LEBANON, GAY, BISEXUAL AND QUESTIONING ADOLESCENTS:
THEIR SOCIAL EXPERIENCES AND THE ROLE OF SUPPORTIVE
ADULTS IN HIGH SCHOOL

by

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Abstract

The extant research on the experiences of lesbian/gay, bisexual, and questioning — unsure- (LGBQ) youth shows that they have a lower sense of belonging and safety at school, are more likely to be victims of various types of bullying and to skip school, and use drugs and alcohol than their straight peers. Lately, however, a shift in direction towards examining the protective factors, which promote the well being of LGBQ youth, is happening. Extending the emerging research on this shift, the present study investigated the role of supportive adults at school in predicting LGBQ youth sense of safety and belonging. Also, this study examined whether adult support moderated the relationship between sexual orientation victimization and skipping school for LGBQ youth separately. The participants in this study (N = 19,551) were students (grades 8 through 12) enrolled in high schools that took part in a district-wide survey in a large, ethnically and economically diverse urban school district in British Columbia. Results showed that perceptions of adult support played a significant role in predicting the safety and belonging of LGBQ youth. Adult support significantly moderated the relationship between sexual orientation victimization and skipping school for bisexual and questioning youth but not for lesbian/gay youth. The implications, limitations, and directions for future research are discussed in the last section of this thesis.
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Chapter 1

Introduction

Adolescence is a developmental phase during which questions around sexual identity come forward (Williams, Connolly, Pepler, & Craig, 2005). Regardless whether youth identify themselves as attracted to others of the same gender, the other gender, both genders, or are unsure; youth of all sexual orientations need the love and support of parents, tend to be preoccupied with their peer status, wonder about their future, shift their focus from family to peers, and think through their on-going relationships as they make the transition to adulthood (Savin-Williams, 2001; Telljohann & Price, 1993). All youth face these tasks. Also, youth of all sexual orientations have the right to be safe at school and share a strong psychological need to belong and form connections with others in their environment (Galliher, Rostosky, & Hughes, 2004).

When the need to belong is met, individuals experience positive outcomes (Baumeister & Leary, 1995). However the need for connectedness and belonging is sometimes muted through stigmatization, victimization, discrimination, and exclusion, leaving youth emotionally distressed and alone. One of the most influential environments in an adolescent’s life is school, which does not only set the stage for the academic growth of the individual but also is one of the first and most powerful social contexts after and away from the family. School is also a key context in which adolescents can experience harassment and victimization and a sense of rejection. Youth who are lesbian/gay, bisexual, questioning-unsure, or queer (LGBQQ) or are perceived as LGBQQ are particularly likely to be targets of victimization and harassment at school (D’Augelli, Pilkington, & Hershberger, 2002; Murdock & Bolch, 2001).
Ample research shows that students who identify as LGBQQ sexual orientation are at risk for victimization and exclusion, which contribute to poorer school adjustment as indicated by lower school achievement and school belonging in comparison to their heterosexual peers (Rostosky, Owens, Zimmerman, & Riggle, 2003). However, today, unlike in the past, sexual minority youth’s emotional problems are not viewed as a consequence of their sexual orientation but rather a result of the risk factors and unavailability of protective factors in the youth’s environment (Williams et al., 2005). Moreover, a few recent studies have shown that not all LGBQQ youth experience victimization, harassment, and a sense of rejection and/or isolation at school (see Murdock & Bolch, 2005). Extending this research, the purpose of this study was to examine the role of supportive adults at school on reported victimization and feelings of safety among sexual minority students. While there is ample literature on the challenges that sexual minority youth face at school, there is a dearth of research on the protective factors that could promote their resiliency. In addition, current research increasingly calls for a change in the ways schools could contribute to the positive experiences of sexual minority youth (Diorio, 2006; Russell, 2005).

This study investigated adult support and its relationship to various experiences that LGBQQ youth witness at school. The examination of multiple experiences, rather than one or two, allowed for determining whether there is a consistent relationship between positive perceptions of adults and LGBQQ youth resiliency, making it possible to conclude that adult support at school serves as a protective factor for the participants in this study. The present thesis contributes to a growing body of research on the protective factors that promote the positive development of LGBQQ youth (Goodenow, Szalacha, &
Westheimer, 2006; Murdock & Bolch, 2005). The present study also considers the variability among LGBQQ youth, consistent with arguments that LGBQQ youth should not be classified as one homogeneous group (Elze, 2005).

This thesis is organized into several parts. First, a review of existing literature is presented, addressing recent research on: 1) peer relationships, 2) students’ relationships with adults at school, 3) sexual orientation, 4) lesbian, gay, bisexual, and youth adolescents and their relationship to the high school, as an institution, 5) LGBQQ youth relationships with peers and 6) LGBQQ adolescents’ relationships with their teachers and the narrow literature on the role of adults in promoting the well being of LGBQQ youth. Following this, the design and hypothesis of the study are presented. Then, a description of methods and measures is provided followed by a description of analyses and results. Lastly a discussion section addresses the present findings in relation to the literature extant, and the implications of these findings for LGBQQ youth in schools.

In this study, the terms adolescence and adolescents refer to students enrolled in secondary school which in British Columbia (BC) includes the eighth through twelfth grades. Biologically, however, the most accepted indicator is entry into puberty (Elliott & Feldman, 1990). Moreover, it is important to highlight that, when referring to the participants in the study, the term LGBQ youth is used because the study included youth who self-identified as lesbian/gay (LG), bisexual (B), or unsure/questioning (Q). However, when referring to youth in the extant literature, the acronym LGBQQ is used, the second Q referring to youth who prefer to identify themselves as queer (Diamond, 2005; Elze, 2005; Savin-Williams, 2005), a category not considered in this study.
Chapter 2

Review of Literature

*The Universal Need to Belong*

The need to belong is a basic human motivation and its deprivation has been linked to various aversive and pathological consequences ranging from stress to contemplation of suicide (Baumeister & Leary, 1995). In developing and assessing the hypothesis that the need to belong is a fundamental human motivation, Baumeister and Leary assert that belongingness requires the fulfillment of two criteria. The first criterion necessitates having repeated, emotionally favorable interactions with a few other people. The interactions need to happen repeatedly with the same people as opposed to a constantly changing series of individuals. The second criterion requires that the interactions occur in a stable and durable context, which includes people concerned for each other’s good. In contemporary North American culture, the family is the first “community” to which an adolescent is expected to develop a sense of belonging since infancy. Another key community that could potentially provide adolescents with a sense of belonging is high school.

A sense of school belonging is founded on social experiences that develop from interpersonal relationships among members of the school community (Goodenow, 1993; Osterman, 2000). Recent research in psychology reveals that the experience of belonging is a significant factor in understanding the behavior and performance of students (Osterman, 2000). A sense of belonging to a community, like high school, or a sense of community, is not limited to merely fitting in. It essentially involves an emotional attachment and a feeling of safety, a sense of being acknowledged, and encouraged. The
sense of community was defined by McMillan and Chavis (1986) as “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together” (p. 9). Emotional connectedness and security stem from feeling that one makes a difference in the community and that the community makes a difference in one’s life. In other words, the sense of being of value is reciprocated between the individual and the community (Hamm & Faircloth, 2005). “Being a member of a community includes feeling part of a group. In the school, this community consists primarily of students and teachers” (Osterman, 2000, p. 324). Two representations of a sense of school belonging are positive adult-student and student-student relationships (Zins, Weissberg, Wang, & Walberg, 2004).

The focus on developing a sense of school belonging, particularly in high school, is gaining the attention of educators and policy makers only recently. Schools have been infamous for paying scant attention to the affective needs of students (Osterman, 2000). Kunc (1992) has attributed the lack of interest in the development of student sense of belonging to the school community to three practices. The first practice is the schools’ giving priority to mastery and competition over belonging. The second practice involves making belonging a reward for achievement and conformity. The third practice stems from a general belief that the social and emotional needs of students are met at home and/or through social relationships outside the classroom. High schools have always focused on teaching students the subject matter. However, in our time, information and knowledge are at the fingertips of adolescents through highly accessible technology and the Internet; a sense of school belonging is not. Undoubtedly, schools are first and
foremost systems established to formally educate the youth yet they, simultaneously, are key contexts for social interactions, starting peer groups, and honing interpersonal skills (Henry & Slater, 2007). As Dewey and Vygotsky believed, education is not an individualistic process but a social process (Osterman, 2000).

A lack of school belonging can also yield to a wide spectrum of negative consequences, which range from lower academic achievement to the extreme level of dropping out of school and/or engaging in school violence. Ma (2003) suggests that the consequences of a deprivation of school belonging are not restricted to recent tragedies of school violence. Sometimes youth turn to gangs, which are youth groups often characterized as source of trouble for schools and adults in a community, as a result of lack of school belonging (Reep, 1996). Through case studies, Fine (1991) revealed that lack of school belonging was a direct cause for leaving high school.

The overall presence of research on high school belonging is much narrower in comparison to research on middle school belonging, which is predominantly linked to academic achievement (Booker, 2006). Research on high school belonging in general is limited in scope, often linked only with academic achievement. One cannot assume that the results of studies targeting sense of middle school belonging could simply be generalized to high school students’ sense of belonging. Moreover, the lack of school belonging could lead to consequences beyond, and more alarming than, lower academic achievement.

As mentioned earlier, a sense of school belonging is embodied through student relationships with their peers and non-parental adults at school. The next section reviews the literature on the role of peer acceptance and support in creating a sense of school
belonging. It also refers to research on the consequences of lack of peer support and peer victimization.

Student-Student Relationships

The significance of peer relations reaches a peak during adolescence, a time where peers shape a youth's value system (see Booker, 2004; Brown 1990; Harter, 1990; Savin-Williams & Berndt, 1990). This phenomenon is particularly relevant in contemporary industrial North American culture (Hargreaves, Earl, & Ryan, 1996), where the influence of peers on the social development of adolescents is irrefutable. Consequently, during adolescence peers and peer relationships in the school setting are key factors in the development of a sense of belonging to school (Hymel, Comfort, Schonert-Reichl, & McDougall, 1996; Osterman, 2000). Peer acceptance at school, which implies getting along well with peers, is linked to pursuit of prosocial goals and commitment to coming to school (Certo, Cauley, & Chafin, 2003; Wentzel, 1998). Given that learning at school takes place in a social context, lack of peer acceptance could have a negative impact on academic progress (Parker & Asher, 1987). The adverse effects of lack of peer acceptance go beyond academic performance. Perceptions of low peer acceptance or peer rejection have been associated with various adversities, including victimization (see McDougall, Hymel, Vaillancourt, & Mercer, 2001; Perry, Kusel, & Perry, 1988; Asher & Parker 1989).

Pursuing social goals is largely dependent on students feeling that they are an integral part of the social group (Wentzel, 1994). Wentzel (1998) found that perceived peer support was the only predictor, among perceived parent support and teacher support, of student pursuit of prosocial goals, which involve sharing and helping peers with
academic problems. After interviewing 33 high school students, Certo and colleagues (2003) concluded that the level of student commitment to school, their sense of belonging, increases when their social goals are met. In their study, social goals implied socializing and interacting with friends during non-instructional time, such as between classes and during lunchtime. As one student in the study stated, “You know, I enjoy most of my classes and it’s kind of fun, you know, it’s usually just the student body that really keeps me coming” (Certo et al., 2003, p. 76). At school adolescents seize the opportunity to share with their peers their “adolescent-specific” concerns, away from adults and from schoolwork. The peer group is an influential source of principles, advice, feedback, and social comparisons (Harter, 1990) and, through the peer group, an adolescent could find others who are just “like me” (Savin-Williams, 2005). Thus unsurprisingly, peer groups can be sources of safety, caring, and reassurance for adolescents.

Unfortunately, adolescence could also be a disheartening time for students because sometimes high school peer relationships are highly exclusive and clearly delineated. Hamm and Faircloth (2005) interviewed 24 male and female tenth and eleventh graders from a public high school in a US southeastern city. The respondents discussed to what extent they felt they belonged to school and reflected on what makes them feel connected to their school and their friendships. The researchers found that many students felt isolation stemming from perceiving a lack of acceptance by the student body in general. Over 80% of the students they interviewed mentioned that “cliquishness” makes students feel alienated. On the other hand, most of the students that Certo et al. (2003) interviewed indicated the existence of cliques in their school yet
acknowledged it as a fact of human nature. What seemed to matter was the presence of a
general atmosphere of acceptance among students. This finding concurs with Brown's
(1990) assertion that during adolescence, peer relationships transcend dyadic and clique
relations.

Low peer acceptance and peer rejection have been linked to multiple adversities,
one of which is peer victimization (McDougall et al., 2001; Perren & Hornung, 2005;
Perry, Kusel, & Perry, 1988). For the past two decades, victims of school bullying have
increasingly captured the attention and invoked the concern of child and adolescent
development researchers in various countries partly due to bullying being a chronic act
that has, in some cases, lead to tragic outcomes. The majority of bullying research has
been conducted with younger children (Newman, Holden, & Delville, 2005).
Nevertheless, the nature of the relationship between victimization, bullying, and peer
acceptance has been consistent between childhood and adolescence. For example, in
Switzerland, Perren and Hornung (2005) found that, for 1107 Swiss adolescents, being
bullied had a significant, negative relationship with peer acceptance. Similarly, almost
two decades ago, Perry et al. (1988) found that the victimization of 165 students, in
grades 3 through 6, had a significant negative correlation with peer acceptance.

Students who are victimized at school show diminished interest in and belonging
to school (Hanish & Guerra, 2000). Several studies have emphasized the positive role of
perceived social support on minimizing the adverse effects of victimization (Newman et
al., 2005; Rigby, 2000), which could be a chronic stressor (Newman et al., 2005).
Victimization mutes a student’s need to belong at school and renders one’s safety and
survival “unharmed” at school into a constant, conscious concern.
What makes certain students targets of bullying? Although the answer to this question varies, one explanation is that peers’ interpretation of a student’s characteristics drives peer victimization (Hanish & Guerra, 2000). The interpretations that youth make are deeply rooted in how they are socialized. Students who are perceived as individuals, who have strayed away from the recognized, established norms of their surroundings are usually victims of bullying. Lesbian, gay, bisexual and unsure youth, particularly gay and lesbian youth, or youth perceived as lesbian, gay, or bisexual have been targets of bullying and victimization as a result of being members of societies which predominantly overlook homophobia (Little, 2001) and believe that heterosexuality is the legitimate way of living. Because these LGBQQ youth are perceived as “different” and because they defy the existing social norms, these youth could be the victims of repetitive peer harassment (Baker, 2002; Franklin, 2000).

