inventory (NHAI; Nungesser, 1983) was administered. This 32-item scale measures attitudes toward one's own sexual minority status, attitudes toward sexual minorities in general, and reactions of others knowing about one's own minority statues. The measure has shown high internal consistency ($\alpha = .94$; Szymanski, Kashubeck-West, & Meyer, 2008), and was modified to improve content validity (Shidlo, 1994). In the current study, it was further modified to be relevant to gender diverse individuals. Changes were also made to make the measure retrospective, such that it assessed participants' attitudes in their senior year of high school, in addition to current attitudes. Internal consistency was $\alpha = .94$ for high school attitudes, and $\alpha = .92$ for current attitudes. Finally, a qualitative question was added to address any potential

change in integration that might have occurred: "If you feel more comfortable in your minority identity currently than you did in high school, to what do you owe the change?"

Depression and anxiety. Depression and anxiety were measured by the short form of the *Depression Anxiety Stress Scale* (DASS-21; Lovibond & Lovibond, 1995a). This is multidimensional self-report measure that assesses level of depression, anxiety, and tension/stress. Cronbach's alpha's for the three subscales have shown to be: α =.94 for depression, α =.87 for anxiety, and α =.91 for stress (Antony, Bieling, Cox, Enns, & Swinson, 1998). In a study exploring the factor structure of the DASS, Lovibond and Lovibond (1995b) showed the DASS anxiety scale to be correlated (r = 0.84) with the Beck Anxiety Inventory, and the depression scale to be correlated (r = 0.74) with the Beck Depression Inventory. Studies have validated its use in clinical (Ng, Trauer, Dodd, Callaly, Campbell, & Berk, 2007) and nonclinical (Crawford & Henry, 2003) samples. In the current study, internal consistency was $\alpha = .805$ overall, $\alpha = .868$ for depression, and $\alpha = .806$ for anxiety.

School Belonging. School belonging was assessed using a modified version of the school connectedness scale used by Waters and Cross (2010). The five-item, five-point, likert-type scale was developed for use in the Add Health study, and has shown an internal consistency of .81 when all five items are used (Heck, Lindquist, Cochran, & Machek, 2014). Items were modified to from the present tense (e.g., "I feel like I am a part of my school,") to past tense (e.g., "I felt like I was a part of my school."). Internal consistency in this study was $\alpha = .79$.

Suicidality. Participants were asked one question about suicidality: "Please indicate how many times you have attempted suicide in your lifetime."

Absenteeism. To measure attendance, participants were asked to estimate how many days on average they were absent from school in a typical month of their senior year of high

school. They were then asked to indicate how many of those absences were due to safety concerns.

Grade Point Average. Participants were asked to report their cumulative GPAs at graduation. Because schools now use different scales (e.g., for some schools, it is possible to earn a GPA of higher than 4.0), a question was added asking the highest possible GPA of their school's scale. Answers were given in a free choice format. However, many participants were unsure of the scale of their GPA. Therefore, all GPAs above 4.0 were counted as 4.0; GPA was calculated on a continuous scale from 0.0 to 4.0.

Educational Aspirations. To assess educational aspirations, participants were asked, "In regards to your future academic plans, please indicate the highest level of education you plan on completing." Answers mirrored the choices used in GLSEN's 2013 *National School Climate Survey*, and included "Not sure," "High school/GED," "Some college/Associates degree," "Bachelor's degree," "Master's degree," and "Doctoral degree."

School Supports. Six variables were gathered to measure school supports. For some, participants were asked about the presence or absent of the support. For others, more elaboration was necessary.

Gay-Straight Student Alliances (GSAs). GSAs were measured in two ways. First, participants were asked to indicate the presence or absence of a GSA in their high school. Next, for those students who indicated the presence of a GSA in their high school, additional questions were asked pertaining to the activity of the GSA, and the general make-up of its participants (e.g., percentage of members who identified as gay or lesbian, bisexual, transgender, and straight, respectively). These questions were based on results of the qualitative study by Heck, Lindquist, Stewart, Brennan, and Cochran (2013).

Supportive Staff. Level of supportive personnel was assessed based on procedures from the 2011 NSCS (Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2012). Participants were asked how many staff members they could identify who were supportive of LGBTQ students. Answers were given in a free-choice format.

Antidiscrimination policy. Participants were asked to "Please indicate the type of antidiscrimination policy at the high school that you attended for the longest period of time." Possible answers included, "None/don't know," "My high school's policy was generic to all types of harassment. No protections based on sexual orientation or gender expression/identity were provided," "My high school's policy included protections based on sexual orientation OR gender expression/identity, but not both," and "My high school's policy included protections for both sexual orientation and gender expression/identity."

Inclusive curricula. To assess the presence or absence of inclusive curricula in participants' high schools, the following question was asked: "Please indicate if you agree with the following statement: I was taught about positive LGBT role models or LGBT-related events in my classes." Additionally, participants were given a free-text option to answer which classes included material on LGBT individuals and LGBT-related events, as well as to specify any examples they could remember.

Safe Zones: Safe zones were assessed via two forced-choice questions. The first question asked about the presence or absence of spaces designated as safe for LGBTQ students. Next, participants were asked about the presence of gender-neutral bathrooms or changing rooms available to students.

Peer Acceptance. Peer acceptance was assessed in two ways. First, participants were asked about how accepting peers were of LGBTQ individuals in their schools. Answers were on a five-

point scale ranging from "Not at all accepting," to "Very accepting." Next, participants were asked about the percentage of accepting peers in their high schools. Answers ranged on a five-point scale from "less than 10%" to "over 75%".

Demographics. Demographics included age, race/ethnicity, current occupational and/or educational status, state of residence, state of residence during senior year of high school, gender identity, and sexual orientation. Gender options included: female, male, male-to-female transgender, female-to-male transgender, genderqueer, and other.

Sexual orientation. Sexual orientation can be measured on a number of different dimensions, including identity, behavior, and attraction (Diamond, 2003; Savin-Williams, 2006). Those who self-identify as sexual minority constitute the smallest group of individuals of these dimensions, although this is the dimension most often used to operationalize sexual minority status in research (Savin-Williams, 2001, 2006). In the current study, questions used to determine sexual orientation assess identity, behaviors, and attractions on a continuous scale, as described by Savin-Williams (2006). For the purposes of this study, sexual minority included anyone who: (a) does not explicitly self-identify as heterosexual, (b) does not exclusively have sex with members of the opposite sex, or (c) does not exclusively find members of the opposite sex to be sexually attractive.

Chapter III

Results

Sample Characteristics

Participants were recruited from student and community groups for sexual and gender diverse individuals around the United States beginning in late 2014 and ending in mid-2015. A total of 442 18-24 year old participants (M = 20.66, SD = 2.13) started the survey, and 243

completed it. Of the participants who completed the survey, 47% heard about the study through their college or university GSA. Thirty-six percent of participants heard about the study through a social networking website, 5.6% through a friend/colleague/classmate, 5.1% through their local community center for SGM individuals, and 5/6% heard about the study through other sources. The participants who answered the question about sexual orientation included 98 (40.4%) who identified as bisexual/pansexual, 101 (41.7%) who identified as gay/lesbian, 9 (3.7%) who identified as straight, 7 (2.8%) who were unsure/questioning of their sexual identity, and 28 (11.5%) who chose to identify as "other." Participants were then given the option to specify what they mean by "other." Thirteen participants subsequently defined what they meant by "other": four participants articulated asexual as their identity, one as gray asexual, two as asexual panromantic, two as queer, and one of each of the following: gray asexual panromantic, sapiosexual, demisexual, and queer. To elaborate upon sexual identity, participants were asked how they view their sexual orientation, given a 7-point Likert scale. Seven (2.8%) identified "exclusively heterosexual" as best describing their sexual orientation. Eleven (4.6%) identified as "predominately heterosexual, but incidentally homosexual," while twenty-two (9.2%) identified as "predominately heterosexual, but more than incidentally homosexual." Fifty-eight (23.4%) participants identified "equally heterosexual and homosexual" as best describing their sexual orientation, 31 (12.4%) participants identified as "predominately homosexual, but more than incidentally heterosexual," 63 (25.7%) participants identified as "predominately homosexual, but only incidentally heterosexual," and 50 (20.2%) participants identified "exclusively homosexual" as best describing their sexual orientation. Of the 7 participants who described their sexual orientation as "exclusively heterosexual," one participant identified his gender as "transgender female-to-male," two participants identified their gender as female, and

four identified as male. All six cisgender participants who described their sexual orientation as exclusively heterosexual reported having attractions to both males and females during their lifetimes. In other words, although these participants identified as heterosexual, they were attracted to people of multiple genders.

The sample consisted of the following gender characteristics: 53 (22%) participants identified as male, 126 (51.8%) participants identified as female, 7 (2.8%) participants identified as transgender male-to-female, 17 (6.9%) participants identified as transgender female-to-male, and 40 (16.5%) participants chose "other" as their gender option. Again, participants were given the option to articulate their gender if they chose the "other" option, and 15 chose to do so: four participants specified their gender as non-binary, three as agender, three as gender fluid, two as gender queer, one as genderqueer/nonbinary, one as trans-neutral agender, and one participant described their gender as questioning, and that they were considering "genderqueer or trans* FTM."

The majority of participants (n = 208; 85.8%) in this study identified themselves as European American. Latino(a) American participants made up the next largest racial/ethnic group (n = 17; 6.9%) followed by Native Americans (n = 11; 4.6%), African Americans (n = 10; 4.1%), Other (n = 9; 3.7%), and Asian Americans (n = 8; 3.2%). Participants were allowed to choose as many categories as applied. Additional demographic information related to the state, region, and population of the town where participants attended high school can be found in Tables A.1 and A.2 in Appendix A.

Variable creation

Identity Integration.

In order to create the variables measuring identity integration (in high school; HSII, and currently; CII), the 32 items of the NHAI and the seven items of the OI were subjected to principal components analysis (PCA) using SPSS Version 21.0 (IBM Corp., 2013).

High School Identity Integration. Prior to performing the PCA, the suitability of all data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Oklin value was .919, exceeding the recommended value of .6 (Kaiser, 1970) and Bartlett's Test of Sphericity (Barlett, 1954) reached statistical (p < .001), supporting the factorability of the correlation matrix.

Principal components analysis revealed the presence of eight components with eigenvalues exceeding one (1.0), explaining 33.977%, 9.147%, 5.969%, 3.567%, 3.086%, 2.981%, 2.742%, and 2.589 of the variance, respectively (Table in Appendix A). An inspection of the scree plot showed a clear break after the third component. Using Cattell's (1966) scree test, it was decided to retain three components for further investigation. This was further supported by the results of the parallel analysis, which showed only three principal components with eigenvalues greater than the average generated by the parallel analysis program, Monte Carlo (Watkins, 2000). The parallel analysis program used values from a randomly generated data matrix of the same size (39 variables x 442 respondents).