In today’s Western culture, the role of peers in an adolescent’s life is undeniable; therefore, being a victim of peer bullying has the potential of depriving a student from experiencing a sense of school belonging. However, peers are not the only major players in the development of school belonging. Adults at school are also major contributors to an adolescent’s sense of school belonging as explored in the next section of this proposal.

*Students’ Relationships with Adults at School*

In North America, public elementary schools are usually small and students, for an entire academic year, have an extensive and close contact with one teacher. From elementary school, students make the transition to middle or high school, where students have shorter and more impersonalized encounters with not one or two but many teachers (Goodenow, 1993). Hence, puberty is not the only major change happening in an
adolescent’s life. A shift from elementary school to middle or junior high school is also a milestone in the lives of many teenagers. A student’s feeling of school belonging is related to the nature of the adult-student relationships experienced (Osterman, 2000). Roeser, Midgley, and Urdan (1996) suggest that schools are environments that potentially can present early adolescents with opportunities to develop their intellectual capacities, identify a sense of competence, experience belonging, and interact with supportive non-parental adults. Positive relationships with teachers at school may be quite central to the adjustment of early adolescents. The youth at this time find themselves looking for non-parental role models and mentors (Goodenow, 1993; Roeser et al., 1996). Also, during tough times teachers and other adults can play an effective role in preventing the occurrence of negative developmental outcomes (Croninger & Lee, 2001).

Teachers form the core of significant adults at school. They play a key role in making students feel that they are accepted and valued at school (Goodenow, 1993; Osterman, 2000). Several researchers have examined the relationship between students’ perception of teacher support and its relationship to various outcomes, including academic performance and motivation, school interest, positive prosocial goal pursuit, lower levels of absenteeism, safety and school dropout. Also, some research studies have underscored the non-academic role that teachers play in adolescents’ lives and the qualities that teens value in a teacher and/or would like to observe in a teacher.

Student perceptions of teacher support have been shown to be a strong predictor of student academic performance, motivation, and value of subject matter (see Goodenow, 1993; Wentzel, 1997, 1998; Midgley, Feldlaufer, & Eccles, 1989). Based on the reports of 353 sixth through eighth graders, Goodenow (1993) found that teacher support
predicted early adolescents’ assessment of the interest, importance and value of academic work in particular classes. Specifically, teacher support was a major predictor of students’ expectancies for success in academic work. Additionally, Wentzel (1998) found that perceived teacher support was a stronger predictor of school interest than perceived support from parents and peers for 167 sixth-grade students in a US middle school. Using a longitudinal sample of 248 eighth-grade students, Wentzel (1997) examined the role of adolescent perceptions of caring teachers in predicting academic effort. The results demonstrated that student perceptions of caring teachers were significantly and positively linked to student academic effort. The results held true even after controlling for previous motivation and effort and current control beliefs and distress.

A relatively recent Canadian study examined student self-report of school belonging. Ma (2003) analyzed secondary data from a large-scale education survey, collected in 1996 from the New Brunswick School Climate Study (NBSCS). Participants included 6,883 Grade 6 students and 6,868 Grade 8 students. One of the author’s goals was to find which school characteristics contributed to differences in a sense of belonging among students. The results illustrated that school size and mean school socio-economic status (SES) were not significant predictors in explaining students’ sense of school belonging. In contrast, teachers and administrators had an important role in shaping students’ belonging. A sense of attachment and security was observed in the sixth graders who felt “at home in school” (p. 348) as a result of perceiving peers and teachers as concerned for one’s academic wellness. For eighth graders the school’s disciplinary environment, or the school’s disciplinary rules, determined their sense of belonging.
When students perceived the school’s disciplinary rules as unjust, they developed a negative sense of belonging and a perception of school being unsafe.

Perceptions of belongingness encourage the adoption and internalization of the goals and values of caregivers (Baumeister & Leary, 1995). In the classroom for students, this translates into the valuing of a teacher’s principles, including prosocial goals and social responsibility goals, if they sense that the teacher cares about them (Wentzel, 1997). For example, in Wentzel’s (1997) study following 248 students from sixth through eighth grade, eighth graders who perceived their teachers as caring were more likely to pursue prosocial goals, and social responsibility goals. According to Wentzel (1997, 1998) the pursuit of prosocial goals involves sharing and helping peers and the seeking of social responsibility goals includes abiding by classroom norms and rules. On the other hand, in another study that inspected the relationship between prosocial and social responsibility goals pursuit and supportive relationships with peers, parents and teachers, Wentzel (1998) found that among sixth graders in middle school perceived teacher support predicted social responsibility goals whereas perceived peer support predicted student pursuit of prosocial behavior. What is noteworthy was that perceived family support did not predict the pursuit of either prosocial or social responsibility goals. Both studies affirm that when students regard their teachers as supportive, they are more likely to comply with the classroom norms, perhaps because the students felt safe with their teacher.

At present, the implications of dropping out of high school are increasingly becoming grim (Croninger & Lee, 2001). A lack in one’s sense of belonging has repeatedly been linked to dropping out in various studies. Ethnographic and survey-
based studies articulate that students who drop out often express the lack of social and academic support as one motive. In a study that investigated the reasons for students’ early withdrawal from Ontario’s secondary schools, Karp (1988) asked dropouts to provide ways in which the school system could change so that it would be a better place for individuals similar to them. The suggestions of respondents primarily revolved around teachers, with 47% of respondents indicating thought change was needed in the teachers themselves. More caring teachers, better relationships with students and more extra help for students with difficulties were priorities among students’ recommendations for change. Similar beliefs were voiced in Schlosser’s (1992) study with 14 marginalized students and their teachers. When asked to identify the qualities that distinguished the adults with whom they discussed their problems, the students stated that they were adults who noticed them and inquired if they were in trouble, discussed topics that concerned students (peer group problems, drugs, values), offered to be available after class, and listened to them with patience. One of the teachers interviewed by Schlosser mentioned that the single most important piece that plays a role in the success of marginal students is connectedness to the school built on a completely non-academic level. Students develop a sense of belonging to their environments when they know that they are worthy regardless of the grades that they obtain.

Teachers can offer emotional support as well as encouragement and guidance about social and academic aspects of their lives and academic assistance (Croninger & Lee, 2001). Students are cognizant of the qualities of a caring, supportive teacher and they usually attribute their school engagement to their teachers’ caring. Certo, Cauley, and Chafin (2003) conducted an interview study in order to obtain a snapshot of 33 high
school students' experiences. Students stated that they knew who the caring teachers were and they described them as “encouraging” and “helpful”. Listening was the most common quality that set apart a caring teacher. Students also reported that the caring teachers had an idea about the students’ lives outside of school. Certo and colleagues also found that generally teachers played the most critical role in student dedication to school. The students felt safe with teachers who did not give them commands and orders but rather gave them an opportunity to express themselves. Similarly, Wentzel (1997) found that students identified open, reciprocated communication, represented through talking and listening, asking questions, and paying attention, as some of the outstanding qualities of teachers who cared.

Teachers’ academic as well as non-academic roles in the lives of students cannot be overlooked, especially at the onset of adolescence when young people are searching for adults outside their family for support. Teacher support could be particularly essential for students who are part of socially stigmatized groups, like LGBQQ youth (Telljohann & Price, 1993). Students who do not conform to the deeply rooted norms of heterosexuality may find themselves unable to turn to family and peers during harsh times. Telljohann and Price suggest that these adolescents need a “sympathetic other”. Teachers and other adults at school can be a central source of support and awareness for such adolescents.

The prevalent and rather explicit support of society for heterosexual norms places LGBQQ youth at social risk. LGBQQ youth are at social risk because their surroundings deny them access to facts about their sexuality and appropriate role models (Telljohann & Price, 1993). Croninger and Lee (2001) argue that when students who are at social risk
trust their teachers and obtain informal guidance from them, they are more likely to stay in school. Thus, the role of supportive adults at school could be of heightened importance for adolescents who have diminished sources of support in their lives.

The forthcoming sections take a deeper look at students who have a LGBQQ sexual orientation, who have been dominantly portrayed in the literature as having diminished social support. The school experiences of this group of youth are explored, along with their relationships with peers and adults. The existing literature on how adults at school could improve the experiences of LGBQQ students is also discussed.

*What is Sexual Orientation?*

Sexual orientation, as defined by Savin-Williams in *The New Gay Teenager*, is “the preponderance of erotic feelings, thoughts, and fantasies one has for members of a particular sex, both sexes, or neither sex...[and]... is considered to be immutable, stable over time, and resistant to conscious control” (2005, p. 28). Adolescence is a time of emerging questions about one’s sexual identity and where one falls along the sexual spectrum (Williams et al., 2005). It is a time where adolescents find themselves attracted to others, either same sex, opposite sex, or both sexes. It is also a time of being unsure about to which gender one is attracted.

Sexual orientation is discerned through verbal and nonverbal components: sexual and romantic attractions, erotic fantasies, sexual behavior, romantic relationships, and identity labels (Savin-Williams & Ream, 2006). While some studies define sexual populations through a single measure of sexual orientation, other studies rely on one or more of sexual orientation’s components. One of the components frequently used in various studies is sexual romantic attraction (e.g., Busseri, Willoughby, Chalmers, &
Bogaert, 2006; Russell, Seif, & Truong, 2001). Thus, different studies have used different methods and questions in reporting the sexual orientations of their respondents. This calls for caution in generalizing the findings of studies across different populations.

Although it is impossible to know exactly how many youth have a LGBQQ sexual orientation (CUISR, 2003; Savin-Williams, 2005), Savin-Williams and Reams (2006) indicate that the prevalence for LGBQQ stretches from 1% to 15%, which are figures concurrent with what several researchers have discovered. Using a representative sample of Minnesota junior and senior high school students (grades 7 though 12), Remafedi, Resnick, Blum, and Harris (1992) found that 10.7% of the students were “unsure” or questioning of their sexual orientation, 0.7% identified themselves as bisexual and 0.4% as homosexual (mostly or totally). In a nationally representative study in the U.S., using data from the Add Health Study, Russell et al. (2001) found that 0.7% of males and 1.5% of females reported exclusive same-sex attractions and 6.5% of males and 3.8% of females reported attraction to both sexes.

The Community-University Institute for Social Research (CUISR) referred to two estimates of homosexuality base rates in the Canadian population (2003). The low estimate was 5% and the high estimate was 10%. The 5% estimate was based on a median of reviewed studies (n=48 results; maximum= 37% and minimum=0.2%). A recently published study encompassing 25 high schools in a school district in a southern Ontario region asked students to choose which sexual attraction best represented them. Only 3.4% reported bisexual attraction and 0.9% reported same-sex attraction (Busseri et al., 2006). The McCreary Centre Society published a report in 2007 on the health of lesbian/gay and bisexual youth in BC. The BC Adolescent Health Survey (AHS)
included 30,000 youth across the province, representing more than 280,000 youth enrolled in public school. Based on the results of the AHS conducted in 2003, almost 1% reported being lesbian or gay, 2% reported being bisexual, and 6% reported being unsure (Saewyc, E., Poon, C., Wang, N., Homma, Y., Smith, A., & the McCreary Centre Society, 2007). It is important to highlight that the age of respondents makes a difference in percentage of reporting because adolescents are less likely to report their sexual orientation than adults (Savin-Williams, 2005).

Research on the experiences of LGBQQ youth in high school has flourished in the past decade yet it has its limitations (Russell, Seif, & Truong, 2001). One salient limitation is that previous research has focused more on lesbian and gay sexual orientation than bisexual orientation (Russell et al., 2001). Sample size limitations and researchers’ presumptions that bisexuality precedes a gay or lesbian identity have results in fewer studies on bisexual youth (Russell et al., 2001). As will be observed in later sections, research on youth who are unsure or who are questioning their sexual orientation has received even less attention despite the fact that not identifying as a heterosexual could still imply facing the contextual challenges encountered by lesbian, gay, and bisexual youth (Williams et al., 2005). One of this study’s assets was its large sample size, which made it possible to investigate the perceptions of lesbian/gay, bisexual, and unsure youth separately.

Given that the need to belong is a universal human motivation (Baumeister & Leary, 1995), LGBQQ youth, like everyone else, seek a sense of belonging in school. Also, like all teens, LGBQQ have the right to be safe at school. Like everyone else, when LGBQQ youth’s need to belong is not met, they face various damaging
consequences. When they sense that their safety is at jeopardy, they risk loosing one of their most basic rights: the right to education. The next section expands on the experiences of LGBQQ youth in high school and the role of social support in facing victimization.

*High Schools and LGBQQ Youth*

Many educators, researchers, and the public, in general, overlook the fact that LGBQQ adolescents have more rather than less in common with their heterosexual peers (D’Augelli, 1998; Savin-Williams, 2005). Adolescents, regardless of their sexual orientation, are negotiating their boundaries with their parents, pondering their relationships, and seeking intimacy through friendships and/or romantic relationships. Youth are thinking about their future. They are considering their educational interests and/or their vocational options (Savin-Williams, 2001, 2005). Despite the fact that similarities outweigh the differences, the fact that LGBQQ youth experience lower levels of school belonging and adult support and higher levels of victimization as well as, “at risk” behavior than LGBQQ youth is well documented (e.g., Busseri et al, 2006; D’Augelli, 1998; D’Augelli, Pilkington, & Hershberger, 2002; Elze, 2003; Russell et al., 2001; Telljohann & Price, 1993; Walters & Hayes, 1998). Evidently, as a result of prevalent societal stigmatization, lesbian, gay, and bisexual youth not only have to face the developmental tasks of adolescence but also have to tackle the complexity of adjusting to the socially stigmatized role of being LGBQQ (Telljohann & Price, 1993).