The three-component structure explained a total of 49.062% of the variance, with Component One contributing 33.977%, Component Two contributing 9.147%, and Component Three contributing 5.972%. To aid in the interpretation of the three components, oblimin rotation was performed. The rotated solution revealed the presence of simple structure (Thurstone, 1947) with all three components showing a number of strong loadings and all variables loading substantially on only one component. The interpretation of the three components was consistent with previous

research on identity development (Rosario, Schrimshaw, & Hunter, 2010) with items relating to individual pride loading onto Component One, items pertaining to community pride loading onto Component Two, and items regarding outness loading onto Component Three. There were weak correlations between the three factors, the strongest being the correlation between the Components One and Three (r = .365). Internal consistency for HSII was $\alpha = .930$.

Current Identity Integration.

Prior to performing a PCA for current identity integration (CII), the suitability of all data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Oklin value was .867, exceeding the recommended value of .6 (Kaiser, 1970) and Bartlett's Test of Sphericity (Barlett, 1954) reached statistical (p < .001), supporting the factorability of the correlation matrix.

Principal components analysis of CII revealed the presence of 10 components with eigenvalues exceeding one (1.0), explaining 25.69%, 8.95%, 5.97%, 4.25%, 4.02%, 3.20%, 3.02%, 2.92%, 2.74% and 2.57% of the variance, respectively (Table in Appendix A). An inspection of the scree plot showed a clear break after the fourth component. Using Cattell's (1966) scree test, it was decided to retain four components for further investigation. This was further supported by the results of the Parallel Analysis, which showed only four components with eigenvalues greater than the average generated by the parallel analysis, using values from a randomly generated data matrix of the same size (39 variables x 442 respondents).

The four-component structure explained a total of 44.86% of the variance, with Component One contributing 25.69%, Component Two contributing 8.95%, Component Three contributing 5.97%, and Component Four contributing 4.25%. To aid in the interpretation of the four components, oblimin rotation was performed. The rotated solution revealed the presence of

simple structure (Thurstone, 1947) with all four components showing a number of strong loadings and all variables loading substantially on only one component. The interpretation of the four components was consistent with previous research on identity development (Rosario, Schrimshaw, & Hunter, 2008) with items relating to individual pride loading onto Component One, items pertaining to community pride loading onto Component Two, items regarding outness loading onto Component Three, and items about disclosure fears loading onto Component Four. This diverged from the HSII solution only somewhat: in HSII, items comprising Component Four in CII (Disclosure Fears) were subsumed under Component One (Individual Pride) in HSII; however, Components Two and Three remained the same for both scales. There were weak correlations between the four factors (the strongest being the correlation between Components One and Four; r = .352). Internal consistency for CII was $\alpha = .827$.

School Supports.

In order to determine which indicators of school climate best predict negative psychological and academic outcomes, a best subsets regression analyses was run for each of the five outcome variables. Best subsets regression is an automatic linear model that provides the best model fit for specified predictors. Output provided includes all significant models and beta coefficients. Using the outcome variable "Total Depression," the best fitting model included peer acceptance, safe spaces, and presence of GSAs. "Total Anxiety" was best predicted by indicators of peer acceptance and presence of GSAs. Peer acceptance, presence of GSAs, safe spaces, and antidiscrimination policies predicted "Total School Belonging." Only supportive staff significantly predicted "Absenteeism." There were no significant predictors of GPA, so this variable was dropped from future analyses.

Once indicators of school climate were determined for each outcome variable, z-score transformations were computed for all dependent variable items, then the respective variables were added together to create each school support dependent variable. For example, individual items for "peer acceptance" were standardized and averaged to come up with an overall "peer acceptance" value for each case. The same was done for "safe zones" and "GSAs." These three values were then added together to create the independent "school supports" variable for the outcome variable of Total Depression (SSDep). This process was done with each of the independent variables corresponding to the dependent variables of interest.

Statistical analyses: Hypotheses results

Bivariate correlation was used to address hypotheses one through five. Specifically, it was used to determine whether degree of identity integration in high school (HSII) significantly predicts current level of depression and anxiety, and retrospective levels of school belongingness, absenteeism, and high school GPA. High school identity integration (HSII) was negatively correlated with depression r(199) = -.154, p = .015, supporting Hypothesis One. HSII was also negatively correlated with anxiety, at a level approaching significance r(200) = -.119, p = .09, trending toward support for Hypothesis Two. Hypothesis Three was also supported; HSII was significantly correlated with School Belongingness r(199) = .303, p < .001. Although there was a significant relationship between HSII and high school GPA, the direction was the opposite of the predicted direction r(190) = -.159, p = .028, thus failing to support Hypothesis Four. No support was found for Hypothesis Five, exploring the relationship between HSII and absenteeism r(194) = -.005, p = .943.

A multiple regression model was tested to investigate whether the association between identity integration in high school and current depression changes as a function of school

supports. After centering HSII and the school supports variable created for the depression model and computing the HSII by school supports interaction term (Aiken & West, 1991), the two predictors and interaction were entered into a simultaneous regression model. The model approached significance (p = .066), explaining 3.7% of the variance. In the model, HSII was the only significant predictor of depression ($\beta = -.206$, p = .011), and the interaction was not significant; therefore, Hypothesis Six was not supported. Similarly, in the model predicting anxiety, HSII was the only significant predictor ($\beta = -.176$, p = .033), and there was no interaction effect, failing to provide support for Hypothesis Seven. Additionally, the overall model for Hypothesis Seven was not significant ($R^2 = .027$, p = .160). The model predicting school belonging was significant (p < .001), explaining 11% of the variance. In this model, HSII significantly predicted school belonging ($\beta = .245$, p = .002), and school supports predicted school belonging at a level approaching significance ($\beta = .128$, p = .085). The interaction was not significant, failing to find support for Hypothesis Eight. As no school supports significantly predicted GPA, the analysis attempting to support Hypothesis Nine was not run. Finally, to test Hypothesis Ten, a standard regression model was run using absenteeism as the outcome variable. This model approached significance (p = .075), explaining 7.6% of the variance. In this model, HSII did not significantly predict absenteeism. However, school supports ($\beta = .413$, p = .011) and the HSII by school supports interaction term ($\beta = -.367$, p = .022) did significantly predict absenteeism, providing support for Hypothesis Ten. Tables and figures for these analyses can be found in Appendix A.

To better understand the significant interaction, simple slopes for the association between HSII and absenteeism were tested at low, moderate, and high levels of school supports. Cut-off points between the levels were determined by dividing the sample into three equal levels, and

adjusting the levels to ensure that no two levels contained the same value. In this way, clear differences between value levels were created. In the low support group, the simple slope test revealed a significant positive association between HSII and absenteeism with an Adjusted R^2 of .004. Moderate (Adjusted $R^2 = .037$) and high (Adjusted $R^2 = .001$) groups of support both showed a significant negative correlation, although in the high support group, the relationship was almost nonexistent. In other words, participants with low levels of school supports were more likely to be absent as they became more integrated in their identity. Conversely, participants with moderate levels of support, absenteeism was somewhat less likely as they became more integrated, but only to a very small degree.

Chapter IV

Discussion

The current study brings together Rosario, Schrimshaw, and Hunter's (2008) theory of identity development with GLSEN's work on the indicators of school climate shown to facilitate the academic success and mental health of SGM students. In doing so, it strengthens existing research by replicating results across several domains. Furthermore, it expands the current body of research by examining relationships between identity integration and academic indicators of success, in the context of school climate.

Before entertaining the main hypotheses, other notable findings will be discussed. Specifically, inclusive curricula did not show up as a "school climate" predictor for any of the outcome variables. Additionally, there was a differing factor structure for the two identity integration scales.

School Climate

Prior to running the analyses that addressed the hypotheses, we created "school support" variables using best subsets regression. Indicators of school climate (presence or absence of GSAs, peer acceptance, antidiscrimination policies, supportive staff, safe zones, and inclusive curricula) were tested to see which combination of school climate indicators best predicted each outcome variable (e.g., depression, anxiety, school belongingness, GPA, and absenteeism). Of note, however, is that one indicator, inclusive curricula, was not retained in any of the best subsets solutions. This is particularly interesting because the presence of inclusive curricula is the indicator that provides the least direct route to the perception of personal acceptance. Adolescence is a stage of life in which people rely more heavily on the opinions of their peers and acceptance of others. It follows, then, that the most robust predictors of positive outcomes for adolescents are those that are directly related to policies regarding their interpersonal treatment by others, as well as opportunities to genuinely interact with others in a "safe zone." Peer acceptance, supportive staff, presence of GSAs, safe zones, and antidiscrimination policies directly relay those imperative messages of acceptance and safety and/or provide opportunities for interactions with others; however, curricular content is more indirect. Furthermore, it is possible that the measureable effects of inclusive curricula are very small. Attitude shifts are rarely seismic and even those that are swaved are slightly offset, when considering averages, by those that are staunchly disavowing of SGM identities and behaviors.

It is also possible that inclusive curricula play a role in a more complex way than the current study sought to analyze. For example, previous research indicates that inclusive curricula predict lower absenteeism when mediated by rates of victimization (Kosciw, Palmer, Kull, & Greytak, 2013), which might indicate that inclusive curricula are protective for those SGM youth who experience LGBT-related victimization at school. Overall, however, consistent with the

current study, there is less evidence that inclusive curricula contribute to positive psychological outcomes (Kosciw, Palmer, Kull, & Greytak, 2013). Finally, it is likely that inclusive curricula did not significantly predict any of the psychological or academic outcomes simply as a function of low power. Had the overall dataset been larger, then so, too, would the number of participants responded positively to the inclusive curricula item. As it stands, however, only 18 (8.3%) participants rated their school's curricula as inclusive of LGBT historical figures and events. This is consistent with results from the 2013 NSCS, which found that only 18.5% of participants rated their curricula as inclusive.

The other noteworthy result in the search for school climate indicators that significantly predicted the outcome variables of interest was that nothing predicted the particular outcome variable of GPA. In 2010, Walls, Kane, and Wisneski found the presence of GSAs to predict higher GPAs for LGBT students. Additionally, Kosciw, Palmer, Kull, and Greytak (2013) found that the presence of supportive school staff was related to higher GPAs. One possible explanation lies in how GPA was handled as a variable in the dataset. To accommodate the various scales on which GPAs are calculated, participants were asked to enter both their GPA, as well as the highest possible GPA on the scale their school used. However, many participants did not know and/or opted to not answer the latter question regarding the scale. Therefore, GPA was calculated on a 4.0 scale; any GPA over 4.0 was calculated as 4.0. Unfortunately, this created a variable with low variability (Mean = 3.52, Median = 3.67, Mode = 4.0, SD = .476). This issue was likely exacerbated by recruitment techniques that may have introduced sampling bias. Specifically, participants were largely recruited from GSAs located in four-year universities. Therefore, the population sampled represents the segment of the SGM communities that achieved a high enough GPA to earn admission into college.