Lesbian, gay, bisexual, and unsure youth have faced a multitude of social and emotional problems because, until recently, their sexual orientation was viewed as an aberration from the “normal” heterosexual youth. Their adversities were viewed as a
result of their choice rather than a consequence of growing up in homophobic communities (Gonsiorek, 1991). The health risks and social problems that lesbians, gays, and bisexuals encounter are not inherent in their sexual orientation but a result of society’s negative reactions (CUISR, 2003). These problems are a result of homophobia, which is “killing” lesbian/gay and bisexual youth (CUISR, 2003). Homophobia is the social and (later through internalization) individual fear of, discrimination against and contempt for homosexuality, in particular (CUISR, 2003; Little, 2001; Walters & Hayes, 1998). Heterosexism, usually mentioned along with homophobia in the lesbian/gay, bisexual, questioning and transgendered literature, involves a rejection of the existence of LGBQQ individuals. It is based on the belief that heterosexuality is normal and anything LGBQQ is deviant and intrinsically immoral. Little (2001) explains that, whereas homophobia brings prejudice and potential cruelty, heterosexism keeps LGBQQ individuals muted and invisible. Heterosexism isolates LGBQQ people from each other and from the larger “dominant” group (Herek, Kimmel, Amaro, & Melton, 1991).

A culture of heterosexism does not provide its youth with positive images of LGBQQ youth. Gens Hellquist expresses the dangers of homophobia, in his foreword in The Cost of Homophobia: Human Impact, (CUISR, 2003):

“Our health care and education systems are rife with homophobia. Governments are reluctant to take action for fear of hostile reactions from those segments of society who wish to keep homophobia alive. While the research clearly shows that the health and social problems endemic to GLBT population result from stressors of living in a climate of ignorance and hate, those enablers of homophobia twist that research to suggest that merely being gay is the problem’s cause” (p. 4).

Youth are not simply born homophobic and they do not inherently see the world through a heterosexist lens. Homophobia and heterosexism are belief systems that youth
learn through their social surroundings. They internalize them after years of taking on the messages that society’s institutions disseminate. Growing up, adolescents are likely to encounter adults judging that gay people (and other LGBQQ individuals) are inferior and unworthy of respect (Baker, 2002). As Judy Shepard, the mother of Mathew Shepard, who was murdered by two men for being gay, expressed to a college audience in the United States: “I blame society for giving them permission to kill Matt” (http://www.independentgayforum.com/news/printer/26739.htm1). School is a key social institution that contributes to the invisibility of LGBQQ youth. In various ways, high school is a microcosm of society (Elia, 1993), institutions that reflect the problems and values existing in their larger dominant societal realm (Bass & Kaufman, 1996 cited in Little, 2001).

Schools not only mirror society’s values and problems, they are also a mean to ensure the reproduction of citizens who preserve and enforce the deeply rooted values of their societies. As Fine (1986, p. 91) suggests, “Schools do little to disrupt and much to reproduce existing social arrangements”. The resistance of high schools to put an end to homophobia and heterosexism is observed through the experiences of the youth with the members of the school community.

LGBQQ Youth’s Peer Relationships, Victimization, and Risk Behavior

Lack of peer support and the risk of losing of friends contribute to LGBQQ youth feeling deprived of school belonging. If LGBQQ students feel unsafe about disclosing their sexual orientation to their peers at school, they may feel the need to seek support in dangerous settings (Goodenow, Szalacha, & Westheimer, 2006; Telljohann & Price, 1993). Undoubtedly, the choice to disclose one’s sexual orientation is the youth’s
absolute choice. However, the fear for one’s safety and rejection entailed in disclosing is
definitely not the youth’s choice. In one study, nearly one half of the respondents
reported that they lost their friends after they disclosed to them that they were lesbian,
gay, or bisexual (Hershberger & D’Augelli, 1995). Moreover, in their study, Telljohann
and Price (1993) further suggest that gay youth are watchful of their interactions with
peers for fear of having their closeness misinterpreted; thus exposing their sexual
orientation. Their hidden sexual orientation leads to the development of a sense of
isolation (CUISR, 2003; Telljohann & Price, 1993). According to Little (2001), such
isolation could be fatal. Isolation exacerbates the youth’s fear of rejection, thereby
weakening the possibility of LGBQQ youth asking for support. The importance of social
support for youth is underscored by the fact that Williams et al. (2005) found that
depression and externalizing experiences (e.g., fighting, carrying weapons) mount up for
LGBQQ youth because of lack of social support rather than their sexual orientation per
se.

In addition to lack of peer acceptance and social support, various studies have
documented the school-based victimization and harassment of LGBQQ youth (e.g.,
Baker, 2002; D’Augelli, 1998; D’Augelli et al., 2002; Elze, 2003; Goodenow et al., 2006;
Hershberger & D’Augelli, 1995; Little, 2001; Russel et al., 2001; Telljohann & Price,
1993; Williams et al., 2005). One study of 89 male and 31 female self-identified gay and
lesbian youth found that 71% of the females and 73% of the males reported facing rude
comments, physical abuse, violence from some peers and warnings from some parents,
bashing threats, and discrimination (Telljohann & Price, 1993). However, many of these
prior studies relied on non-empirical findings, convenience samples, and targeted
organizations, like clinical settings (Elze, 2005; Russell et al., 2001; Williams et al., 2005). One of the goals of this study was to gain an idea about the actual experiences of LGBQQ youth in school settings.

Existing research suggests that verbal harassment is the most common form of victimization (D’Augelli et al.; Elze, 2003; e.g., Pilkington & D’Augelli, 1995; Remafedi 1987). In one study (Pilkington & D’Augelli, 1995), 80% of the lesbian and gay participants received verbal insults and 33% had objects thrown at them. The participants were predominantly fearful for their safety.

More recent research seems to corroborate the findings of prior studies. Elze (2003) found that verbal harassment and abuse permeated the school days of LGBQQ youth at school. Williams et al. (2005) also found that LGBQQ youth reported higher levels of bullying and harassment than their heterosexual peers. One study (D’Augelli et al., 2002), which looked specifically at verbal and physical victimization of youth because of their sexual orientation (sexual orientation-based victimization), showed that 59% of 350 lesbian, gay, and bisexual youth faced verbal abuse, 24% were threatened with violence, and 11% had objects thrown at them.

“Memories of past victimization and fear for future victimization are plausibly at the heart of considerably higher school avoidance seen among LGB youths compared to heterosexual youths” (D’Augelli et al., 2002, p. 163). D’Augelli and his colleagues are not the only researchers to voice such concerns (see Garofalo Wolf, Kessel, DuRant, & Palfrey, 1998; DuRant, Krowchuk, & Sinal, 1998). Using data from a Youth Risk Behavior Survey conducted in 59 representative high schools across Massachusetts, Garofalo and his colleagues found that 25% of the LGB youth in the study skipped
school in the last month in comparison to 5% of heterosexual youth. However, these studies were conducted a decade ago and research on the experiences during this period has flourished. Moreover, as several experts in the field recently mentioned, research must maintain momentum (Elze, 2005) because the experiences of the earlier generations of LGBQQ youth cannot be simply generalized to today’s LGBQQ youth (Savin-Williams, 2005). For example, youth are identifying their sexual orientation at younger ages today (D’Augellie, 1998; Savin-Williams, 2005). Additionally, the proposed study looked at questioning youths’ school attendance, as there is no documentation in the literature of its exploration in a high school population. Concern for school attendance stems from the fact that it can jeopardize a student’s educational achievement, risking her/him dropping out of high school.

Although adolescence is a time of experimentation for all youth, Little articulates that, “there is an ever prevalent concern that Queer youth are using substances to escape, to numb, and to cope” (2001, p. 103). Garofalo and colleagues (1998) found that lesbian, gay, and bisexual youth were more likely to have missed school for fear of their safety and to have used inject-able drugs more than their heterosexual peers. Similarly, Orenstein (2001) articulated that youth with consistent homosexual preferences had higher levels of substance use than youth with less consistent gay identities and youth with heterosexual identities. Also, Orenstein concluded that the differences by sexual preference are larger for the use of “hard” drugs, like Cocaine and LSD, than for marijuana and alcohol. Although lesbian, gay, bisexual, and unsure youth are considered higher risk populations (Rosotosky, Owen, Zimmerman, & Riggle, 2003), no study to date has specifically investigated whether the availability of a supportive adult at school
is related to lesbian, gay, bisexual, and unsure youth skipping school and engaging in substance abuse at school. One of the goals of this study was to find out whether lesbian, gay, bisexual, and unsure students’ perceptions of adult support at school could influence their substance use/abuse.

*LGBQQ Youths’ Relationships with Adults at School: An Opportunity for Change*

Several studies have shown that lesbian, gay, bisexual, and unsure youth report poor relationships with teachers (see Rostosky et al., 2003; Russell et al., 2001). Using a 17-item open-ended questionnaire answered by 120 lesbian and gay youth, Telljohann and Price (1993) concluded that the respondents seemed to lack support from school counselors and teachers although the respondents claimed that the teachers’ and counselors’ reactions were positive. When asked what schools could do to make their life at school better, most participants recommended that homosexuality be discussed, that teachers treat the topic of homosexuality with respect, and that counselors be more available. Also, the respondents wanted more care and understanding of homosexuals, a stop to “gay put-downs,” and a creation of support groups. Although a positive reaction by school adults to a student’s disclosure about her/his sexuality is necessary, it is not sufficient. As discussed earlier, to belong youth need to feel that they are valued. The recommendations of the respondents in the Telljohann and Price study could have been their way of expressing their need to be valued.

Academic difficulties, substance abuse, running away from home, emotional distress, risk behavior, school dropout, and suicidality are all negative outcomes that research, concerned with the lives of LGBQQ youth, have examined in depth for over three decades (Russell, 2005). Given these existing circumstances, Russell poses an
important question: "are there any examples of protective factors or even of resilience among sexual minority students" (p. 12)?

Although homophobia is what creates the challenges for LGBQQ youth, the risks they face have been constantly and predominantly approached as a characteristic of the LGBQQ youth rather than qualities that are characteristic of the youth’s experiences and context (Russell, 2005). Various researchers have recently called for a change in direction and have pressed for an examination of school contexts and characteristics, which promote the well-being of LGBQQ youth (e.g., Elze, 2005; Goodenow, et al., 2006; Little, 2001; Russell, 2005; Savin-Williams, 2005). Murdock and Bolch (2005), for example, discovered that teacher support and a school climate that accepted LGB youth promoted LGB youth’s sense of school belonging. However, Murdock and Bolch recruited participants through a local organization that provides services for lesbian, gay, and bisexual youth, advertisements in places which LGB teen frequently visit, referral through present participants, and presence at lesbian, gay, bisexual events. The intended study’s participants are adolescents enrolled in public high schools in British Columbia. Consequently, one of the advantages of the present study is that it involves adolescents who do not necessarily have networks of support outside high school and support at school could be the only type of support available for these youth. Also, the proposed study seeks to examine the safety of the youth at school, and their experiences with different types of victimization in addition to their perceived sense of belonging.

Using the first nationally representative US adolescent sample with information on same-sex romantic attraction, Russell et al. (2001) concluded that lesbian, gay, and bisexual youth with favorable feelings towards their teachers were least likely to
encounter the spectrum of school troubles and, therefore, teachers should be provided with the help they need in being supportive of this group of youth. In addition, engaging in school troubles could be one way for lesbian, gay, bisexual, and unsure students to manifest their need for support, skipping school could be another one. As stated earlier, the present study aims at finding out whether adult support does predict students’ avoiding classes all day.

Goodenow et al. (2006) found that youth who sensed that there was a school staff member who can be approached about a problem were less likely to have multiple suicide attempts and to be threatened or injured with a weapon. Also, Goodenow et al. (2006) looked at the relationship between school characteristics and LGB youth sense of safety at school. The school characteristics the researchers included in the study were school district (urban, suburban, or rural), average student population, average percent of low-income students in school, average percent of ethnic minority in the school, and availability of support groups for LGB youth but it did not include the availability of adult support at school in particular. A sense of safety at school comprises a student feeling relaxed and not concerned about something bad happening to her/him.

Goodenow and colleagues (2006) explained that LGB students felt safer in schools that provided some form of support groups, claiming that their study was the first to examine school characteristics and the safety of LGB youth. Although support groups could be very helpful, not all schools have them. Therefore, does having that supportive figure predict their sense of safety at school? How does the availability of adult support at school moderate their reports of sexual orientation victimization in particular? A sense of school belonging involves attachment and safety. One of the aims of the proposed study
was to investigate specifically the role of supportive adults in promoting LGBQ youth sense of safety at school because, as mentioned earlier, not all schools have support groups. Accordingly, the present study focuses on the role of supportive adults at school in predicting the LGBQ youth sense of safety. Consequently, this study expands on the limited yet needed literature by looking at the various types of harassment separately, and safety of LGBQ students and specifically the role of adults at school. Moreover, this study included unsure students, who were not part of the Goodenow et al. study.