Identity Development

In order to measure identity integration, scales were created for two different times in the participants' lives: currently (i.e., emerging adulthood), and retrospectively, for their senior year of high school. Analyzing the principle components of the identity integration scale for each of the time periods revealed differing factor structures. Specifically, the factor structure for current identity integration (CII) was comprised of four components: Individual Pride, Community Pride, Outness, and Disclosure Fears. High school identity integration (HSII) was comprised of only three: Individual Pride, Community Pride, and Outness. Items that composed Disclosure Fears in CII were subsumed under Individual Pride in HSII.

One reason for this difference in factor structure could be due to well-known issues with retrospective recall (e.g., Hegarty, 2009), which may help explain why the retrospective scale for identity development during high school contains less differentiation (i.e., roughly the same items making up three components opposed to the four components that the CII scale contains) than the scale for current identity development. It could be that the factor structure in the current study for HSII partially measures the difficulty in remembering the nuance in one's fears. For example, Brennan, Stewart, Jamhour, Businelle, and Gouvier (2007) found recall of subclinical anxiety to be less accurate than recall of clinically significant levels of anxiety in a forensic study specifically examining retrospective recall of psychological distress. Therefore, although participants may have been able to recall the generalities of their identity integration during high school, the specifics might have been more difficult.

Alternately, the difference in the two scales could be due to developmental stages. According to Erikson (1968), a main task during adolescence is role development, or identity. At this time, adolescents have a strong desire to fit in and understand where they belong in society.

In contrast, during adulthood, a main task is intimacy. Specifically, individuals begin sharing themselves more intimately with others. Through an Eriksonian lens, the differing factor structures of the identity integration scales in the current study could indicate that individual pride during high school is more dependent on the perceived judgment of others than it is during emerging adulthood. Therefore, it makes sense that these disclosure fears might be incorporated in the same scale as Individual Pride in HSII. By the same token, it also makes sense that if one is in a stage of life in which intimacy is the salient task, that Disclosure Fears would be a distinct component from Individual Pride.

Finally, it is possible that the difference in factor structures between the two scales is a function of when disclosure occurred. If the age of first disclosure tended to occur after high school, disclosure fears would be more salient for CII in the current study. The mean age of disclosure for the current sample was 14.92 (SD = 5.602); however, the range was large (4-24), and the mode was 17. Furthermore, 51% of participants indicated that they were not out during high school, while only 34.6% indicated that they were out, making disclosure fears potentially more prominent for CII.

Although it is impossible to know why there is a different factor structure between the two identity integration scales, future research could help to explain this. Within a longitudinal study, if identity integration were measured prospectively during high school, and again during emerging adulthood, and the factor structure remained the same as in the current study (that is, Disclosure Fears fails to manifest as a clearly independent factor in high school), then the evidence would support a developmental stage hypothesis. If, however, a four-component factor structure appeared for both HSII and identity integration during emerging adulthood, then the evidence would support a retrospective recall hypothesis.

Research area one: psychological outcomes

Most research on identity development and its psychological correlates uses outness, or identity disclosure, to assess identity development (e.g., Pachankis, 2007). Modeled after theory developed by Rosario, Schrimshaw, and Hunter (2008), the current study combined outness, feelings about one's own minority identity, and feelings about the LGBT community as a whole to capture identity integration. In doing so, the current study created a more complete picture; identity disclosure is but one aspect of identity development. Measuring the internal processes of identity development (degree of pride in the self and pride in the community), as well as its external manifestation (outness), more accurately portrays the dynamic and multidimensional process of identity development. In turn, by examining the relationship between depression and the broadened construct of identity integration, we both supported and extended previous research.

Consistent with previous research (Rosario, Schrimshaw, & Hunter, 2008), the more integrated participants were in their minority identity by their senior year of high school, the less likely they were to report current depressive symptoms, and vice versa. As the acceptable age range for participation in this study was 18-24, current depression could be as much as six years post high school. This finding suggests long-term psychological implications for low identity integration. According to Pachankis (2007), concealment of potentially stigmatizing identity characteristics has its costs. In particular, although identity concealment is associated with protection from discrimination (D'Augelli, Hershberger, & Pilkington, 1998), especially for male-identifying sexual minority individuals (Pachankis, Cochran, & Mays, 2015), it is also associated with guilt, shame, disrupted relationships, depression, and anxiety (Pachankis, 2007). Rosario, Schrimshaw, and Hunter (2010) speculated that disclosing one's identity opens the door

to contact with similar others and the possibility of integrating several seemingly disparate identities into one cohesive whole, both of which contribute to higher psychological adjustment. In fact, the researchers found that even when individuals decrease their integration (as identity development is often a non-linear process), having been high in integration at one point may provide immunity from poor psychological adjustment later on. The researchers suggested that this indicates there is a psychological cost not only to being low in identity integration, but more specifically to stagnating at consistently low levels of integration. Therefore, working on one's identity integration may be protective, regardless of whether or not the integration consistently increases.

The fact that depression and identity integration were significantly negatively correlated is unsurprising; however, given that identity integration and depression are in many ways mirrors of each other, it is surprising that the magnitude of this correlation was not larger. Identity integration is defined by characteristics that are generally antithetical to depression, such as positive feelings about the self, an absence of shame (shame being a correlate of isolation), a sense of belongingness in one's community, and a willingness to share with others important aspects of one's own identity.

One explanation for the small correlation in this relationship (r = -.154) can be found in a study by Pachankis, Cochran, and Mays (2015). Using a population-based sample that included both closeted and openly identifying sexual minority individuals, the researchers found gender differences in their results. Specifically, closeted men were offered protection from depression and anxiety, while identity disclosure offered protection for the women. The researchers posited that this gender effect may be due to the differing ways gender performance is treated. In particular, men are punished more quickly and severely for perceived betrayal of gender roles.

Whereas sexuality is distinct from gender, the two are often conflated, and gay men are frequently seen as a threat to traditional gender roles (Herek, 2000). Pachankis, Cochran, and Mays (2015) also explained their results by suggesting that perhaps the ability to disclose intimate parts of their identities to important others gives women more protection than it does to men, because women, in general, value openness more. If this gender difference is not unique to the study by Pachankis, Cochran, and Mays (2015), then perhaps a small correlation in an analysis that combines all genders is a function of males and females essentially cancelling each other out. Future research could, therefore, inquire into whether gender moderates the relationship between integration and depression.

Another reason for the small correlation might lie in inconsistency of the mood states over a long developmental period. Given the changes in integration (which has an impact on mood), as well as myriad other changes (e.g., the average length of depressive episodes, life events affecting people both negatively and positively, general maturation, etc.), a small correlation over this time period is expected. Had the study measured retrospective depression and HSII, perhaps the relationship would have been stronger. In fact, when CII was correlated with current depression, the correlation was r = -.257, p < 001, as opposed to the correlation between the more temporally inconsistent HSII and current depression (r = -.154, p = .015). Further, one other known study looked at the relationship between HSII and current depression. Russell, Toomey, Ryan, and Diaz (2014) sampled young adults, ages 21-25. Participants were asked whether they were out to others in high school, and their current depression was measured. Although they found a significant inverse relationship between one aspect of identity integration (outness) during adolescence and current depression (z = -.286, p < .01), this analysis was

actually not significant until at-school LGBT-related victimization was added to the model, a construct that was not measured in the current study.

Unlike the significant finding (though small effect) evidenced between HSII and depression, the relationship between HSII and current anxiety only approached significance. If identity integration mirrors depression, the same is true for anxiety, as the two are so highly related (Mineka, Watson, & Clark, 1998). With that in mind, it is noteworthy that this relationship was not significant. It stands in contrast to the study by Rosario, Schrimshaw, and Hunter (2010), who found that students who were more integrated in their minority identity tended to have less anxiety. Although the researchers used the same method for measuring identity development as was used in the current study, they sampled adolescents, and therefore were able to assess current anxiety as it related to participants' current identity development. Were the current study to have measured both constructs at one point in time, as the previous study did, it is possible that anxiety would have been a strong and significant correlate of identity integration. In fact, when an additional analysis was run to determine the relationship between current identity integration (CII) and current anxiety, the correlation was significant (r = -.224, p < .01). As with the relatively weak relationship between past integration and current dysphoric symptoms, the same is seen between past integration and current anxiety, only to the point of non-significance.

Considering the developmental trajectory of internalizing disorders, having a significant correlation between identity integration in high school and current depression, but not current anxiety, is perhaps somewhat expected. Specifically, anxiety disorders tend to start earlier than depressive disorders and childhood anxiety disorders can lead to depressive disorders in adolescence and adulthood (Kessler, Berglund, Demler, Jin, & Walters, 2005; Mineka, Watson,

& Clark, 1998). Therefore, the fact that our young adult sample was significant for depression and not anxiety might indicate that their current depression was preceded by anxiety earlier on that was -- at that time -- predicted by integration status. This would be a target for future research.

Overall, the current study supports the idea that identity integration is inversely related to negative psychological outcomes, measured as depression and anxiety. Although the correlations were not strong, and the relationship with anxiety only approached significance, the results still indicate partial support of previous findings (e.g., Rosario, Schrimshaw, & Hunter, 2010), as well as to warrant further research in this area. In a population-based study investigating the mental health consequences of the closet for sexual minority adults, Pachankis, Cochran, and Mays (2015) found that identity nondisclosure is associated with increased depression for women, and decreased anxiety and depression for men. Whereas the current study includes gender diverse individuals and looks retrospectively at identity development during the senior year of high school, it is possible that there are gender differences that affect these analyses that were not captured here and should be the focus of future study.

Research area two: academic outcomes

Consistent with, and extending, previous research, a sense of school belongingness was significantly correlated with HSII; participants who rated themselves high on identity integration during their senior year of high school were more likely to endorse a higher sense of school belongingness. This suggests that a sense of security in one's identity is related not only to the ability to experience connection with similar others, but also to feeling safe with, and accepted and included by, others in one's broader community. Alternately (or perhaps at the same time), it could suggest that a sense of belonging to one's school community facilitates integration into

one's minority identity. Due to the fact that adolescents spend so much of their lives at school, feeling accepted and a part of the school community is essential to overall well-being. In fact, most teens get the majority of their social interaction at school and often experience their first disclosure at school; therefore, identity development largely takes place at school. Miceli (2005) described isolation to be a particular issue during the identity development process. Viewing school belongingness on the opposite side of the spectrum from isolation supports the relationship between school belongingness and identity integration during high school.

The finding that HSII was not significantly correlated with absenteeism may well explain why that finding was not found in the extant literature. Although it makes intuitive sense that someone who is struggling with a stigmatized identity might avoid school, particularly if the climate is hostile, that was not supported by the current research.

Other questions, not covered in the current study, but that may better examine the relationships between identity integration and absences are: (a) how do SGM youth compare to heterosexual and cisgender peers in terms of absences, and (b) how do absences for SGM youth relate to the different stages of identity development? Regarding the latter, it would be interesting to find out if SGM students are more absent during identity formation, or identity integration. If SGM students are more likely to be absent during identity formation, it could indicate that the uncertainty implied in questioning directs energy away from meeting obligations. It is likely that the evaluation of this relationship could include more variables and, thus, more complexity. For example, Kosciw, Palmer, Kull, & Greytak (2013) suggested that SGM students are absent less often if they have a greater sense of school belonging. Additionally, they showed at-school victimization to be an important predictor of absenteeism.

Future research on the relationship between HSII and absenteeism could include school belongingness and at-school victimization as mediators.

The retrospective nature of this study might also have influenced the results for this area of inquiry. Retrospective reporting bias is an inherent danger for any measure that utilizes recall (Calzo, Antonucci, Mays, & Cochran, 2011). This particular measure asked for an average monthly estimate of absenteeism during participants' senior year. As mentioned before, participants were completing this study as much as six years after their senior year, making an accurate estimate potentially problematic. A prospective study would likely result in more accurate estimates.

It should be recognized that the sample used for the current study was a particularly highachieving group. The majority of participants were recruited from their college or university GSAs. This indicated that the participants not only attend college, but are involved enough to belong to an extra-curricular group. Additionally, the mean GPA for the current sample was 3.52, suggesting above average achievement. It is likely, then, that this particular sample was largely made up of individuals who were unlikely to skip school, regardless of their identity integration.

Finally, it may be the case that people who are struggling with their identities overcompensate in other ways, as suggested by The Best Little Boy in the World hypothesis. Originally proposed by Tobias in 1976, The Best Little Boy in the World hypothesis suggests that for sexual minority men, identity concealment early on contributes to an increased reliance on obtaining self-worth from high achievement in other domains, such as school. Pachankis and Hatzenbuehler (2013) recently sampled 195 sexual minority and heterosexual men to examine this hypothesis, and found that sexual minority men were more likely to put more energy toward

achievement-related domains, of which academic success was one. Furthermore, concealing their sexual minority identity while living in environments more hostile to LGBT individuals increased participants' likelihood of measuring their self-worth from these domains. Clearly, this study is limited in scope, as it only sampled male-identifying individuals. However, it lends support to the possibility that SGM students struggling with their identities might have good attendance in an effort to compensate for their minority statuses.

Counter to expectations, there was no significant relationship between high school identity integration and GPA. However, GPA was significantly negatively correlated with HSII, suggesting that the more integrated participants are, the lower their GPA was. It is possible that this finding reflects overcompensation in one area of identity (e.g., "I'm a good student") when there are insecurities about another (e.g., "Am I gay?"), in line with the Best Little Boy in the World hypothesis (see Pachankis and Hatzenbuehler, 2013). However, due to the issues with measurement and sampling, these results should be interpreted with caution.

The data provide partial support for the relationships between identity integration during high school and academic outcomes. Specifically, HSII does seem to be directly related to a sense of school belonging. However, the relationship between HSII was not a significant predictor of absenteeism, and, contrary to expectations, there was an inverse relationship between HSII and GPA. Further research is warranted to determine whether these relationships would be supported with more complex analyses (e.g., adding at-school victimization to the models), whether the results might support the Best Little Boy in the World hypothesis, and if so, whether that hypothesis can apply to female-identifying and gender diverse individuals.

Research area three: school supports

In the model testing for moderation of school supports in the relationship between HSII and depression, the interaction was not significant. It is possible that the relationship between HSII and depression is simply the same regardless of the presence of peer acceptance, GSAs, and safe zones. If that is the case, the questions become, (a) would this relationship be better explained with school supports as a mediator instead of a moderator (i.e., does the relationship between HSII and depression work through the supports students have at school?), and (b) are there supports in school that quicken or ease the identity development process? In other words, do students who attend high schools with more school supports become integrated more quickly, and/or with fewer negative consequences for less-integrated states? Future research should address these questions, shedding further knowledge on how to best support SGM students.

School supports also failed to significantly moderate the relationship between HSII and anxiety. Notably, in this (nonsignificant) model with school supports present, HSII did significantly predict anxiety, unlike the bivariate correlation between HSII and anxiety. This finding lends support to the idea that identity integration may be an important predictor of anxiety, controlling for peer acceptance and presence of a GSA. Given the significant relationship between anxiety and CII, future research should look at this moderation without the temporal inconsistency contained in the current study.

It would seem that if an individual is nervous about coming out to peers or teachers, school supports might ease those fears. Quite possibly, had the model included at-school victimization as a mediator, the picture would have been more complete as to make the relationships significant. However, the fact that the current study measured retrospective identity integration but current anxiety may be responsible for the nonsignificant results pertaining to

anxiety; perhaps regardless of whether or not someone was provided with school supports, they are unlikely to continue to be anxious about coming out as many as six years after the fact.

In the model examining whether school supports moderated the relationship between HSII and school belongingness, the result was not significant. However, the school supports variable (which, in this model was comprised of peer acceptance, presence or absence of GSAs, safe zones, and antidiscrimination policies) approached significance ($\beta = .128, p = .085$). Participants were more likely to feel a sense of belongingness to their schools the more school supports they had, controlling for identity integration. Additionally, when the data were split by gender (i.e., male, female, and gender diverse), the moderation model was significant for femaleidentified participants; school supports significantly moderated the relationship between identity integration and school belonging. In other words, the strength and direction of the relationship between identity integration and school belongingness differed as a function of school supports. Specifically, for low levels of school support, there was virtually no relationship between identity integration and school belonging, and the small relationship that did exist was negative; the more integrated a participant was in her identity, the less she felt she belonged at school. However, at moderate levels of support, the direction of the relationship changed. At high levels of support, the relationship was stark. For these women, low identity integrated participants endorsed extremely low levels of school belongingness; high identity integrated participants scored extremely high levels of school belongingness. These findings indicate that school supports facilitate a relationship between identity integration and school belongingness for SGM young women, and that increasing school supports strengthens that relationship. If there are no supports to indicate one is an important member of a given organization, the less likely a person

is to feel like they belong in that organization. For women, who tend to place more value in social relationships (Martell, Safren, & Prince, 2004), this may be particularly important.

Given previous findings suggesting that a sense of school belongingness is an important predictor of mental health (Fischer, 2011; Heck, Lindquist, Cochran, & Machek, 2014) and academic achievement (Fischer, 2011) for SGM youth, and that identity integration is related to greater mental health (Rosario, Schrimshaw, & Hunter, 2010) and improved relationship quality (Beals, Peplau, & Gable, 2009), these findings underscore the importance of high levels of school supports and the dangers of a hostile school climate. Although it is likely that this phenomenon is not unique to SGM students, Meyer (2003) suggested in his minority stress hypothesis that hostile environments contribute to the negative outcomes experienced by SGM individuals. Furthermore, hostile environments are not something that members of the dominant society encounter regularly, as sociopolitical structures are built with them in mind. Therefore, school supports that improve the climate for SGM students are inimitably important.

In the final model, school supports significantly moderated the relationship between HSII and absenteeism ($\beta = -.367$, p < .05). An examination of the simple slopes of this significant moderation reveals that for students with low levels of school supports, the more integrated they were, the more likely they were to be absent. For these low-supported students, it seems that growing into their identities meant skipping school, likely for reasons of perceived safety. Students with moderate and high levels of school supports, however, did not skip school more as their identity integration increased. In fact, the direction of the relationship changed; the more integrated they were in their identity(ies), the less likely they were to be absent. In other words, to maximize attendance for SGM students, schools need to ensure the presence of adequate supports. This accomplishes two things: it negates the need for students to "choose" between

their integration and attendance, and it makes attendance more likely the more integrated students become. Given the fact that the only significant school support predictor of absenteeism was supportive staff, this means that supportive school personnel have a great opportunity for improving the lives of their SGM students. This finding indicates that being supportive of sexual and gender minority students is more than an ethical ideal or professional standard; it is a research-based indicator of whether or not SGM students will attend school. Since students with less absenteeism have better grades, a greater sense of school belongingness, and higher selfesteem (Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2012; Kosciw, Palmer, Kull & Greytak, 2013), having supportive staff in a school has many important implications. Unfortunately, the majority of school personnel feel undertrained in this area, and therefore insecure about what it means to be supportive (Goodenow, Szalacha, & Westheimer, 2006). This finding highlights the importance of adequate professional development for school personnel to support their SGM students.

This finding also leads one to wonder where the absent but integrated students from lowsupport-schools are going during school hours. SGM youth are more likely to be homeless than their heterosexual and cisgender peers (Corliss, Goodenow, Nichols, & Austin, 2011), and to abuse drugs at higher rates when homeless (Cochran, Stewart, Ginzler, & Cauce, 2002). In that context, the potential protection schools have to offer becomes more salient, and the potential consequences of absenteeism are more serious. In other words, if an adolescent is not accepted at home or supported at school, do they then resort to homelessness? Do they cope with these hardships by abusing drugs? More importantly to this study, could supportive staff, or positive school climates in general, change that dangerous trajectory? There is some evidence to suggest that this is the case. For example, researchers have found SGM youth who attend a school with a

GSA are less likely to be absent due to safety concerns (Walls, Kane, & Wisneski, 2010) and less likely to engage in problematic alcohol use or experience alcohol dependence (Heck, Flentje, & Cochran, 2011) than students who attend schools without a GSA.

Overall, the current study supports the idea that the closet is a dangerous place. Specifically, when individuals are less integrated in their sexual and/or gender identities in high school, they are more likely to be depressed as much as six years after high school. They are also less likely to feel as though they belong in their high schools, a finding that has mental health and academic implications. Additionally, they may have increased risk of experiencing anxiety. Other broad themes of the study include the importance of school supports for the academic and emotional health for SGM students, and that they seem to create an environment in which identity integration and positive outcomes are more strongly related. Finally, the school supports found to be the most effective directly addressed perceptions of safety and acceptance at school. Indeed, when one has fears about one's own identity, and how that fits with their world, what more powerful salve is there than acceptance?

Implications

Results of the current study have many important implications. Specifically, there are implications for mental health professionals treating sexual minority and gender diverse individuals, school psychologists, school personnel, and administrators. Furthermore, results show implications for public policy.