Public education is free and available for every child in Canada (http://www.cic.gc.ca/ENGLISH/newcomer/fact_education.html) and school is compulsory until the ages 16-18 (http://www.educationcanada.emec.ca/EN/EdSys/over.php). Given that academic learning is a social experience, which is grounded in relationships (Goodenow, 1993; Hymel, Schonert-Reichl, & Miller, 2006, Osterman, 2000), when LGBQQ students dropout of high school for fear of their safety and/or lack of school belonging, it is their environment that has deprived them of realizing one of their most basic rights. Also, as stated earlier (D’Augelli et al., 2002; DuRant et al., 1998; Garofalo et al., 1998), victimization leads LGB youth to skip school, thus putting them at risk of eventually dropping out of high school. However, no study to date has examined whether having a supportive adult at school could modify the relationship between the victimization of LGBQ youth and school absenteeism. This issue was a primary focus of this study.
Statement of the Problem

As observed, the victimization of LGBQQ youth is well supported in the literature and so is the importance of one’s sense of school belonging, which is represented through relationships with peers and teachers. To belong, all students need to feel that they are cared for and safe in their school. Silencing their need to belong and fearing for their safety at school, some LGB revert to skipping school (Goodenow et al., 2006), using/abusing substances (Garofalo et al., 1998; Jordan, 2000; Rostosky et al., 2004) and engaging in violence (Goodenow et al., 2006). In response to the recent call for change in research on the school experiences of LGBQQ youth, the proposed study aims to extend the literature on the role of positive school context characteristics, with a particular focus on the role of adults at school. Although the extant literature on the negative aspects of the lives of LGBQQ youth is abundant, there is a dearth of information on what promotes their well being in school. This study investigated the role of supportive adults at school in relation to multiple experiences that LGBQQ have at school; thus making it possible to determine whether there are consistent positive or negative experiences depending on perceptions of adult support.

The research literature on the experiences of Canadian LGBQ youth in particular is limited (e.g. Canadian studies: Busseri et al. 2003; Williams et al., 2005). In this regard, the present study was particularly meaningful to British Columbia, the only province in Canada that has social responsibility as one the province’s foundational skills, along with reading, writing and mathematics (http://www.bced.gov.bc.ca/perf_stands/social_resp.htm).
Research Questions

1) Do youth with different sexual orientations differ in their school experiences, including perceptions of school safety, skipping school, belonging, adult support, bullying/victimization, sexual orientation-based discrimination, learning about people of various sexual orientations, as well as risk behaviors such as reported substance abuse and violence?

The extant literature on the experiences of LGBQQ youth at school shows that the youth report a number of negative experiences (Goodenow et al., 2006; Little, 2001; Pilkington & D’Augelli, 1995; Rusell, 2005; Russell et al., 2001; Williams et al., 2005). Similarly, in the present study it was expected that the experiences of Canadian LGBQ sample would be similar to the experiences reported previously by their age mates in other countries. Of additional interest were the reported experiences of youth who are unsure of their sexual orientation, an area for which there is a dearth of information (Williams et al. 2005). In addition, it is worthwhile to look at how youth of different sexual orientations differ from one another or not because, as Busseri et al. (2006) noted, one cannot assume that lesbian, gay, bisexual and unsure youth are the same.

2) Is the perception of adult support at school related to lesbian/gay, bisexual, unsure, and straight students’ perceptions of safety at school, skipping school, school belonging, bullying/victimization, sexual orientation-based discrimination, learning about different sexual orientations, as well as risk behaviors such as reported substance abuse and violence? How do adults perceptions differ among lesbian/gay, bisexual, unsure and straight youth in their relationships to the above-mentioned variables?
Several recent studies have shown that LGBQQ youth who perceived adults as supportive at school expressed more favorable views towards their school experiences (Goodenow et al., 2006; Murdock & Bolch, 2005). The purpose of this question was to find out whether there was a significant relationship between adult support and various school experiences, including belonging, victimization, skipping school, and safety at school. Significant relationships were expected to varying degrees, between adult support and the other variables. The purpose of this question was to set the stage for more in-depth questions about the role of adult support.

3) How are perceptions of safety at school skipping school, sense of belonging at school, the various forms of victimization, substance use, engagement in violence, and learning about people of different sexual orientations related to different levels of perceived adult support for LGBQ youth?

Goodenow et al. (2006) showed that teacher support predicted more safety at school and lower levels of student victimization; however, the authors articulated it was impossible to know whether the participants were reporting sexual orientation victimization in particular. The researchers asked students to report whether they had teacher support or not. The present study extends the literature by looking at the differences among different levels of perceived adult support, with interest in determining whether significant differences were present among students who disagreed on the availability of support, students who were undecided about the availability of adult support, and students who agreed on the availability of adult support. Several studies found that adult support is linked to LGBQ youths' adjustment at school.
(see Murdock & Bolch, 2005; Rostosky et al., 2003). The present study examined how different levels of perceived adult support were linked to LGBQ youths’ sense of school belonging.

Garofalo et al. (1998) found that LGBQQ youth were more likely to miss school for fear of their safety than heterosexual youth. However, no study to date has shown how the availability of a supportive adult could contribute to LGBQQ youth school attendance. It was anticipated that students who agreed on the availability of adult support at school, would report higher levels of school attendance.

In an article that calls for looking at resilience in the lives of lesbian, gay, bisexual and questioning (among others, like transgendered youth) teens, Russell (2005) asserts that a small and growing body of literature is emerging and taking the field towards more unique risk and protective factors unique for LGBQQ youth. One of these factors involves victimization based on sexual orientation specifically. Sexual orientation victimization has been linked to various negative consequences, ranging from distress to suicidality (see D’Augelli et al., 2002; Remafedi, 1987; Russell, 2005). This question aims at finding out whether adult support at school could be protective factor for LGBQQ youth by linking it to sexual orientation victimization, a risk factor unique to LGBQQ youth or youth perceived as LGBQQ. Physical, verbal, and social victimization were also examined in order to gain a more comprehensive look at the various forms of victimization and their relations to different levels of adult support at school.

Despite the fact that adolescence is a time of experimentation and stress for youth, LGBQQ have the additional stress of being members of societies and institutions which are prevalently homophobic and heterosexist (Jordan, 2000). Therefore, the reasons for
substance use could be these teens’ way of finding relief for feelings of isolation (Jordan, 2000). The purpose of this question was to find out whether having a supportive adult at school plays a role in LGBQ youth frequency of substance use. Jordan (2000) affirms that the school setting is a unique environment for helping youth at risk yet no study to date has looked at whether adult support at school could play a protective role.

Engagement in violence was also examined in order to find out whether different levels of adult support were linked to LGBQ youths’ engagement in violence.

4a) Do perceptions of adult support at school predict LGBQ feelings of safety at school above and beyond sense of support from the family and connectedness with peers?

Although parents and peers, through connectedness and acceptance, are a major source of safety, LGBQQ youth who also feel they have support from teachers would be expected to report a greater sense of safety at school. In some cases, teacher support could buffer a student who is not supported by her/his family or peers. If adults at school can play this important role, then more attention can be paid into how they can change things for LGBQQ youth in the school. Also, Telljohann and Price (1993) indicate that LGB youth usually need a sympathetic other especially if they risk losing their parents and peers due to their sexual orientation. It was expected that adult support at school would contribute to LGBQ sense of safety at school above and beyond support from parents and acceptance from peers.

4b) Do perceptions of adult support at school predict LGBQ youth sense of belonging at school above and beyond sense of support from the family and connectedness with peers?

Because school belonging is represented through student-student relationships and student-teacher relationships (Zins et al., 2004), the purpose of this question was to
confirm that perceived adult support can play a role in explaining LGBQ youth sense of
school belonging above and beyond perceptions of family support and peer care. It was
anticipated that adult support would have a significant role because research shows that
for youth at social risk, having an adult can make a big difference (Croninger & Lee,
2001). In an ethnographic study, Schlosser (1992) concluded that it was more likely for
students at risk for dropping out to continue high school if they had teachers who stressed
a sense of school belonging.

5) For LGBQ youth, does the perception of adult support moderate the relationship
between SOB and skipping school?

Unfortunately, for LGBQ adolescents peer victimization at school could lead
them to skip school. The link between their experiences with victimization has been
established in various studies (D'Augelli et al., 2002; DuRant et al., 1998; Garofalo et al.,
1998). However, no study to date has looked at how perceptions of adult support could
modify the relationship between LGBQQ sexual orientation victimization and school
attendance. This study sought to explore whether supportive adults can actually play role
in the relationship between LGBQ sexual orientation victimization and them skipping
school.
Chapter 3
Methodology

Participants

Data for this study were collected from all 18 secondary schools by the school district. Parents were informed of the survey through Parent Advisory Council meetings, school newsletters (translated into four languages), and electronic announcements. Parents were also informed that the school board was cooperating with researchers from the University of British Columbia and the University College of the Fraser Valley for the analysis of the data. To maintain confidentiality and anonymity of respondents, participants were instructed not to print their names on any part of the survey. In order to permit future longitudinal analyses of the data from this survey with later administrations, while respecting privacy and confidentiality, the survey included a self-created “privacy code” which could be recreated by respondents in future administrations of the survey. The present author had no access to any identifying information collected from the students, including the “privacy code”.

A total of 19,551 students (9622 females, 9545 males) students from 8th grade through 12th grade completed the survey in a one-hour period during school hours. All students present on the testing day participated. The number of students enrolled was almost equal across all grade levels, ranging from 19.1% to 20.8%. Respondents reported a variety of ethnic backgrounds; reflecting the diversity of the district’s population: Asian (55.6%), Caucasian (19.3%), Mixed Ethnicity (9.1%), South Asian (7.1%), Latin American (2.5%), Middle Eastern (1.6%), Aboriginal (1.5%), and
African/Caribbean (1.1%), although 2.3% of the respondents did not know their ethnic background and 1.9% not answering the question.

The present study was primarily concerned with students who identified their sexual orientation as gay/lesbian, bisexual, straight, or unsure. Specifically, students responded to a single question, “What do you consider your sexual orientation to be?”, with four response alternatives, lesbian/gay (LG), bisexual (B), straight (S), and unsure (Q). A total of 18,832 students (96.3%) reported their sexual orientation. Table 1 presents the numbers and percentages of students who identified themselves within each sexual identity category. Despite the proliferation of empirical research on lesbian, gay, bisexual, and questioning youth, most of the existing studies have approached LGBQQ youth who are members of targeted organizations and have relied on small convenience samples, case examples, and reflections of LGBQQ adults (Russell et al., 2001). One of the benefits of the present data set was its inclusion of all the students attending the school district’s 18 secondary schools, with an overall sample size of 19,551 students participating (81% of the total possible sample).
Table 1

Numbers and Percentages of Reported Sexual Orientation

<table>
<thead>
<tr>
<th>Sexual Orientation</th>
<th>Number</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gay/Lesbian</td>
<td>236</td>
<td>1%</td>
</tr>
<tr>
<td>Bisexual</td>
<td>592</td>
<td>3%</td>
</tr>
<tr>
<td>Straight</td>
<td>16578</td>
<td>88%</td>
</tr>
<tr>
<td>Unsure</td>
<td>1426</td>
<td>8%</td>
</tr>
<tr>
<td>Total</td>
<td>18832</td>
<td>100%</td>
</tr>
</tbody>
</table>

For some analyses, self-identified bisexual, unsure and straight students were matched with each of the 236 lesbian and gay students, in terms of school, grade and gender, yielding a final matched sample of 170 students in each of the four sexual orientation categories. A matched sample was used in order to obtain equal cell sizes and consequently making it optimizing a statistical comparison of the means among lesbian/gay, bisexual, unsure, and straight students.

Procedures

As part the BC’s Ministry of Education mandate for school accountability, the participating school district developed an extensive student survey on school safety and social responsibility that provided “baseline” information for administrators and staff about the experiences that students face in their high schools. Specifically, the survey was developed by a committee established by the school district, including members of the district’s “Social Responsibility and Diversity” team plus principal, vice principal, or counselor representatives from several secondary schools as well as outside consultants,
Dr. Terry Waterhouse (University College of the University Valley) and Dr. Shelley Hymel (University of British Columbia). After examining a broad range of measures, the school district’s representatives developed items that reflected what they wanted to learn about their secondary students’ social experiences, in an effort to evaluate the district’s mandate to promote social responsibility and school safety. The survey covered a broad spectrum of issues; students provided extensive background information (sex, grade, race/ethnic background, sexual orientation, etc. and were asked to report about their experiences with racism, sexual orientation discrimination, bullying and victimization, sexual harassment, school climate and belonging with peers, the availability of caring adults, as well as experiences with substance use and violence.

The district collected this data in January/February 2006 and plans to administer the survey over the next ten years (every 2-3 years) in an effort to monitor changes in social responsibility, youth behaviors, and school aggression. Permission to use these data secondarily has been provided by the school district and ethics approval was obtained from the UBC Behavioral Research Ethics Board.

A description of the items and measures obtained from the district survey and used in the present study is provided below.

Measures

For the purposes of the present study, a subset of items and measures included in the survey were utilized. Specifically, self-report, paper-and-pencil measures tapping nine different areas were considered: perceptions of safety at school, skipping school, adult respect and recognition, school belonging, family support, victimization (and sexual orientation victimization), substance use, violence and exposure to diversity.
**Perceptions of Safety**

Students’ perceptions of felt safety were assessed using four items that asked students about feelings of safety (a) at school, (b) at school events and activities, (c) on the way to and from school, and (d) in the neighborhood or community. Safety was defined for the students as “feeling comfortable, relaxed, and not worried that something bad could happen to you”. For each context, students responded on a five-point scale: 1=never, 2=hardly ever, 3=some of the time, 4=most of the time, and 5=always. For the present study, only the first safety item, addressing felt safety within the school context, was used. The higher scores on this item reflected greater feeling of safety within the school context.

**Skipping School All Day**

A single, self-report item was used to evaluate the frequency with which students skipped school. Specifically, responses to the question, “How often have you skipped all day?” were indicated on a five-point scale (1=never, 2=at least once this school year, 3=almost once per month, 4=almost once per week, 5=more than once per week), with higher scores reflecting greater frequency of skipping school.

**Adults Respect and Recognition**

Student perceptions of the degree to which they felt recognized and respected by adults within the school were assessed using a seven-item composite created by the district for this survey and verified through factor analysis of student responses. Particularly, students were asked to indicate on a five-point scale the degree to which they agreed or disagreed (strongly disagree, disagree, undecided, agree, strongly agree), with each of the seven items:
• The adults at my school treat students fairly.
• My ideas and opinions are important to at least one adult in my school.
• I can get extra help from adults at my school if I need.
• My feelings are recognized by at least one adult at my school.
• Adults in my school respect me.
• Adults in my school really care about students.
• There is an adult in my school I can go to for support or advice or talk to about my problems.

Student responses to these seven items were averaged to create an overall index of adult respect and recognition ($\alpha = 0.84$), with high scores indicating stronger perceptions of adult support.

In two of the research questions, one item was only used from the scale: adults in my school really care about my students, rather than the entire scale to avoid certain potential statistical violations.

**Peer Belonging**

Students’ sense of belonging with peers at school was tapped through a six-item composite created by the district for this survey and supported through a factor analysis of student responses. Students were asked to decide on a five-point scale the degree to which they agreed or disagreed (strongly disagree, disagree, undecided, agree, strongly agree), with each of the six items:

• I feel awkward and out of place at my school. (reverse-scored)
• I feel like I belong at my school.
- Other students at my school accept me as I am.
- When I have a problem, there are students who will help me.
- Students at my school really care about each other.
- Students in my school are just looking for themselves. (reverse-scored)

Before averaging students’ responses to these six items ($\alpha = 0.76$), two questions (as indicated above) were reverse scored. Consequently, for all items higher scores entailed stronger perceptions of sense of belonging among peers.

In two separate research questions, only 2 items of the scale were used: I feel like I belong in school and Students at my school really care about each other, in order to avoid potential statistical violations.

*Family Support*

A single, self-report item was used to evaluate the degree to which students perceived the availability of a supportive adult in the family, “There is an adult in my family that I can go to for support or advice or talk to about my problems and worries”. Students indicated their perceptions based on a five-point scale ranging from strongly disagree to strongly agree (strongly disagree, disagree, undecided, agree, strongly agree), with higher scores reflecting stronger perceptions of family member support.

*Victimization*

Students reported the frequency of their experiences with victimization through three different items: (a) physical bullying (shoving, pushing) to me, (b) verbal bullying (name calling, threats) to me, and (c) social bullying (gossip, exclusion) to me. Each item was evaluated separately in the study. Participants’ responses indicated the frequency of their experience on a four-point scale: 1=never, 2=once or a few times,
3=about once a month, 4=every week or more. Higher scores reflected higher frequency of victimization.

Students were asked to assess how often they experienced sexual orientation victimization through a seven-item scale ($\alpha=0.93$). The items included questions that asked to students to report how often they have had experience with being victims of someone at school: (a) saying negative things or teasing one’s sexual orientation, (b) making one feel bad about their sexual orientation, (c) telling jokes about one sexual orientation, (d) using swear words when mentioning lesbians and gays, (e) telling others that people of certain sexual orientations are dangerous, (f) treating someone’s sexual orientation as inferior, and (g) excluding someone because of their sexual orientation. Participants’ responses indicated the frequency of their experience on a four-point scale: 1=never, 2=once or a few times, 3=about once a month, 4=every week or more. Higher scores reflected higher frequency of victimization.

**Substance Use/Abuse**

Participants reported how often they consumed alcohol and drugs at school in the past year by answering twelve questions on substance use. The school board wanted to find out how frequent substance use was among youth. A composite was created by averaging the twelve questions ($\alpha=0.95$):

- How often have you consumed alcohol?
- How often have you consumed more than five alcoholic beverages?
- How often have you been under the influence of alcohol?
- How often have you used marijuana?
- How often have you used ecstasy?
- How often have you used hallucinogens?
- How often have you used inhalants?
- How often have you used prescription pills that were not prescribed by the Dr.?
- How often have you used marijuana?
- How often have you used crystal meth?
- How often have you used cocaine?
- How often have you used heroin?
- How often have you been “high” because you used any of the drugs listed above?

Students had to decide how frequently they consumed substances by answering a three-point item scale: 1=never, 2=once or a few times, and 3=every week or more. Higher scores indicated higher frequencies of substance use at school.

*Engagement in Violence*

Students reflected on the frequency of their engagement in different forms of violence at school through a three-item scale. Students had to report how often they engaged in: (a) physical violence, (b) threatening someone with physical violence, (c) carried a weapon, (d) threatened someone with a weapon, and (e) engaged in physical violence with a weapon on a three-point scale: 1=never, 2=once or a few times, 3=every week or more. Student responses were averaged (α=0.83) with higher scores pointing towards higher engagement in violence at school.
Exposure to Diversity

A one-item self-report asked students to report the extent to which they learned about people of different sexual orientations the past school year, specifically: “at my school this year, we learn about people of various sexual orientations. The five-point scale was: 1=never, 2=hardly ever, 3=some of the time, 4=most of the time, 5=always, with higher scores reflecting higher frequency of learning about people of different sexual orientations.
Chapter 4

Results

Data Screening

Before analyses, missing data, outliers, and the statistical assumptions relevant to univariate and multivariate analyses were examined. Missing data were handled through the complete case approach, which entails the inclusion of only the observations with complete data (Hair, Black, Babin, Anderson, & Tatham, 2006). Furthermore, Hair and his colleagues propose that variables with as little as 15% missing data are candidates for omission. The average missing values of all variables included for the study was 3%. The variable with the highest missing values was “we learn about people form various sexual orientations” (9%).

Boxplots of all variables for the entire sample were checked in order to identify outliers. Despite the presence of outliers for most variables, they were included in the analyses. Hair et al. (2006) assert that outliers cannot be simply categorized as either useful or problematic rather they must be inspected within the context of the analyses and appraised depending on the kind of information they might offer. For this study, deleting outliers based on the boxplots would have entailed discarding the views of one of the students who self-identified as lesbian, gay, bisexual or unsure, whose experiences are central to the study. Thus, outliers were not deleted in this study.

Although normality was violated for several variables, data was not transformed for two reasons. First, for most variables, transformation did not improve their skew or kurtosis. Second and more importantly, given that the initial sample in this study is large, variables with statistically significant skewness and kurtosis do not depart enough from
normality to cause a substantive difference in analysis (Tabachnick & Fidell, 2006). Also, power was not compromised due to the large sample size.

Although no test can absolutely determine independence among observations, in this study it was not a concern. Moreover, Hair et al., (2006) suggest that when dependence is a concern, the researcher uses a significance level of 0.01 or lower. In most of the analyses the alpha level was equal to 0.01.

Bivariate scatter plots were used to assess linearity. Examination of the scatter plots revealed no curvilinear relationships. Even though heteroscedasticity was observed in ANOVA, data was not transformed because the groups had approximately equal sample sizes (see Hair et al., 2006). Multicollinearity was assessed with bivariate correlations and was not found to be problematic.

The Statistical Package for Social Sciences, version 13 (SPSS 13) was the software used to analyze the data in this study.
Table 2

Means and Standard Deviations of the Study's Entire Sample (N = 19,551) and Matched Sample (N = 680) for All Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Overall Sample</th>
<th>Matched Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Safety at school</td>
<td>4.06 (0.95)</td>
<td>3.64 (1.32)</td>
</tr>
<tr>
<td>Skipped school all day</td>
<td>1.42 (0.89)</td>
<td>1.86 (1.32)</td>
</tr>
<tr>
<td>Adults respect and recognition (composite, α=0.84)</td>
<td>3.45 (0.74)</td>
<td>3.22 (0.95)</td>
</tr>
<tr>
<td>Adults in my school care about students</td>
<td>3.35 (0.93)</td>
<td>3.15 (1.08)</td>
</tr>
<tr>
<td>Peer belonging (composite, α=0.76)</td>
<td>3.54 (0.66)</td>
<td>3.24 (0.81)</td>
</tr>
<tr>
<td>I feel like I belong at school</td>
<td>3.49 (1.02)</td>
<td>3.15 (1.22)</td>
</tr>
<tr>
<td>Students at my school care about each other</td>
<td>3.26 (1.00)</td>
<td>3.06 (1.15)</td>
</tr>
<tr>
<td>There is an adult in my family I can go to for support</td>
<td>3.89 (1.15)</td>
<td>3.48 (1.41)</td>
</tr>
<tr>
<td>Physical bullying to me</td>
<td>1.28 (0.61)</td>
<td>1.55 (0.94)</td>
</tr>
<tr>
<td>Verbal bullying to me</td>
<td>1.71 (0.86)</td>
<td>1.94 (1.07)</td>
</tr>
<tr>
<td>Social bullying to me</td>
<td>1.59 (0.81)</td>
<td>1.87 (1.07)</td>
</tr>
<tr>
<td>Sexual orientation victimization (composite, α=0.93)</td>
<td>1.12 (0.42)</td>
<td>1.51 (0.91)</td>
</tr>
<tr>
<td>Substance Use (composite, α=0.95)</td>
<td>1.07 (0.26)</td>
<td>1.24 (0.54)</td>
</tr>
<tr>
<td>Engagement in violence (composite, α=0.81)</td>
<td>1.15 (0.31)</td>
<td>1.32 (0.55)</td>
</tr>
<tr>
<td>Learn about people of different sexual orientations in the past year</td>
<td>2.82 (1.23)</td>
<td>2.63 (1.28)</td>
</tr>
</tbody>
</table>

Differences in means and standard deviations observed between the entire sample and matched sample is attributed to discarding most of the students' reports to create the matched sample.
Data Analyses

Differences among Lesbian/Gay, Bisexual, Straight and Unsure Youth

To evaluate whether the experiences of this study’s LGBQ youth are similar to the documented experiences of LGBQ youth in other studies, initial analyses focused on documenting the differences in social experiences among lesbian, gay, bisexual, unsure, and straight youth. To this end, self-identified bisexual, unsure and straight students were matched with each of the 236 lesbian and gay students, in terms of school, grade and gender, yielding a final matched sample of 170 students in each of the four sexual orientation categories and these groups were compared using analyses of variance (ANOVAs). Despite omitting the experiences of large numbers of the respondents, a matched sample of groups with equal sample sizes optimized statistical comparison of reported means among lesbian/gay, bisexual, unsure, and straight youth.

Specifically, a series of 4 (sexual orientation group) by 2 (gender) ANOVAs were conducted, examining group and sex differences for each of the 12 dependent variables: student’s reported safety at school, school skipping, adult support and recognition, sense of belonging (composite), family support, physical victimization, verbal victimization, social victimization, sexual orientation victimization (composite), substance use (composite), engagement in violence (composite), and learning about people of different sexual orientations. Given the number of ANOVAs conducted, alpha levels were adjusted from 0.05 to 0.0042, using the Bonferroni correction (0.05 alpha level−12).

1Following Huberty and Morris (1989), analyses of variance were conducted rather than multivariate analyses of variance given interest in group differences for each of these dependent variables.
The results of the 2×4 ANOVA for perceived safety at school indicated significant differences among lesbian/gay, bisexual, unsure, and straight students, $F(3, 666) = 23.71$, $p < 0.0042$, (partial eta square, $\eta_p^2 = 0.10$). There were no gender differences and no significant interaction between sexual orientation and gender. Post-hoc analyses, using Scheffe’s test, revealed that lesbian/gay youth reported significantly lower feelings of safety at school relative to bisexual, straight, or unsure youth. The latter three groups did not differ significantly from one another in terms of perceived safety at school. Relevant means and standard deviations for this analysis are present in Table 3, with significant group differences, as indicated in post-hoc analyses, signified by different subscripts.

With regard to self-reports of skipping school all day, results of a 2×4 ANOVA showed significant differences between lesbian/gay, bisexual, unsure and straight students, $F(3, 662) = 23.58$, $p < 0.0042$, $\eta_p^2 = 0.10$, with no significant main affects or interactions with sex. Post-hoc analyses (Scheffe) showed that lesbian/gay youth reported significantly higher frequencies of skipping school in comparison to bisexual, straight, or unsure youth. However, there were no group differences between bisexual, straight, and unsure youth in terms of skipping school, as indicated in Table 3.

Results of the two-way ANOVAs showed significant in student perceptions of adult respect and recognition among LGBQ and straight students, $F(3, 667) = 11.80$, $p < 0.0042$, $\eta_p^2 = 0.05$, with no significant gender differences or interactions. As presented in third row of Table 3, post-hoc analyses (Scheffe) showed that lesbian/gay youth reported more negative perceptions of adult respect and recognition than did bisexual, unsure, or straight youth, with no significant differences between the three latter groups.
Similarly, significant differences were observed in student feelings of belonging among LGBQ youth and straight youth, $F(3, 665) = 17.69, p < 0.0042, \eta_p^2 = 0.07$, with no main effects of sex nor sex by group interactions. Post-Hoc analyses, using Scheffé’s test, demonstrated that lesbian/gay youth reported significantly lower feelings of belonging at school, as compared with bisexual, unsure, and straight youth, who did not appear to be statistically different from one another (see row 4 in Table 3).

Significant differences were also found in students’ perceptions of having a family member to whom they can go to for support and advice among lesbian/gay, bisexual, unsure, and straight youth, $F(3, 647) = 11.24, p < 0.0042, \eta_p^2 = 0.05$, with no main effects of sex neither sex by group interactions. Post-hoc analyses (Scheffe), illustrated that lesbian/gay youth reported significantly lower family support relative to unsure and straight youth. There were no significant differences between lesbian/gay youth and bisexual youth. Also, there were no differences between bisexual youth and unsure and straight youth (see row 5 in Table 3).

To examine the differences among LGBQ and straight students’ report of physical, verbal, social, and sexual orientation victimization, a series of four $2 \times 4$ ANOVA tests were conducted, one for each type of victimization. The results demonstrated significant differences among the four identified sexual orientation groups for each type of victimization: physical victimization, $F(3, 642) = 22.82, p < 0.0042, \eta_p^2 = 0.10$, verbal victimization, $F(3, 635) = 16.94, p < 0.0042, \eta_p^2 = 0.07$, social victimization, $F(3, 637) = 15.16, p < 0.0042$ and $\eta_p^2 = 0.07$, and victimization based on sexual orientation, $F(3, 643) = 51.53, p < 0.0042, \eta_p^2 = 0.19$, with sexual orientation victimization showing the
largest effect size. For all tests, there were no significant sex main effects or sex by sexual orientation interactions. As illustrated in rows 6-9 on Table 3, results of the post-hoc analyses (Scheffe) indicated that lesbian/gay youth reported significantly more verbal and social victimization than did unsure and straight youth, but did not differ significantly from bisexual youth in terms of verbal and social victimization. Bisexual youth, in turn, reported significantly more verbal victimization than straight youth, but did not differ significantly from lesbian/gay or unsure youth in this regard. For physical victimization and sexual orientation victimization, results of post-hoc analyses (Scheffe) revealed that lesbian/gay youth reported significantly more victimization than did bisexual, unsure, or straight youth, and that bisexual youth reported significantly more victimization than straight youth but did not differ from unsure youth in terms of physical or sexual orientation victimization.