Mental health professionals working with SGM youth

Although it is not new to the literature, the significant relationship between identity integration and depression highlights the importance of assessing for identity issues when working with adolescents. Considering the relational nature of the majority of significant

indicators of school climate, mental health professionals should also inquire about and encourage areas in their adolescent clients' lives that foster healthy relationships. Being aware of the supports available at local schools may empower SGM adolescents to access those services, potentially increasing their sense of school belonging. Finally, mental health providers who serve SGM clients in clinical settings should be aware of the power of inclusiveness and respect in their practices. For example, preferred pronouns and names should be inquired after and used, sexuality should never be assumed, and sexual and gender fluidity should be respected and normalized. SGM clients exist in a world in which coming out is a continual process and heterosexuality and cisgender identity is assumed until proven otherwise. In the context of the minority stress hypothesis (Meyer, 2003), this necessarily means that these clients are forced to continually anticipate discriminatory experiences. Having the therapy room be a consistent place of acceptance prior to disclosure is a potentially healing experience.

School psychologists and other school personnel

Through their professional ethical guidelines as stated by the National Association of School Psychologists (NASP), results of the current study have strong implications for school psychologists.

NASP believes that school psychologists are ethically obligated to ensure that all students have an equal opportunity for the development and expression of their personal identity in a school climate that is safe, accepting, and respectful of all persons and free from discrimination, harassment, violence, and abuse. To achieve this goal, education and advocacy must be used to reduce discrimination and harassment against LGBTQ youth by students and staff and promote positive social–emotional and educational development. (National Association of School Psychologists Position Statement, 2011).

As the current study shows that high levels of supports seemed to create an environment in which students felt they belonged more in their schools, and were more likely to attend, the more integrated they became in their identities, NASP's position statement becomes a directive to school psychologists. Here, NASP clearly states that SGM students should not only be allowed positive school climates and have the freedom to explore their identities, but that school psychologists are responsible for maximizing the possibility that this happens. The call to school psychologists is to become leaders in ensuring that schools adopt systems and practices such as those used in the current study: GSAs; designated safe zones throughout the school; comprehensive, enumerated, and well-disseminated antidiscrimination policies; and the identification of school personnel who are supportive and accepting of SGM students. Additionally, as peer acceptance was a common component in three of the four school support variables, school psychologists should work to find ways to increase peer acceptance. One research-supported route to increased peer acceptance in schools is the presence of an active GSA (Walls, Kane, & Wisneski, 2010; Heck, Lindquist, Stewart, Brennan, & Cochran, 2013). As GSAs need a faculty advisor, and often a great deal of support to manage obstacles provided by administration and the larger community, school psychologists are well-suited to tend to those roles.

Guided by the position statement, much of this will need to happen through education and advocacy. As Goodenow, Szalacha, and Westheimer (2006) suggested, school staff consistently report feeling under-informed as to the needs of their SGM students. Evidence of this is found in the results of 2013 NSCS, which show that even when school personnel witness at-school victimization or harassment of SGM students, they often fail to discipline the perpetrator (Kosciw, Palmer, Kull, & Greytak, 2013). As Greytak and Kosciw suggested (2014), this is not

due to apathy on the part of educators. Rather, educators are under-informed about, and illprepared to handle, anti-gay bias, discrimination, and at-school victimization. However, when educators are trained in a manner that increases their self-efficacy in handling these situations, they are more likely to respond appropriately. The most effective trainings include giving educators the opportunity to role-play different scenarios, and providing education on the prevalence and importance of recognizing anti-gay bias, bullying, and victimization (Greytak & Kosciw, 2014). Moreover, brief trainings are sufficient to obtain adequate results (Greytak, Kosciw, & Boesen, 2013). School psychologists, with their unique understanding of systemic effects on individual mental and academic health, are perfectly situated to provide the necessary training.

School administrators

Clearly, school psychologists can effect only so much change without the backing of their school administrators. Particularly as it pertains to professional development and antidiscrimination policies, the current study has implications for the action and support of school administrators and other school personnel. Administrators have great opportunity in establishing new GSAs (Murphy, 2012); establishing and enforcing comprehensive antidiscrimination policies; allowing safe zones; instituting curricula that are inclusive of LGBT experiences; and providing adequate professional development opportunities so that their staff knows how to handle at-school victimization and general LGBT-related cultural competence (Kosciw, Palmer, Kull, & Greytak, 2013). Additionally, administrators have the power to enforce policies equitably, checking the hetero-and-cisnormative culture at their schools. In the 2013 NSCS, researchers found that almost two-thirds of respondents witnessed LGBT-related discriminatory policies in their schools. For example, 28.2% of student respondents endorsed

inconsistent discipline practices; public displays of affection involving same-sex couples were punished, often in the presence of opposite-sex couples engaging in equal or greater displays of affection. Approximately 18% reported that they had been prohibited from attending a dance with someone of the same gender. A little over 9% endorsed receiving discipline for openly identifying with an SGM status. Forty two percent of transgender students reported that they had been prohibited from using pronouns appropriate for their identified gender (Kosciw, Palmer, Kull, & Greytak, 2013). Taken together, school administrators have great power to affect change for the school climate of SGM youth.

Inclusive curricula

Although inclusive curricula were not found to significantly predict the outcomes of interest in the current study, this does not imply that inclusive curricula should not be implemented. The current sample only included 18 participants who rated their curricula as inclusive of LGBT experiences, likely explaining this lack of significant results. Previous research has indicated inclusive curricula to be associated with positive school climates (Kosciw, Palmer, Kull, & Greytak, 2013). Therefore, inclusive curricula should be adopted more frequently, rather than less.

Public policy

Finally, the current study provides implications for public policy. Just as teachers and school psychologists are dependent upon the support of their administrators for much of the change they can enact, administrators are, to some degree, dependent on the larger sociopolitical structures. For example, Fetner and Kush (2008) found GSAs to be more likely in areas that are politically progressive, affluent, and urban or suburban. Similarly, the 2013 NSCS found LGBT-related school supports least likely in small towns and rural areas. The results of the current

study have implications for policy makers at the city, state, and federal level. Specifically, public policy that supports comprehensive and enumerated antidiscrimination policies, ample opportunities for professional development in areas of LGBT-related cultural competence, and the proliferation of highly-visible and active GSAs should be enacted without reservation.

One such policy, the Safe Schools Improvement act (SSIA; S.311) was introduced into the U.S. Senate on January 29, 2015, and reintroduced into the House of Representatives on June 25, 2015. Currently referred to the Committee on Health, Education, Labor, and Pensions (Congress.gov, 2016), the SSIA attempts to accomplish the following:

Amends the Elementary and Secondary Education Act of 1965 to require states to direct their local educational agencies (LEAs) to establish policies that prevent and prohibit conduct, including bullying and harassment, that is sufficiently severe, persistent, or pervasive to: (1) limit students' ability to participate in, or benefit from, school programs; or (2) create a hostile or abusive educational environment that adversely affects their education (Congress.gov, 2016).

In the context of the current study, the SSIA is a necessary and researched-based first step toward creating positive school climates for SGM youth. Specifically, it provides direction on how and when to disseminate antidiscrimination policies. As illustrated earlier in the study, this has implications for school belongingness, which has been shown to be associated with increased psychological and academic outcomes for SGM youth (Fischer, 2011).

As the results of the current study indicate, protecting SGM students from discrimination and victimization is necessary but insufficient when considering the overall well-being of these students. To further protect SGM students, the Student Non-Discrimination Act (SNDA; S.439) was introduced into the 114th Congress. This act would goes a step further than attempting to

prevent discrimination based on actual or perceived sexual orientation and gender identity or expression, and states that SGM students at public schools should have equal access to school activities (Congress,gov, 2016). Under the SNDA, school administrators could no longer legally forbid students from establishing GSAs. The results of the current study show that the SNDA could contribute to less depression, more school belongingness, and perhaps less anxiety in SGM students. Taken together, these two important acts could be monumental in improving the lives of SGM students.

Future Directions

Evolving labels and definitions

In a perfect world, the closet, along with this entire area of research, would shortly be an embarrassing relic of the past. Already, some researchers have suggested that young people are "coming out" at increasingly younger ages (Calzo, Antonucci, Mays, & Cochran, 2011). Additionally, they are less willing to use labels to describe their sexuality or gender. It is possible, then, that the very nature of the identity development process might change, given the ambiguity of identities currently espoused (e.g., gender fluid or queer). Alternately, the identities themselves may matter less than the fact that they continue to be the minority in a heteronormative and cisnormative society.

Study design

However, given the constraints created by the hegemonic society at present (i.e., minority stress), this important area of research can be strengthened and deepened in a number of ways. As has been discussed numerous times throughout the discussion of this study, future studies should endeavor to measure identity integration and psychological distress concurrently with adolescence. Eliminating the potential risk of recall error, prospective studies could shed light on

several issues, such as psychosocial dangers of different stages or milestones of minority identity development, and how stages of development in general interact with minority identity development. Furthermore, prospective studies would allow for the inclusion of middle schoolers. Due to the limited scope of the current study, middle school experiences were not examined. However, as middle school coincides with the beginning of adolescence, it is a relevant period of time, and is sorely under-studied at the current time.

To do this sufficiently, future studies should also be longitudinal. The cross-sectional nature of the current study, as well as the majority of the research in the extant literature (e.g., Kosciw, Palmer, Kull, & Greytak, 2013) can only capture relationships within one snapshot of time. Although expensive, longitudinal research allows researchers to adequately speculate hypotheses of causality. For this area of research in particular, longitudinal research has the potential to demonstrate that certain school supports create an environment that facilitate healthy identity development, and lead to improved psychological and educational outcomes. In particular, if a future study could measure the identity integration and educational and psychological correlates of youth prior to supports being implemented, and then again at least two times after, school supports could be a proven path to resilience. The public policy implications of such research could be powerful tools in the lives of SGM youth.

Race and ethnicity

Intersections between race and SGM statuses have not been thoroughly explored. Although often measured, as in the current study, the discussions about queer people of color have historically been a cursory description of the relatively low percentage of ethnic minorities within a given sample, with few exceptions. Adams and Phillips (2009) found that two-spirit, gay, and lesbian Native Americans do not experience some of the stages of Cass's proposed

identity development model. Specifically, the stages related to alienation from important others were not salient for these individuals. Given the relationship between isolation and depression, further research might find that Native American SGM individuals might not experience the same elevated rates of depression as do their White counterparts.

Other researchers (Kosciw, Greytak, Palmer, & Boesen, 2014; Rosario, Schrimshaw, & Hunter, 2004) have shown SGM individuals of color to experience similar rates of psychological distress as their White peers, but delayed identity integration. Overall, future research needs to take a more nuanced view of the intersections of race, sexuality, and gender within a school setting, examining which supports are more likely to be beneficial for whom. This could be accomplished by replicating the current study with a larger sample, and examine ethnicity as a moderator.