Results of the two-way ANOVA demonstrated significant group differences in reported substance use, \( F(3, 617) = 23.92, p < 0.0042, \eta^2_p = 0.10 \), although this effect was qualified by a significant sex by sexual orientation interaction, \( F(3, 617) = 6.47, p < 0.0042, \eta^2_p = 0.03 \), the main effect for sex was not significant. As shown in row 10 of Table 3, post-hoc analyses conducted to evaluate the main effect observed for sexual orientation group revealed that gay/lesbian youth reported significantly more substance use than did bisexual, unsure, or straight youth, with no significant differences between the three latter groups. Follow-up post-hoc analyses (Scheffe) were also conducted separately within each sex in order to evaluate the significant sex by group interaction. Results indicated no significant differences among gay, bisexual, unsure or straight males. However, significant differences were observed between lesbian youth and
bisexual, unsure and straight youth. There were no significant differences between female bisexual, unsure, or straight youth.

Results of the $2 \times 4$ ANOVA conducted for engagement in violence also indicated significant differences across sexual orientation groups, $F(3, 631) = 17.80, p < 0.0042$, $\eta^2 = 0.08$. The sex main effect and the sex by sexual orientation interaction were not significant for this analysis. Post-hoc analyses (Scheffé) as illustrated in row 11 of Table 3, indicated that lesbian/gay youth reported significantly more violence than did bisexual, unsure, or straight youth, with no differences among the latter three groups.

Finally, results of the two-way ANOVA conducted for perceptions of learning about different sexual orientations, revealed no significant differences as functions of either sex or sexual orientation group and no sex by group interaction. Thus, lesbian/gay youth, bisexual, unsure, and straight boys and girls reported similar perceptions of the extent to which they learn about people of different sexual orientations.
Table 3

Variations in Social Experiences across Matched Sexual Orientation Groups (N=170 per group)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Lesbian/Gay</th>
<th>Bisexual</th>
<th>Unsure-Questioning</th>
<th>Straight</th>
<th>Post Hocs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td></td>
</tr>
<tr>
<td>1. Safety at school*</td>
<td>3.02 (1.62)</td>
<td>3.65 (1.24)</td>
<td>3.70 (1.19)</td>
<td>4.16 (0.90)</td>
<td>L/G &lt;B,Q,S*</td>
</tr>
<tr>
<td>2. Skipped school all day*</td>
<td>2.51 (1.63)</td>
<td>1.85 (1.23)</td>
<td>1.62 (1.15)</td>
<td>1.45 (0.91)</td>
<td>L/G &gt; B,Q,S*</td>
</tr>
<tr>
<td>3. Adults respect and recognition (α=0.84)*</td>
<td>2.88 (1.12)</td>
<td>3.33 (0.90)</td>
<td>3.25 (0.87)</td>
<td>3.44 (0.77)</td>
<td>L/G &lt;B,Q,S*</td>
</tr>
<tr>
<td>4. Peer belonging (α=0.76)*</td>
<td>2.93 (0.89)</td>
<td>3.24 (0.79)</td>
<td>3.25 (0.77)</td>
<td>3.55 (0.65)</td>
<td>L/G &lt;B,Q,S*</td>
</tr>
<tr>
<td>5. There is an adult in my family I can go to for support*</td>
<td>2.99 (1.53)</td>
<td>3.51 (1.38)</td>
<td>3.60 (1.32)</td>
<td>3.83 (1.26)</td>
<td>L/G &lt;Q,S*</td>
</tr>
<tr>
<td>6. Physical bullying to me*</td>
<td>2.00 (1.22)</td>
<td>1.58 (0.92)</td>
<td>1.45 (0.83)</td>
<td>1.20 (0.50)</td>
<td>L/G &gt; B, Q, S*</td>
</tr>
<tr>
<td>7. Verbal bullying to me*</td>
<td>2.37 (1.24)</td>
<td>2.04 (1.07)</td>
<td>1.80 (1.00)</td>
<td>1.59 (0.77)</td>
<td>L/G &gt; Q, S*</td>
</tr>
<tr>
<td>8. Social bullying to me*</td>
<td>2.28 (1.27)</td>
<td>1.97 (1.03)</td>
<td>1.70 (0.96)</td>
<td>1.56 (0.85)</td>
<td>L/G &gt; Q, S*</td>
</tr>
<tr>
<td>9. Sexual orientation victimization (composite, α=0.93)*</td>
<td>2.15 (1.15)</td>
<td>1.51 (0.84)</td>
<td>1.29 (0.75)</td>
<td>1.11 (0.36)</td>
<td>L/G &gt; B, Q, S*</td>
</tr>
<tr>
<td>10. Substance Use (composite, α=0.95)*</td>
<td>1.52 (0.75)</td>
<td>1.26 (0.53)</td>
<td>1.15 (0.39)</td>
<td>1.07 (0.26)</td>
<td>L/G &gt; B, Q, S*</td>
</tr>
<tr>
<td>11. Engagement in violence (composite, α=0.83)*</td>
<td>1.56 (0.74)</td>
<td>1.34 (0.52)</td>
<td>1.23 (0.47)</td>
<td>1.16 (0.32)</td>
<td>L/G &gt; B, Q, S*</td>
</tr>
<tr>
<td>12. Learn about people of different sexual orientations*</td>
<td>2.31 (1.38)</td>
<td>2.70 (1.29)</td>
<td>2.73 (1.20)</td>
<td>2.78 (1.19)</td>
<td></td>
</tr>
</tbody>
</table>

* p < 0.0042

A second research question addressed in the present was whether, for every category of reported sexual orientation, youth perceptions of adult support at school were
related their reported social experiences at school. To this end, a first set of analyses examined whether lesbian/gay, bisexual, unsure, and straight youth differed in their reported social experiences as a function of the adult support available to them at school, including their experiences of felt safety at school, reports of skipping school, one’s sense of belonging, reported physical, verbal, social, and sexual orientation victimization, substance use, engagement in violence, and learning about people of different sexual orientations. Specifically, Pearson product moment correlations were conducted within each of the four sexual orientation groups to examine the relationship between perceived adult support at school and reported social experiences at school, with Fisher’s z, used to examine whether these correlations varied significantly across groups. For these analyses, perceived adult support was assessed using the 7-item composite index of perceived adult respect and recognition. Moreover, these analyses were conducted using the overall sample (19,551) because it was possible to obtain statistically meaningful results using the entire population.
Table 4
Zero-Order Correlations between Perceptions of Adult Support and Social Experiences

<table>
<thead>
<tr>
<th>Adult Respect/Recognition (composite) with:</th>
<th>Lesbian/Gay (N=201-233)</th>
<th>Bisexual (N = 537-590)</th>
<th>Unsure-Questioning (N=1244-1397)</th>
<th>Straight (N=15223-16512)</th>
<th>Significant Differences (Based on Fisher’s z)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Safety at school</td>
<td>0.52**</td>
<td>0.45**</td>
<td>0.49**</td>
<td>0.35**</td>
<td>L/G, B, Q &gt; S</td>
</tr>
<tr>
<td>2. Skipped school all day</td>
<td>-0.42**</td>
<td>-0.33**</td>
<td>-0.36**</td>
<td>-0.16**</td>
<td>L/G, B, Q &gt; S</td>
</tr>
<tr>
<td>3. Peer belonging (composite)</td>
<td>0.65**</td>
<td>0.48**</td>
<td>0.57**</td>
<td>0.49**</td>
<td>L/G, Q &gt; B, S</td>
</tr>
<tr>
<td>4. Physical Victimization</td>
<td>-0.36**</td>
<td>-0.30**</td>
<td>-0.34**</td>
<td>-0.15**</td>
<td>L/G, B, Q &gt; S</td>
</tr>
<tr>
<td>5. Verbal Victimization</td>
<td>-0.25**</td>
<td>-0.26**</td>
<td>-0.13**</td>
<td>-0.23**</td>
<td>L/G = S</td>
</tr>
<tr>
<td>6. Social Victimization</td>
<td>-0.25**</td>
<td>-0.30**</td>
<td>-0.26**</td>
<td>-0.14**</td>
<td>L/G = S</td>
</tr>
<tr>
<td>7. Sexual Orientation Victimization</td>
<td>-0.29**</td>
<td>-0.33**</td>
<td>-0.34**</td>
<td>-0.15**</td>
<td>L/G, B, Q &gt; S</td>
</tr>
<tr>
<td>8. Substance Use (composite)</td>
<td>-0.49**</td>
<td>-0.37**</td>
<td>-0.37**</td>
<td>-0.19**</td>
<td>L/G &gt; Q</td>
</tr>
<tr>
<td>9. Engagement in violence (composite)</td>
<td>-0.44**</td>
<td>-0.40**</td>
<td>-0.38**</td>
<td>-0.23**</td>
<td>L/G, B, Q &gt; S</td>
</tr>
<tr>
<td>10. Learn about people of different sexual orientations</td>
<td>0.40**</td>
<td>0.30**</td>
<td>0.26**</td>
<td>0.27**</td>
<td>L/G = B</td>
</tr>
</tbody>
</table>

** p < 0.01

Note: Variations in N for each group reflect variations in the sample size considered in each correlation, owing primarily to missing data.

As shown in Table 4 (for detailed information on the table, see Appendix Α: A1-A6), across all sexual orientation groups, perceptions of adult support at school were positively related to students’ reported sense of safety at school and their sense of belonging, and negatively related to reports of victimization, through physical, verbal,
and social bullying, as well as victimization based on sexual orientation. In other words, the more students felt that the adults at school recognized and respected them, the more they felt safe at school and felt that they belonged within the school context, and the less they reported being victimized physically, verbally, socially, or on the basis of their sexual orientation. Moreover, the more adult support reported, the less likely students were to skip school, or report engaging in alcohol and drug use or violence. Although the same pattern of significant correlations was observed for lesbian/gay, bisexual, unsure, and straight youth (see Table 4 and Appendix A); the magnitude of the correlations differed.

Fisher’s z tests were used to determine whether the differences observed in the correlations between perceived adult support and social experiences differed significantly across the four sexual orientation groups. Significant differences between correlations for a particular measure are described in the final column of Table 4 and the results of Fisher’s z transformations are found in Appendix A in more details. Results of these analyses revealed that the correlations obtained for lesbian/gay, bisexual youth were with one exception, not significantly different. The exception here is that, the relationship between perceived adult support and reported feelings of belonging was significantly stronger for lesbian/gay youth than for bisexual youth, \( z = 3.24, p < 0.05 \), with an effect size of 0.26.

Fisher’s z-tests revealed that almost all correlation coefficients between lesbian/gay and straight youth and between bisexual and straight students were significantly different. When comparing lesbian/gay and straight youth, only two of the correlations were not significantly different, which were those between perceived adult
support and both verbal and social victimization (see Table 4). Thus, with the exception of social and verbal victimization, the links between adult support and outcome variables was significantly stronger lesbian/gay youth than for straight youth.

Similarly, when comparing bisexual and straight students, only two of the correlations were not significantly different—those between perceived adult support and sense of belonging, and those between adult support and learning about people of different sexual orientations, $z = -0.31, p = 0.76$ and $z = 0.74, p = 0.46$. As was the case with lesbian/gay youth, these data suggest that the links between adult support and social experiences was generally stronger for bisexual than for straight youth (see Table 4 and Appendix A).

The same general pattern was evident when comparing correlations observed for unsure versus straight youth. Specifically, in all cases but one case, the relationship between perceived adult support and social experiences was significantly stronger for unsure youth as compared to straight youth. The one exception was with regard to learning about people of different sexual orientations for which the correlations observed did not differ significantly.

Fisher's $z$ tests indicated that the correlations observed for lesbian/gay, bisexual and unsure youth, for the most part, were similar in magnitude. Exceptions here included stronger relations observed for feelings of school belonging and perceived adult support for lesbian/gay and unsure youth than for bisexual youth. Similarly, when comparing correlations observed for lesbian/gay and bisexual youth, only one pair of correlations differed significantly, that observed for perceived school belonging and adult support. Finally, correlations observed for lesbian/gay youth and for unsure youth did not differ.
significantly with the exception between adult support and learning about people of
different sexual orientations, which was higher for lesbian/gay youth.

Overall, results of these correlational analyses suggest that perceptions of adult
support are systematically linked with social experiences for all youth, but these
relationships are significantly stronger for lesbian/gay, bisexual, and unsure youth than
for straight youth, although the patterns vary slightly across outcome measures
considered.

To further explore the role of supportive adults at school, particularly for LGBQ
youth, subsequent analyses examined whether the presence or absence of a supportive
adult had a direct impact on LGBQ adolescents’ experiences with felt safety at school,
skipping school, belonging, physical, verbal, social, and sexual orientation victimization,
substance use, engagement in violence and learning about people of different sexual
orientations. Straight youth were not included in the analyses because the purpose of this
question was to focus on any potential differences among LGBQ youth that were not
detected in the correlations. For this question the matched sample (n = 170, 170 ×3-for
lesbian/gay, bisexual, and unsure- 510). For these analyses, self-identified LGBQ youth
were divided into three groups in terms of adult support in terms of the adult support
(adult respect and recognition composite) they experience at school. Specifically, student
responses on the composite index of perceived adult respect and recognition were used to
distinguish students who generally disagreed on items regarding the availability of adult
support (DA=1.00; overall composite score between 1.00 and 2.50, n=120), those who
were undecided on adult support about the availability of adult support (U=2.00; overall
composite score between 2.51 and 3.50, n=184), and those who generally agreed that
adult support was available (A=3.00; overall composite score between 3.51-5.00, n=201). Of interest in the present analyses was whether these three groups of students differed significantly in terms of their social experiences at school. Differences were assessed by a 2 (sex)×3 (sexual orientations)×3 (3-levels of perceptions of adult support) ANOVA. Because ten separate ANOVA tests were conducted, the significance level was adjusted from 0.05 to 0.005 (Bonferroni inequality).