Rural SGM youth and hate crimes

Another under-researched area is how the larger sociopolitical structures impact school supports. Researchers have found that GSAs, antidiscrimination policies, and inclusive curricula were more likely to exist at schools in urban or suburban settings, in affluent school districts, and in liberal-leaning municipalities (Fetner & Kush, 1998; Kosciw, Greytak, Palmer, & Boesen, 2014). Given the current study's finding that school climate variables influence the relationship between identity integration and positive outcomes, that SGM youth in rural, conservative areas are particularly negatively impacted; less contact with and exposure to similar others in general, and fewer messages of acceptance within their schools. Compounding this finding, it is possible that hate crimes are more likely to occur in rural areas, although those data are obscured by the underreporting of hate crimes to police departments, as well as by the need for crimes to be correctly classified by police departments as hate crimes. As there are large training differences

for police officers across the United States, current data suggesting that hate crimes are more likely to occur in "gay-friendly" areas may be a misrepresentation of the reality (Duncan & Hatzenbuehler, 2014; FBI, 2014). Following the finding that victimization is more likely to occur in rural areas (Kosciw, Palmer, & Kull, 2015), it is plausible to consider rurality to also be a risk factor for hate crimes. Therefore, the identity integration of rural SGM youth may be impacted due to safety, or even perceived safety, reasons. Future research should examine the psychological and academic outcomes that rural SGM students experience relative to their urban and suburban counterparts. Furthermore, the research should address how identity integration, as well as psychological and academic outcomes change over time once local, state, and/or federal regulations have been put in place. Finally, the research should investigate how the prevalence of hate crimes in a given area affects all of the aforementioned variables, and whether that changes with the implementation of laws and policies.

Limitations

Victimization

Results and implications of the current study should be considered in the context of some important limitations. In an attempt at parsimony, victimization and discrimination were not included in any analyses of the current study. Examining minority stress via school climate and its correlates independent of at-school victimization and discrimination is artificial, however. Because victimization and discrimination are implied in any thorough discussion of hostile school climates, they should be explicitly measured. Particularly in the context of the minority stress hypothesis (Meyer, 2003), which states that SGM individuals experience a higher level of stress in large part due to the discrimination and prejudice events that they anticipate, victimization is naturally a part of the larger picture. As has been shown in the results of previous

research (Birkett, Espelage, & Koenig, 2009; Kosciw, Palmer, & Kull, 2015), with victimization and/or discrimination in the model, additional significant relationships would likely be found. Moreover, adding victimization to the model provides more nuance to our understanding. That is, whereas researchers are consistently showing that identity integration, or outness, is related to psychological well-being in the long term, it is also related to greater victimization, and therefore decreased psychological well-being in the short term (Pachankis, 2007). This is important information for educators, who are interacting with SGM youth in both the short and long term.

Hate crimes.

Furthermore, if victimization is included in the discussion of minority stress, hate crimes should be as well. According to the Federal Bureau of Investigation (FBI), hate crimes disproportionately occur due to the victims' sexual orientation and/or gender identities. The result (and indeed, intent) of these hate crimes is that many SGM and questioning individuals live in perpetual terror of being the next victim. Consistent with the minority stress hypothesis (2003), it is this terror that increases the amount of stress that SGM individuals experiences, along with its associated psychological distress, and often keeps them in the closet. In fact, Duncan and Hatzenbuehler (2014) found that SGM adolescents who lived in neighborhoods with higher occurrences of LGBT-related hate crimes were significantly more likely to attempt suicide. That hate crimes, victimization, and discrimination were not examined in the current study limits its comprehensiveness.

Study design

Cross-sectional research is a powerful and relatively inexpensive tool for determining which research is worth the investment of more comprehensive, longitudinal studies. However, the cross-sectional nature of the current study limits its generalizability as it pertains to other

times. Although the current study can speak to significant and important relationships between supports, identity development, and psychological and academic well-being, a stronger method of research would be to investigate how identity development and psychological and academic outcomes change over time as a function of school supports. Additionally, as variables were measured via correlation, causality cannot be assumed.

As has already been mentioned, the retrospective nature of the current study may have limited the reliability of its results. Although some researchers argue that the amount of recall error for psychosexual stages is small, due to the momentousness of these milestones (Schrimshaw, Rosario, Meyer-Bahlburg, & Scharf-Matlick, 2006), this method of measurement, although efficient, risks being less robust. Moreover, not all variables measured retrospectively were as noteworthy as, for example, the age of their first identity disclosure. For example, participants were asked to estimate how many times they were absent in a given month during their senior year of high school. Items such as this, which are less rehearsed , as well as irrelevant to participants' sense of identity, are more likely to be recalled with some error, often skewing toward over-reporting (Hegarty, 2009). Furthermore, many of these variables were single-item measures, threatening their reliability, and consequently, their validity.

Measurement issues

GPA.

The reporting of GPA within the current study is another potential limitation. First, participants were allowed to free-text their responses for this variable. This meant that a number of participants chose to use this space to editorialize about the study as a whole, making their responses unusable. Additionally, although participants were also asked to indicate the scale on which their GPAs were measured (e.g, 4.0, 5.0, etc.), they, again, answered in a free-text box.

The result of this was many more unusable responses, such as scales that were lower than their GPAs, scales that were unlikely (e.g., "20,") or simply statements that they did not know. Therefore, all GPAs 4.0 or higher were counted as 4.0, resulting in a scale with little variability. This compounded an already relatively high-achieving sample; 69.8% of participants were attending a college or university at the time of the study, indicating that their GPAs were high enough for college admittance.

Identity integration.

In constructing the current study, we gave a great deal of consideration to how to best capture identity integration. Due to the theoretical underpinnings of the study based on the work by Rosario, Schrimshaw, and Hunter (2008), the same measures (NHAI and OI) used by those researchers were used in the current study, modified to be inclusive of gender diverse individuals. However, the current study diverged in an important, and potentially limiting, way. Rosario and colleagues used a cluster analytic approach, ideal for their specific research questions. Cluster analysis would not have sufficiently demonstrated the relationships and interactions (or lack thereof) of identity integration, school supports, and the outcomes in question. Therefore, the scales were combined, in order to create a single, continuous variable of Identity Integration, more conducive to regression. The unfortunate result is that our Identity Integration variable risks treating identity development as though it were a linear process. Of course, this is the very assumption that Rosario and colleagues were arguing against in the creation of their study and resulting theory; identity development is a dynamic and nonlinear process. It is therefore important to conceptualize our Identity Integration variable in the same light. Although being further integrated on the scale is associated with better mental health and academic outcomes, and may be facilitated by increased school supports, one's place on the scale

is by no means static, and may not occur sequentially; people may "jump around" at different periods of their lives, dependent on their current circumstances and environment.

Gender diversity.

Perhaps the most egregious limitation of the current study is the measurement of gender diversity. The study of SGM individuals is a rapidly changing and evolving area of research. As our understanding changes, so do the words we use. In doing so, measurement, description, and the research itself becomes more precise. In the current study, gender diverse individuals were given the following options for identification: transgender male-to-female; transgender femaleto-male, and other. The categories were then collapsed into "gender diverse" in order to increase power. Those who indicated "other" were given the chance to free-text their preferred gender identity. This method is problematic in a few important ways. First, the use of "other" for a gender category magnifies cisgender supremacy by creating a subcategory within the most marginalized of the LGBT populations. Furthermore, the subcategory name, while intended to give voice to those who do not identify as transgender, effectively connoted a lack of belonging. A simple solution exists, however. Participants in future research should be asked if the gender they were assigned at birth matches the gender with which they currently identify (Reisner, et al., 2015). Given the context of the minority stress model, this level of specificity would be sufficient to indicate minority status of a gender category.

Correlation strength

The correlations reported in the significant analyses herein are relatively small (e.g., r = -.154 for the relationship between identity integration and depression). Given the nature of the research, with the complexity inherent in studying human experiences, smaller effect sizes are

expected, as has been found in past research (e.g., Williams, et al, 2005). Nonetheless, the potential meaning of these results should be interpreted with this in mind.

In spite of these limitations, the current study has supported and enhanced the research base in important ways. Identity integration emerged as an important predictor of mental health and students' sense of belonging at school. School supports centered on strengthening relationships emerged as significant routes to resilience for SGM youth. Supportive school staff were shown to be paramount in avoiding truancy for SGM youth, particularly when they are more integrated in their identities. Finally, it is hoped that through the lessons learned by the current study, a roadmap for future research was created, in order to more precisely and effectively create supportive and accepting school communities for the nation's SGM youth.

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Appendix A

 Table A.1
 Sample Characteristics

Characteristic	Frequency	Percent of Sample
Gender		
Male	95	26.1
Female	185	50.8
Gender Diverse	84	23.1
Age		
18	79	22.3
19	52	14.7
20	48	13.6
21	55	15.5
22	32	8.5
23	29	16.7
24	59	
Ethnicity		
African American/Black	15	3.4
Native American	14	3.2
Latino(a)	15	3.4
Asian American	4	.9
European American/White	249	55.9
Other	10	2.3
Population of high school city/town		
Less than 2500	44	12.8
2,500-4,999	37	10.7
5,000-9,999	37	10.7
10,000-49,999	79	22.9
50,000-250,000	89	25.8
Over 250,000	59	17.1
Educational/Occupational Status		
Attending College/University	206	69.8
Attending Comm. College/Voc Tech	23	7.8
Employed FT; Not in school	29	9.8
Employed PT; Not in school	15	5.1
Unemployed	22	7.5

SCHOOL SUPPORTS

Table A.2

State in which participants attended high school

1.0 .3 .3
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۷.1

Wyoming	2	0.7
Washington D.C.	1	0.3

Region in which participants attended high school

State	Frequency	Percent	
Northeast	56	20.2	
Midwest	41	14.8	
South	89	32.1	
West	85	30.7	

Table A.4

Ranges, Means, and Standard Deviations of Variables

Measure	Range	Mean	Standard Deviation
Dependent			
Depression	7-28	12.89	5.254
Anxiety	7-28	11.78	4.153
School Belonging	2-25	16.77	4.616
GPA	1.7-4.0	3.527	.4758
Absenteeism	0-20	1.95	2.912
Predictors			
HSII	34-154	97.696	25.440
SS_Pred_Dep	-3.16-4.67	002	.234
SS_Pred_Anx	-2.64-2.71	002	.639
SS_Pred_SB	-4.15-6.6	012	.805
SS_Pred_Abs	47-5.9	.000	1.000

Note: SS_Pred_Dep = significant school supports predicting depression; SS_Pred_Anx = significant school supports predicting anxiety; SS_Pred_SB = significant school supports predicting school belongingness; SS_Pred_Abs = significant school supports predicting absenteeism.

Correlations

	HSII	Dep	Anx	SB	GPA	Abs
Pearson						
Correlation						
HSII	1.00	154*	118	.303**	159*	005
Dep	.154*	1.00	.746**	294**	076	.022
Anx	118	.746**	1.00	321**	.070	.076
SB	.303**	294**	321**	1.00	.177*	301**
GPA	159*	076	.070	.177*	1.00	253**
ABS	005	.022	.076	301**	253**	1.00
Sig. (two-tailed)						
HSII		.030	.095	.000	.028	.943
Dep	.030		.000	.000	.282	.756
Anx	.095	.000		.000	.319	.276
SB	.000	.000	.000		.011	.000
GPA	.028	.282	.319	.011		.000
ABS	.943	.756	.276	.000	.000	
Ν						
HSII	204	199	200	199	190	194
Dep	199	219	216	215	205	209
Anx	200	216	219	215	206	209
SB	199	215	215	218	207	212
GPA	190	205	206	207	208	203
ABS	194	209	209	212	203	213

*Note:*HSII = Identity integration in the senior year of high school; Dep = Total Depression; Anx = Total Anxiety; SB Total School Belonging; GPA = Grade Point Average during senior year of high school; Abs = Average number of absences during senior year of high school. : *p < .05. **p < .01. **p < .001.

Moderated Regression Predicting Depression

Predictor	Adjusted R^2	β
Model	.024	
HSII		214**
SS_Pred_Dep		.011
SSxHSII		.128

Note: *p < .10. **p < .05. ***p < .01.

Table A.7

Moderated Regression Predicting Anxiety

Predictor	Adjusted R^2	β
Model	.013	
HSII		157**
SS_Pred_Anx		135
SSxHSII		.244

Note: *p < .10. **p < .05. ***p < .01.

Table A.8

Moderated Regression Predicting School Belonging

Predictor	Adjusted R^2	β
Model	.102	·
HSII		.245***
SS_Pred_SB		.465*
SSxHSII		338
Note: $*p < .10$. $**p < .05$. $***p < .01$.		

Note: p < .10. p < .05.

Table A.9

Moderated Regression Predicting Absenteeism

Adjusted R^2	p
.044	
	076
	.413**
	367**
	.044

Note: *p < .10. **p < .05. ***p < .01.

Table A.10

Principal Components Analysis for High School Identity Integration

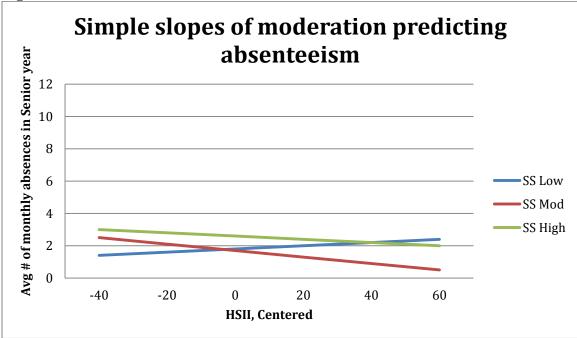
Component	Initial	% of Variance	Cumulative	
	Eigenvalues		%	
1	13.251	33.977	33.977	
2	3.567	9.147	43.124	
3	2.316	5.939	49.062	
4	1.391	3.567	52.629	
5	1.203	3.086	55.715	
6	1.163	2.981	58.696	

7	1.069	2.742	61.439
8	1.010	2.589	64.027

Principal Components Analysis for Current Identity Integration

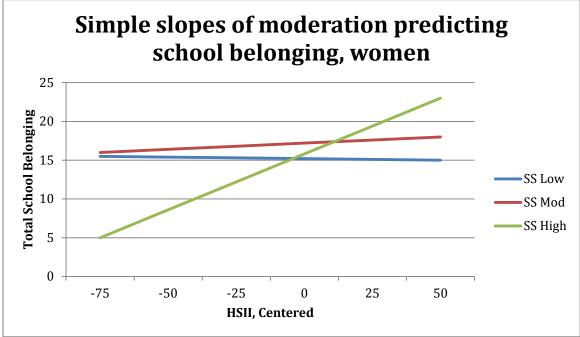
Component	Initial	% of Variance	Cumulative	
	Eigenvalues		%	
1	10.020	25.692	25.692	
2	3.490	8.948	34.640	
3	2.329	5.972	40.612	
4	1.657	4.248	44.860	
5	1.567	4.017	48.877	
6	1.249	3.202	52.079	
7	1.179	3.024	55.102	
8	1.138	2.919	58.021	
9	1.068	2.739	60.760	
10	1.001	2.567	63.327	





SCHOOL SUPPORTS





Appendix B

Demographics Form

1. Gender

- a. Male
- b. Female
- c. Transgender (Male to Female)
- d. Transgender (Female to Male)
- e. Other
- 2. Age _____
- 3. How would you best describe your ethnic or racial background?
 - a. African American/Black
 - b. American Indian/Native American
 - c. Hispanic/Chicano/Mexican American
 - d. Asian American
 - e. European American/White
 - f. Other
- 4. How many people live or lived in the town or city where you attend/attended or completed high school? If there is more than one city where you attended high school, please refer to the city in which you attended high school for the longest period of time.
 - a. Less than 2,500
 - b. 2,500-4,999
 - c. 5,000-9,999
 - d. 10,000-49,999
 - e. 50,000-250,000
 - f. Over 250,000
- 5. Sexual Orientation
 - a. Bisexual
 - b. Gay/Lesbian/Homosexual
 - c. Straight/Heterosexual
 - d. Unsure/Questioning
 - e. Other
- 6. Which of the following best describes the way you view your sexual orientation?
 - a. Exclusively heterosexual
 - b. Predominantly heterosexual, only incidentally homosexual
 - c. Predominantly heterosexual, but more than incidentally homosexual
 - d. Equally heterosexual and homosexual
 - e. Predominantly homosexual, but more than incidentally heterosexual
 - f. Predominantly homosexual, only incidentally heterosexual
 - g. Exclusively homosexual

SCHOOL SUPPORTS

- 7. At what age did you first question whether you might be gay/lesbian/bisexual/transgender? (Please enter 0 if this does not apply to you.)_____
- 8. At what age did you first notice a sexual attraction to someone of the same sex? (Please enter 0 if this does not apply to you.)_____
- 9. At what age did you first think of yourself as gay/lesbian/bisexual/transgender? (Please enter 0 if this does not apply to you.)_____
- 10. At what age did you first tell someone that you were gay/lesbian/bisexual/transgender? (Please enter 0 if you never told anyone.)_____
- 11. At what age did you first have a romantic relationship with someone of the same sex? (Please enter 0 if this does not apply to you.)_____
- 12. At what age did you first have a sexual relationship with someone of the same sex? (Please enter 0 if this does not apply to you.)_____
- 13. At what age did you first have consensual sex with a member of the opposite sex? (Please enter 0 if this does not apply to you.)_____
- 14. At what age did you first have consensual sex with a member of the same sex? (Please enter 0 if this does not apply to you.)
- 15. In the past year, have your sexual partners been:
 - a. Only male
 - b. Only female
 - c. Both male and female
 - d. This question does not apply to me
- 16. In your lifetime, have your sexual partners been:
 - a. Only male
 - b. Only female
 - c. Both male and female
 - d. This question does not apply to me
- 17. In the past year, have you found yourself attracted to:
 - a. Only males
 - b. Only females
 - c. Both males and females
 - d. I've not found myself attracted to either males or females

- 18. In your lifetime, have you found yourself attracted to:
 - a. Only males
 - b. Only females
 - c. Both males and females
 - d. I've not found myself attracted to either males or females
- 19. Did you consider yourself to be "out" to your high school?
 - a. Yes
 - b. No
 - c. Does not apply
- 20. If you were out in high school, in what year did you come out?
 - a. I came out before I entered high school
 - b. Freshman
 - c. Sophomore
 - d. Junior
 - e. Senior
 - f. Does not apply
 - 21. Who was the first person you told you were gay/lesbian/bisexual/transgender?
 - a. Straight friend
 - b. Gay/lesbian/bisexual/transgender friend
 - c. Sister/brother
 - d. Father
 - e. Mother
 - f. Therapist/counselor
 - g. Teacher
 - h. Other relative
 - i. Clergy/chaplain
 - j. Other
 - 22. Please think about the high school you attended for the longest period of time. What state were you living in while attending this high school?

23. What state do you currently reside in?

- 24. How many years of education have you completed (K-12 equals 12 years)? _____
- 25. What is your current educational and/or occupational status?
 - a. Attending a college or university
 - b. Attending a community college or vocational/technical institute
 - c. Employed full time, and not attending a post-secondary institution
 - d. Employed part-time, and not attending a post-secondary institution
 - e. Unemployed

- 26. How did you hear about this study?
 - a. Through my college/university gay-straight student alliance
 - b. Through my local community center for sexual minorities
 - c. Through a friend/colleague/classmate
 - d. Through a social networking web site (such as Facebook)
 - e. Other (please specify)

Appendix C

Adapted Nungesser Homosexuality Attitudes Inventory

For each of the 32 statements, use the key below to choose a number from 1 to 5 that represented your feelings during your senior year of high school:

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

1) During my senior year of high school, when talking with gay/lesbian/bisexual/transgender people, I was comfortable if they casually touched me.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

2) During my senior year of high school, I wouldn't have minded if my teacher knew that I was gay/lesbian/bisexual/transgender.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

3) During my senior year of high school, whenever I thought about being gay/bisexual/transgender, I felt depressed.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

4) During my senior year of high school, I believed that minority sexual identities were not as good as heterosexuality.

OR, if you identify as transgender:

During my senior year of high school, I believed that transgenderism was not as good as cisgenderism (i.e., when your gender matches your sex)

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

5) During my senior year of high school, when I told my friends about my sexual or gender minority status, I worried that they would remember things about me that would make me seem to fit a gay/lesbian/bisexual/transgender stereotype.

- 1 = I strongly disagree
 2 = 1 disagree
 3 = I do not disagree or agree
 4 = 1 agree
- 5 = 1 strongly agree

6) During my senior year of high school, I was glad to be gay/lesbian/bisexual/transgender.

- 1 = I strongly disagree
 2 = 1 disagree
 3 = I do not disagree or agree
 4 = 1 agree
- 5 = 1 strongly agree

7) During my senior year of high school, I believed that sexual minority identities are natural expressions of sexuality in humans.