The 2 ×3 ×3 ANOVA for perceived safety at school (see row 1 in Table 12) indicated significant differences in felt safety at school among lesbian/gay, bisexual, and unsure students, $F(2, 483) = 6.68, p < 0.005, \eta_p^2 = 0.03$. Moreover, significant differences were also observed among the different levels of adult support (DA, U, and A), $F(2, 483) = 74.20, p < 0.005, \eta_p^2 = 0.24$. There were no significant main effects for sex and there were no significant interactions between sex and sexual orientation, sex and adult support, sexual orientation and adult support, or sex, sexual orientation, and adult support. Post-hoc analyses (Scheffe) revealed (as expected based on the first research question) that lesbian/gay youth reported significantly lower sense of safety at school relative to bisexual and unsure youth. There were no significant differences between bisexual and unsure youth. Also, post-hoc analyses demonstrated that LGBQ adolescents who did not agree on the availability of adult support reported significantly lower felt safety at school than those students who were undecided or generally agreed on the availability of adult support. Significant differences were also observed between students who were undecided and students who agreed on adult support with students who had favorable views of adults support reporting significantly higher safety at school than
those who were undecided on the availability of adult support. Thus, the three groups of adult support were significantly different from one another.

For skipping school all day, the three-way ANOVA (see row 2 in Table 12) showed that significant differences in skipping school among lesbian/gay, bisexual, and unsure students, $F(2, 480) = 11.16, p < 0.005, \eta^2 = 0.04$. Moreover, significant differences were also observed among the different levels of adult support (DA, U, and A), $F(2, 480) = 37.40, p < 0.005, \eta_p^2 = 0.20$. There were no significant mains effects for sex and there were no significant interactions between sex and sexual orientation, sex and adult support, sexual orientation and adult support, or sex, sexual orientation, and adult support. Post-hoc analyses (Scheffe) revealed (as expected based on the first research question) that lesbian/gay youth reported significantly higher levels of skipping school than bisexual and unsure youth. There were no significant differences between bisexual and unsure youth. Also, post-hoc analyses demonstrated that adolescents who did not agree on the availability of adult support reported significantly more skipping school than those students who were undecided or generally agreed on the availability of adult support. Significant differences were also observed between students who were undecided and students who agree on the availability of adult support with students who had a positive view of adult support availability reporting significantly lower levels of skipping school than those who were undecided on the availability of adult support. Thus, the three groups of adult support were significantly different from one another in their report of skipping school with students who had favorable views of adult support reporting significantly less skipping school than the undecided group and disagreed (on
availability of adult support) group. The undecided group, in turn, reported significantly less skipping school than the disagreed (on availability of adult support) group.

There were no significant differences in sense of school belonging among lesbian/gay, bisexual, and unsure students. Significant differences were found among the different levels of adult support (DA, U, and A), \( F(2, 485) = 85.96, p < 0.005, \eta_p^2 = 0.26. \)

There were no significant mains effects for sex or sexual orientation and there were no significant interactions between sex and sexual orientation, sex and adult support, sexual orientation and adult support, or sex, sexual orientation, and adult support. Post-hoc analyses revealed that adolescents who did not agree on the availability of adult support reported significantly a lower sense of belonging than those students who were undecided or generally agreed on the availability of adult support. Interestingly, there were no significant differences between students who were undecided on adult support at school and those who agree on the presence of adult support at school. As a result, students who had negative views on the availability of adult support reported the lowest sense of school belonging.

The 2 \(\times\) 3 \(\times\) 3 ANOVA (row 4 in Table 12) demonstrated that there were significant differences in physical victimization among lesbian/gay, bisexual, and unsure students, \( F(2, 462) = 8.80, p < 0.005, \eta_p^2 = 0.04. \) Significant differences were found among the different levels of adult support (DA, U, and A), \( F(2, 462) = 24.29, p < 0.005, \eta_p^2 = 0.11. \) There were no significant mains effects for sex and there were no significant interactions between sex and sexual orientation, sex and adult support, sexual orientation and adult support, or sex, sexual orientation, and adult support. Through post-hoc analyses (Scheffe), results revealed that lesbian/gay youth reported more physical
victimization than bisexual and unsure youth, and there were no differences between bisexual and unsure youth. Furthermore, post-hoc analyses (Scheffe) showed that adolescents who did not agree on the availability of adult support indicated higher levels of physical victimization than those students who were undecided or agreed on the availability of adult support. There were no significant differences between students who were undecided on adult support at school and those who agreed on the presence of adult support at school. Thus students who disagreed on the availability of adult support at school were the group reporting significantly the most physical victimization.

As indicated in Table 12 (row 5), there were significant differences among LGBQ youths' report of verbal victimization, $F(2, 455) = 6.15, p < 0.005, \eta^2_p = 0.03$. Significant differences were also found among the different levels of adult support (DA, U, and A), $F(2, 455) = 13.43, p < 0.005, \eta^2_p = 0.06$. There were no significant mains effects for sex and there were no significant interactions between sex and sexual orientation, sex and adult support, sexual orientation and adult support, or sex, sexual orientation, and adult support. Post-hoc analyses demonstrated that lesbian/gay youth reported more verbal victimization than unsure youth. There were no significant differences between lesbian/gay youth and bisexual youth and, also, there were no significant differences between bisexual and unsure youth. Post-hoc analyses (Scheffe) also indicated that adolescents who did not agree on the availability of adult support reported significantly more verbal victimization than those students who were undecided or agreed on the availability of adult support. There were no significant differences between students who were undecided on adult support at school and those who agreed
on the presence of adult support at school. Thus, students who disagreed on the availability of adult support at school reported significantly the most verbal victimization.

The three-way ANOVA results for social victimization (see Table 12) were similar in pattern to the results of verbal victimization. Significant differences were observed among LGBQ youth reporting social victimization, $F(2, 457) = 8.61, p < 0.005, \eta^2_p = 0.04$. Significant differences were also found among the different levels of adult support (DA, U, and A), $F(2, 457) = 17.92, p < 0.005, \eta^2_p = 0.07$. There were no significant mains effects for sex and there were no significant interactions between sex and sexual orientation, sex and adult support, sexual orientation and adult support, or sex, sexual orientation, and adult support. Scheffe’ post-hoc analyses showed that lesbian/gay youth reported more social victimization than unsure youth. There were no significant differences between lesbian/gay youth and bisexual youth and, also, there were no significant differences between bisexual and unsure youth. Post-hoc analyses (Scheffe) also indicated that adolescents who did not agree on the availability of adult support reported significantly more social victimization than those students who were undecided or agreed on the availability of adult support. There were no significant differences between students who were undecided on adult support at school and those who agreed on the presence of adult support at school. As a result, students who disagreed on the availability of adult support at school reported significantly the most social victimization.

For sexual orientation victimization, results revealed (see Table 12) significant differences among LGBQ youth, $F(2, 458) = 12.17, p < 0.005, \eta^2_p = 0.05$. Significant differences were also found among the different levels of adult support (DA, U, and A), $F(2, 458) = 35.53, p < 0.005, \eta^2_p = 0.13$. There were no significant mains effects for sex
and there were no significant interactions between sex and sexual orientation, sex and adult support, sexual orientation and adult support, or sex, sexual orientation, and adult support. Scheffe’ post-hoc analyses revealed that lesbian/gay youth reported significantly more sexual orientation victimization than bisexual and unsure youth. There were no significant differences between bisexual youth and unsure youth. Post-hoc analyses (Scheffe) also indicated that adolescents who did not agree on the availability of adult support reported significantly more sexual orientation victimization than those students who were undecided or agreed on the availability of adult support. There were no significant differences between students who were undecided on adult support at school and those who agreed on the presence of adult support at school. Based in these results, youth who viewed adult support at school negatively reported significantly the most sexual orientation victimization.

The 2 ×3 ×3 ANOVA (Table 12) resulted in significant differences among LGBQ youth in substance use, $F(2, 442) = 14.65, p < 0.005, \eta_p^2 = 0.07$. Significant differences were also found among the different levels of adult support (DA, U, and A), $F(2, 442) = 38.17, p < 0.005, \eta_p^2 = 0.15$. Also, there was a significant interaction between sex and sexual orientation, $F(2, 442) = 6.03, p < 0.005, \eta_p^2 = 0.03$. There were no significant mains effects for sex and there were no significant interactions between sex and adult support, sexual orientation and adult support, or sex, sexual orientation, and adult support. As shown by post-hoc analyses (Scheffe), lesbian/gay youth reported significantly more substance use than bisexual and unsure youth. There were no significant differences between bisexual youth and unsure youth. Post-hoc analyses (Scheffe) also demonstrated that adolescents who did not agree on the availability of
adult support reported significantly more substance use than those students who were undecided or agreed on the availability of adult support. There were no significant differences between students who were undecided on adult support at school and those who agreed on the presence of adult support at school. Post-hoc analyses (Scheffe) of the interaction between sex and sexual orientation showed that lesbian youth reported significantly the most substance use relative to female bisexual and unsure youth. There were no significant different between the males of the three sexual orientation subgroups.

Findings on engagement in violence (see Table 12) illustrated significant differences among LGBQ youth, $F(2, 454) = 10.12, p < 0.005, \eta^2_p = 0.04$. Significant differences were also found among the different levels of adult support (DA, U, and A), $F(2, 454) = 33.99, p < 0.005, \eta^2_p = 0.13$. There were no significant mains effects for sex and there were no significant interactions between sex and sexual orientation, sex and adult support, sexual orientation and adult support, or sex, sexual orientation, and adult support. Scheffe' post-hoc analyses revealed that lesbian/gay youth reported significantly more engagement in violence than bisexual and unsure youth. There were no significant differences between bisexual youth and unsure youth. Post-hoc analyses (Scheffe) also underscored that adolescents who did not agree on the availability of adult support reported significantly more engagement in violence than those students who were undecided or agreed on the availability of adult support. There were no significant differences between students who were undecided on adult support at school and those who agreed on the presence of adult support at school.

The last three-way ANOVA (see row 10, Table 12) indicated that significant differences in students' reports on learning about people of different sexual orientations
were found among the different levels of adult support (DA, U, and A), $F(2, 433) = 20.66, p < 0.005, \eta^2 = 0.09$. Significant main effects were not observed in sex or sexual orientation and there were no significant interaction between any of the independent variables. Post-hoc analyses revealed that students who disagreed on the availability of adult support were significantly the least to report learning about people of different sexual orientations. There were no significant differences between youth who were undecided about the availability of adult support and those who agreed on it.

The magnitude of the effects for the main effects of adult availability was relatively small, ranging from very small (see Cohen, 1990) to $\eta^2 = 0.06$ (verbal victimization) to $\eta^2 = 0.26$ (belonging).

In summary, the results of the three-way ANOVA corroborated that LGBQ youth who had a favorable view on the availability of adult support at school reported significantly more felt safety at school and less skipping school than both LGBQ youth who were undecided on the availability of adult support and those who disagreed on the availability of adult support. Furthermore, students who were undecided on adult support were reporting significantly more felt safety at school and less skipping school than youth who have held negative views regarding the availability of adult support. Students who reported lack of adult support availability reported significantly the least safety at school and the most skipping school. However, there were no significant differences between students who generally agreed on the availability of adult support at school and those who were undecided relative to their sense of belonging at school, the various forms of victimization, substance use, engagement in violence, and learning about people of different sexual orientations. Students who did not have favorable views of adult support
availability were significantly the least to express sense of school belonging, experiencing different forms of victimization, using substance, engaging in violence, and learning about people of different sexual orientations.

**Table 5**

Variations in Social Experiences across Different Levels of Perceived Adult Support for LGBQ Youth (n = 170 per group)

<table>
<thead>
<tr>
<th>Variables</th>
<th>DA</th>
<th>U</th>
<th>A</th>
<th>Post Hocs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Safety at school</td>
<td>2.26 (1.43) *</td>
<td>3.45 (1.29) *</td>
<td>4.16 (0.92) *</td>
<td>DA&gt;Q,A*</td>
</tr>
<tr>
<td>2. Skipped school all day</td>
<td>2.94 (1.74) *</td>
<td>1.92 (1.25) *</td>
<td>1.49 (0.97) *</td>
<td>DA&gt;Q,A*</td>
</tr>
<tr>
<td>3. Peer belonging (α=0.76)</td>
<td>2.37 (0.83) *</td>
<td>3.17 (0.64) *</td>
<td>3.58 (0.64) *</td>
<td>DA&gt;Q,A*</td>
</tr>
<tr>
<td>4. Physical bullying to me</td>
<td>2.31 (1.27) *</td>
<td>1.63 (0.98) *</td>
<td>1.34 (0.68) *</td>
<td>DA&gt;Q,A*</td>
</tr>
<tr>
<td>5. Verbal bullying to me</td>
<td>2.59 (1.27) *</td>
<td>2.00 (1.08) *</td>
<td>1.82 (0.99) *</td>
<td>DA&gt;Q,A*</td>
</tr>
<tr>
<td>6. Social bullying to me</td>
<td>2.49 (1.31) *</td>
<td>2.01 (1.08) *</td>
<td>1.67 (0.90) *</td>
<td>DA&gt;Q,A*</td>
</tr>
<tr>
<td>7. Sexual orientation victimization (composite, α=0.76)</td>
<td>2.15 (1.28) *</td>
<td>1.36 (0.71) *</td>
<td>1.23 (0.57) *</td>
<td>DA&gt;Q,A*</td>
</tr>
<tr>
<td>8. Substance Use (composite, α=0.95)</td>
<td>1.75 (0.81) *</td>
<td>1.25 (0.49) *</td>
<td>1.11 (0.36) *</td>
<td>DA&gt;Q,A*</td>
</tr>
<tr>
<td>9. Engagement in violence (composite, α=0.95)</td>
<td>1.82 (0.82) *</td>
<td>1.33 (0.50) *</td>
<td>1.17 (0.60) *</td>
<td>DA&gt;Q,A*</td>
</tr>
<tr>
<td>10. Learn about people of different sexual orientations</td>
<td>1.82 (1.17)</td>
<td>2.62 (1.14)</td>
<td>2.58 (1.30)</td>
<td></td>
</tr>
</tbody>
</table>

* p < 0.005

Note: DA, disagree on the availability of adult support at school; U, undecided on the availability of adult support at school; A, agree on the availability of adult support at school.
Hierarchical Multiple Regressions Explaining LGBQ Youth Sense of Safety and Belonging at School

The fourth research question examines whether lesbian/gay, bisexual and unsure youths’ perceptions of adult support at school predicted their reporting of a sense of safety and belonging at school above and beyond their perceptions of family support and care by peers at school. To examine this question, a series of hierarchical multiple regressions were conducted, explaining (a) perceptions of safety at school and then feelings of belonging at school, first from perceived family and peer support, which are known protective factors (Resnick et al., 1997; Tharninger & Welss, 2000) in the first block, followed by perceptions of adult support (one item: adults in my school care about students) in the second block. Separate regressions were run for each of the three LGBQ youth groups using subjects from the large (non-matched) sample to maximize sample size. Before running these multiple regression analyses, multivariate normality, linearity and homoscedasticity were assessed by examining scatter plots of the predicted scores against the residual scores. To avoid multicollinearity among independent variables, single items were used to answer this question. Family support was tapped through the item: There is an adult in my family I can go for support or advice or talk to about my problems and worries. The item for peer support was: Students at my school really care about each other and for adult support at school: Adults in my school really care about students.