OR, if you identify as transgender:

During my senior year of high school, I believed that gender-variant identities are natural expressions of gender in humans.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

8) During my senior year of high school, when I was sexually attracted to someone, I felt uncomfortable.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree

- 4 = 1 agree
- 5 = 1 strongly agree

9) During my senior year of high school, I was proud to be a part of the LGBTQ community.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

10) During my senior year of high school, I believed that same-sex marriage should be legalized.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

11) During my senior year of high school, my sexual/gender minority status made me unhappy.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

12) During my senior year of high school, I felt that gay/lesbian/bisexual/transgender people were overly sexual.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

13) During my senior year of high school, when I was sexually attracted to someone, I didn't mind if others knew how I felt.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

14) During my senior year of high school, I believed that most problems that gay/lesbian/bisexual/transgender people have come from their oppressed minority statuses rather than their sexual or gender minority statuses.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

15) During my senior year of high school, when people knew I was gay/lesbian/bisexual/transgender I was afraid they would not relate to me as a person.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

16) During my senior year of high school, I believed that gay/lesbian/bisexual/transgender lives are not as fulfilling as heterosexual/cisgender lives.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

17) During my senior year of high school, I would not have minded if my neighbors had known that I was gay/lesbian/bisexual/transgender.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

18) During my senior year of high school, it was important for me to hide that I was gay/lesbian/bisexual/transgender.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

19) During my senior year of high school, whenever I thought a lot about being gay/lesbian/bisexual/transgender, I felt negatively about myself.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

20) During my senior year of high school, I believed that having an alternative sexuality or gender should be an option for children.

1 = I strongly disagree
2 = 1 disagree
3 = I do not disagree or agree
4 = 1 agree
5 = 1 strongly agree

21) During my senior year of high school, if my straight friends had known I was gay/lesbian/bisexual/transgender, I would have been uncomfortable.

- 1 = I strongly disagree 2 = 1 disagree 3 = I do not disagree or agree 4 = 1 agree
- 5 = 1 strongly agree

22) During my senior year of high school, I was afraid that if others knew I was gay/lesbian/bisexual/transgender, they would avoid me.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

23) During my senior year of high school, I believed that sexual and gender minority statues were perversions.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

24) During my senior year of high school, if it were made public that I was gay/lesbian/bisexual/transgender, I would be extremely unhappy.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

25) During my senior year of high school, I was afraid many of my peers would not want to be friends with me if they knew I was gay/lesbian/bisexual/transgender.

1 = I strongly disagree
2 = 1 disagree
3 = I do not disagree or agree
4 = 1 agree
5 = 1 strongly agree

26) During my senior year of high school, if others knew I was gay/lesbian/bisexual/transgender, I did not worry that they would see me as bad.

1 = I strongly disagree
2 = 1 disagree
3 = I do not disagree or agree
4 = 1 agree
5 = 1 strongly agree

27) During my senior year of high school, I wished I were heterosexual.

OR, if you identify as transgender:

During my senior year of high school, I wished I were cisgender.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

28) During my senior year of high school, when I thought about coming out to my peers I was afraid they would pay more attention to my physical affection and style of dress.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

29) During my senior year of high school, I did not think I would be able to have a long-term love relationship.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

30) During my senior year of high school, I was confident that my sexual/gender minority status did not make me inferior.

- 1 = I strongly disagree 2 = 1 disagree 3 = I do not disagree or agree 4 = 1 agree
- 5 = 1 strongly agree

31) During my senior year of high school, I was afraid that people would harass me if I came out more publicly.

- 1 = I strongly disagree 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

32) During my senior year of high school, when I thought about coming out to straight friends, I did not worry that they might watch me to see if I did things that are stereotypically gay/lesbian/bisexual/transgender.

- 1 = I strongly disagree
- 2 = 1 disagree
- 3 = I do not disagree or agree
- 4 = 1 agree
- 5 = 1 strongly agree

Appendix E

Modified Outness Inventory

If you are both transgender and gay, lesbian, or bisexual, please answer questions from the perspective of your transgender status.

Use the following rating scale to indicate how open you are <u>currently</u> about your sexual orientation to the people listed below. Respond to all of the items that are relevant for you, entering 0 for those questions that do not apply.

1 = Person definitely does not know about your sexual/gender orientation status.

2 = Person might know about your sexual/gender orientation status, but it is never talked about. 3 = Person probably knows about your sexual/gender orientation status, but it is never talked about.

4 = Person probably knows about your sexual/gender orientation status, but it is rarely talked about.

5 = Person definitely knows about your sexual/gender orientation status, but it is rarely talked about.

6 = Person definitely knows about your sexual/gender orientation status, and it is sometimes talked about.

7 = Person definitely knows about your sexual/gender orientation status, and it is openly talked about.

0 = Does Not Apply

1. Parents	
2. Siblings (sisters, brothers)	
3. Extended family/relatives	
4. Old heterosexual friends	
5. Co-workers	
6. Members of your religious commun	nity
7. New heterosexual acquaintances	

Now use the same rating scale to indicate how open you were about your sexual/gender orientation <u>during your senior year of high school</u> with respect to the people listed below. Respond to all of the items that are relevant for you, entering 0 for those questions that do not apply.

1 = Person definitely does not know about your sexual/gender orientation status.

2 = Person might know about your sexual/gender orientation status, but it is never talked about. 3 = Person probably knows about your sexual/gender orientation status, but it is never talked about. 4 = Person probably knows about your sexual/gender orientation status, but it is rarely talked about.

5 = Person definitely knows about your sexual/gender orientation status, but it is rarely talked about.

6 = Person definitely knows about your sexual/gender orientation status, and it is sometimes talked about.

7 = Person definitely knows about your sexual/gender orientation status, and it is openly talked about.

0 = Does Not Apply

1.	Parents	
2.	Siblings (sisters, brothers)	
3.	Extended family/relatives)	
4.	Heterosexual friends at school	
5.	Co-workers	
6.	Members of your religious community	
7.	New heterosexual acquaintances	
8.7	Teachers at your high school	
9. 1	Peers at your high school who you weren't necessarily friends with	

Appendix F DASS-21

Please read each statement and click a number 0, 1, 2 or 3 that indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree, or a good part of time
- 3 Applied to me very much, or most of the time
- 1. I found it hard to wind down
- 2. I was aware of dryness of my mouth
- 3. I couldn't seem to experience any positive feeling at all
- 4. I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)
- 5. I found it difficult to work up the initiative to do things
- 6. I tended to over-react to situations
- 7. I experienced trembling (eg, in the hands)
- 8. I felt that I was using a lot of nervous energy
- 9. I was worried about situations in which I might panic and make a fool of myself
- 10. I felt that I had nothing to look forward to
- 11. I found myself getting agitated
- 12. I found it difficult to relax
- 13. I felt down-hearted and blue
- 14. I was intolerant of anything that kept me from getting on with what I was doing
- 15. I felt I was close to panic
- 16. I was unable to become enthusiastic about anything
- 17. I felt I wasn't worth much as a person
- 18. I felt that I was rather touchy
- 19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)
- 20. I felt scared without any good reason
- 21. I felt that life was meaningless

Please indicate how many times you have attempted suicide in your lifetime.

Appendix G

School Experiences

School Belonging

Please respond to the following statements using the following scale from 1-5:

- 1. Strongly Disagree
- 2. Somewhat Disagree
- 3. Neither Agree nor Disagree
- 4. Somewhat Agree
- 5. Strongly Agree
 - 1. I was happy to be at school
 - 2. I felt safe at school

3. The teachers at my school treated me fairly

- 4. I felt like I fit in at school
- 5. I attended or was involved in some kind of school related activity or school function

<u>GPA</u>

27. What was your high school GPA upon graduation or withdrawal from school?

Absenteeism

- 28. During a typical month of your senior year of high school, how many days on average were you absent? _____
- 29. How many of the days that you were absent during a typical month of your senior year of high school were missed due to safety concerns because of your sexual orientation or gender expression?

Educational aspirations

- 30. During high school, which of the following best described your post-secondary educational goals?
 - a. I never thought about school after high school
 - b. I had no educational goals past high school
 - c. I planned on attending at least two years of college (including voc/tech)
 - d. I planned on earning my Bachelor's degree
 - e. I planned on earning a graduate degree

Appendix H

School Supports

<u>GSAs</u>

- 31. Please think about the high school you attended for the longest period of time. What is the longest period of time for which you attend this high school?
 - a. One year
 - b. Two years
 - c. Three years
 - d. Four or more years
- 32. Did this high school have a gay-straight student alliance or some type of a support group for LGBTQA students?
 - a. Yes
 - b. No
- 33. If yes, were you a member of this group?
 - a. Yes
 - b. No
- 34. If yes, how would you best describe the goals/aim/direction of this group?
 - a. Invisible group focused on counseling with a school guidance counselor.
 - b. A "safe space" group focused primarily on providing social support for LGBT students and their friends.
 - c. A social and activist/educational group whose focus was on creating and maintaining a tolerant school climate.
 - d. A group that was part of a broader effort to educate and raise awareness within the school and community.
- 35. What percentage (approximately) of this group was made of:
 - a. Gay Males ____%
 - b. Lesbians ____%
 - c. Bisexuals ____%
 - d. Transgender Youth ____%
 - e. Heterosexuals ____%
 - f. Total _____% (Should equal 100)

Supportive school personnel

- 36. Did you have a teacher, staff member, or administrator who was supportive of LGBT students?
 - a. Yes
 - b. No

37. If yes, how many supportive teachers, staff members, or administrators did you have in your school _____?

Safe zones

- 38. Were there areas, such as "safe zones" in your school that were designated as safe spaces for sexual and gender minority students?
- 39. Did the school that you attended for the longest period of time have gender neutral bathrooms or changing rooms for gender minority students?

Inclusive Curricula

- 40. Please indicate if you agree with the following statement: I was taught about positive LGBT role models or LGBT-related events in my classes
 - a. Yes
 - b. No
- 41. If yes, in which classes were you taught about positive LGBT role models or LGBT-related events?

Peer support

- 42. In the high school that you attended for the longest period of time, how accepting of LGBT people were the students in general?
 - a. Not at all accepting
 - b. Not very accepting
 - c. Neutral
 - d. Somewhat accepting
 - e. Very accepting
- 43. What percentage of the student body in the high school that you attended for the longest period of time were accepting of LGBT students?
 - a. Less than 10%
 - b. 10-25%
 - c. 25-50%
 - d. 50-75%
 - e. Over 75%

Antidiscrimination policies

44. Which of the following best describes the antidiscrimination policy at the school that you attended for the longest period of time:

- a. There was no antidiscrimination policy/I don't know if there was an antidiscrimination policy
- b. Our school had a general antidiscrimination policy that did not specify protections based on sexual orientation or gender expression/identity.
- c. Our school had an antidiscrimination policy that specified protections based on either sexual orientation or gender expression/identity, but not both.
 - i. Please specify which was protected: sexual orientation or gender identity/expression _____
- d. Our school had a comprehensive antidiscrimination policy that specified protections based on sexual orientation AND gender identity/expression