Results of this analysis, as presented in Table 5 below, indicated that for lesbian/gay youth, perceptions of adult care in school accounted for a significant portion of the variance in their perceptions of safety at school above and beyond their perceptions of the
availability of family and peer support, $\Delta R^2 = 0.04$, $F_{\text{change}} (1, 216) = 11.29$, $p = 0.01$. The overall hierarchical regression model was significant; adjusted $R^2 = 0.30\%$, $F(3, 216) = 31.31$, $p < 0.01$. Thus, perceived support from family and peers accounted for about 26% of the variance in lesbian/gay youths’ perceptions of safety at school, perceived adult care accounted for an additional 4% of the variance in perceived safety at school. The Pratt index (Pratt, 1987; Thomas, Hughes, & Zumbo, 1998) was calculated in order to assess the contribution of every explanatory variable to the overall $R^2$, thus making it possible to order the explanatory variables in terms of the fraction of the $R^2$ that is attributed to the explanatory variables in the model. The Pratt Index demonstrated that lesbian/gay youths’ perceptions of students caring about each other at school was the strongest explanatory variable (Pratt = 0.47), followed by lesbian/gay youths’ perceptions of adults at school as caring about students (Pratt = 0.39), and finally lesbian/gay youth reporting the presence of a family member (Pratt = 0.14).
Table 6

Summary of Hierarchical Regression Examining the Relation of Lesbian/Gay Youth Views of Adult Care at School to their Perceptions of Safety at School

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SEB</th>
<th>β</th>
<th>Adjusted $R^2$</th>
<th>$\Delta R^2$</th>
</tr>
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<td>Step 1</td>
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<td></td>
<td></td>
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<td></td>
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<td>Family Support</td>
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<td>0.07</td>
<td>0.20</td>
<td>0.26**</td>
<td>0.26</td>
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<td>Peer Care</td>
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<td>0.08</td>
<td>0.42</td>
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<tr>
<td>Step 2</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Support</td>
<td>0.14</td>
<td>0.07</td>
<td>0.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Care</td>
<td>0.39</td>
<td>0.09</td>
<td>0.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Care at School</td>
<td>0.31</td>
<td>0.09</td>
<td>0.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** $p < 0.01$

As demonstrated in Table 7 below, for bisexual youth, perceptions of adult care in school explained a significant portion of the variance in their perceptions of safety at school above and beyond their perceptions of the availability of family and peer support, $\Delta R^2 = 0.05$, $F_{\text{change}}(1, 563) = 33.25, p < 0.01$. The overall hierarchical regression model was significant, adjusted $R^2 = 0.19\%$, $F(3, 563) = 42.19, p < 0.01$. As a result, perceived support from family and peers accounted for about 14% of the variance in bisexual youths' perceptions of safety at school and perceived adult care accounted for an additional 5% of the variance in perceived safety at school. The relative Pratt Index was calculated to determine the contribution of each explanatory to the variance ($R^2$) of their feelings of safety at school. The Pratt Index revealed that perceptions of adults at school
as caring about students at schools was the strongest explanatory variable in explaining the variance in safety ($Pratt = 0.44$), followed by bisexual youth perceptions of peers at school as caring about other students ($Pratt = 0.38$) and finally their views on the presence of a supportive family member ($Pratt = 0.18$).

**Table 7**

Summary of Hierarchical Regression Examining the Relation of Bisexual Youth Views of Adult Care at School to their Perceptions of Safety at School

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SEB</th>
<th>$\beta$</th>
<th>Adjusted $R^2$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Family Support</td>
<td>0.17</td>
<td>0.04</td>
<td>0.19**</td>
<td>0.14**</td>
<td>0.14</td>
</tr>
<tr>
<td>Peer Care</td>
<td>0.31</td>
<td>0.04</td>
<td>0.28**</td>
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<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td>0.19**</td>
<td>0.05**</td>
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<tr>
<td>Peer Care</td>
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<tr>
<td>Adult Care at School</td>
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<td>0.05</td>
<td>0.24**</td>
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</table>

**$p < 0.01$**

Similarly for unsure youth, as shown in Table 8, perceptions of adult care in school explained a significant portion of the variance in their perceptions of safety at school above and beyond their perceptions of the availability of family and peer support, $\Delta R^2 = 0.03$, $F_{\text{change}}(1, 1334) = 47.95, p < 0.01$. The overall hierarchical regression model was significant, adjusted $R^2 = 0.20\%$, $F(3, 1334) = 112.30, p < 0.01$. Perceived support from family and peers accounted for about 17% of the variance in lesbian/gay unsure youths’ perceptions of safety at school and perceived adult care accounted for an additional 3% of
the variance in perceived safety at school. The relative Pratt Index was calculated to determine the contribution of each explanatory to the variance ($R^2$) of their feelings of safety at school. The Pratt Index revealed that perceptions of peers care students was the strongest explanatory variable in explaining the variance in safety ($Pratt = 0.56$), followed by unsure youth perceptions of adult care about other students ($Pratt = 0.35$), and finally their views on the presence of a supportive family member ($Pratt = 0.09$).

Table 8

Summary of Hierarchical Regression Examining the Relations of Unsure Youth Views of Adult Care at School to their Perceptions of Safety at School

<table>
<thead>
<tr>
<th>Variables</th>
<th>$B$</th>
<th>$SEB$</th>
<th>$\beta$</th>
<th>Adjusted $R^2$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td>0.17**</td>
<td>0.17</td>
</tr>
<tr>
<td>Family Support</td>
<td>0.11</td>
<td>0.02</td>
<td>0.12**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Care</td>
<td>0.39</td>
<td>0.03</td>
<td>0.37**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td>0.20</td>
<td>0.03**</td>
</tr>
<tr>
<td>Family Support</td>
<td>0.08</td>
<td>0.02</td>
<td>0.09**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Care</td>
<td>0.30</td>
<td>0.03</td>
<td>0.28**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Care at School</td>
<td>0.23</td>
<td>0.03</td>
<td>0.20**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** $p < 0.01$

A second series of three regression analyses were conducted, one for each of the three LGBQ groups, to examine the relative and unique contributions of perceived support from family, peers, and adults at school to feelings of school belonging. Specifically, hierarchical regression were conducted, explaining reported school belonging from student perceptions of family support and peers as caring (entered
together in Block 1) and perceptions of adult as care about other students (entered separately in Block 2). To answer this question, single items were used; otherwise, multicollinearity would have threatened the results. Students' sense of belonging was tapped through the question: I feel like I belong at my school. The explanatory variables used earlier to explain safety at school were the same variables used in this regression.

For lesbian/gay youth (see Table 9), the results showed that perceptions of adults care about students accounted for a small but significant increase in the variance observed, $\Delta R^2 = 0.02, F_{\text{change}} (1, 216) = 7.33, p < 0.01$. The overall hierarchical model was significant, adjusted $R^2 = 0.35, F (3, 216) = 43.90, p < 0.01$. Perceived support from family and peers accounted for around 35% of the variance in lesbian/gay youths' views of belonging at school and perceived adult care explained an additional 2% of the variance in belonging at school. The Pratt Index verified that lesbian/gay youths' perception of peer care at school was the strongest explanatory variable (Pratt = 0.64). Adult care at school followed (Pratt = 0.24). The variable of least strength in explaining belonging at school was family support (Pratt = 0.12).
### Table 9

Summary of Hierarchical Regression Examining the Relation of Lesbian/Gay Youth Views of Adult Care at School to their Sense of Belonging at School

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SEB</th>
<th>β</th>
<th>Adjusted $R^2$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Support</td>
<td>0.17</td>
<td>0.05</td>
<td>0.19**</td>
<td>0.35**</td>
<td>0.35</td>
</tr>
<tr>
<td>Peer Care</td>
<td>0.55</td>
<td>0.06</td>
<td>0.52**</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Support</td>
<td>0.12</td>
<td>0.05</td>
<td>0.13**</td>
<td>0.37</td>
<td>0.02**</td>
</tr>
<tr>
<td>Peer Care</td>
<td>0.45</td>
<td>0.07</td>
<td>0.42**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Care at School</td>
<td>0.20</td>
<td>0.07</td>
<td>0.19**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** $p < 0.01$

As illustrated in Table 10, bisexual students’ perceptions of adult care at school explained a significant portion of the variance above and beyond family and peer support, $\Delta R^2 = 0.06$, $F_{\text{change}} (1, 564) = 45.21, p < 0.01$. The overall hierarchical model was significant, adjusted $R^2 = 0.30$, $F (3, 564) = 81.66, p < 0.01$. Perceived support from family and peers accounted for around 24% of the variance in bisexual youths’ views of belonging at school and perceived adult care explained an additional 6% of the variance in belonging at school. The Pratt Index verified that bisexual youths’ perception of peer care at school was the strongest explanatory variable (Pratt = 0.49). Adult care at school followed (Pratt = 0.34). The variable of least strength in explaining belonging at school was family support (Pratt = 0.17).
Table 10

Summary of Hierarchical Regression Examining the Relation of Bisexual Youth Views of Adult Care at School to their Sense of Belonging at School

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SEB</th>
<th>β</th>
<th>Adjusted R²</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Support</td>
<td>0.20</td>
<td>0.03</td>
<td>0.22**</td>
<td>0.24**</td>
<td>0.24</td>
</tr>
<tr>
<td>Peer Care</td>
<td>0.43</td>
<td>0.04</td>
<td>0.40**</td>
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</tr>
<tr>
<td>Adult Care at School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** p < 0.01

For unsure youth (Table 11), unsure youths’ perceptions of adult care at school explained a significant portion of the variance above and beyond family and peer support, \( \Delta R^2 = 0.03, F_{\text{change}} (1, 1333) = 60.06, p < 0.01 \). The overall hierarchical model was significant, adjusted \( R^2 = 0.29, F (3, 1333) = 183.90, p < 0.01 \). Perceived support from family and peers accounted for around 29% of the variance in unsure youths’ views of belonging at school and perceived adult care explained an additional 3% of the variance in belonging at school. The Pratt Index verified that unsure youths’ perception of peer care at school was the strongest explanatory variable (Pratt = 0.59). Adult care at school followed (Pratt = 0.30). The variable of least strength in explaining belonging at school was family support (Pratt = 0.11).
Table 11

Summary of Hierarchical Regression Examining the Relation of Unsure Youth Views of Adult Care at School to their Sense of Belonging at School

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SEB</th>
<th>β</th>
<th>Adjusted $R^2$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td>0.26**</td>
<td>0.26</td>
</tr>
<tr>
<td>Family Support</td>
<td>0.14</td>
<td>0.02</td>
<td>0.16**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Care</td>
<td>0.46</td>
<td>0.03</td>
<td>0.45**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td>0.29</td>
<td>0.03**</td>
</tr>
<tr>
<td>Family Support</td>
<td>0.11</td>
<td>0.02</td>
<td>0.12**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Care</td>
<td>0.36</td>
<td>0.03</td>
<td>0.36**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Care at School</td>
<td>0.23</td>
<td>0.03</td>
<td>0.21**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** $p < 0.01$

Adult Support as a Moderator of the Relationship between Victimization and Skipping School

The final research question addressed in the present study considered whether adult support at school moderated the relationship between sexual orientation victimization and skipping school all day. A moderation effect made it possible to examine whether different levels of adult support at school (adult respect and recognition at school, composite) strengthens or weakens sexual orientation victimization’s role in explaining skipping school all day for LGBQ youth (see Baron & Kenny, 1986, Wu & Zumbo, in press). Through regression analyses, a moderation effect was identified by a significant interaction between the explanatory (sexual orientation victimization) variable and the moderator (adult support at school) variable, yielding to either a significant increase or
decrease in the outcome variable (skipping school all day). Before conducting these analyses, the means for sexual orientation victimization and perceived adult support at school were centered. The means for sexual orientation-based discrimination and adult support at school were centered before conducting the analyses. The regression model, predicting reported skipping school, involved two steps. In the first step, the centered means for sexual orientation-based victimization and adult support were entered. In the second step, the interaction of the centered values for sexual orientation-based victimization and adult support at school was entered. Separate regression analyses were run for each sexual orientation subgroup (lesbian/gay, bisexual, and unsure), using all the available subjects (i.e., not the reduced matched sample).

Results of these regression analyses varied across lesbian/gay, bisexual, and unsure students. For lesbian/gay students, as shown in Table 11, adult support at school was not a significant moderator [adult support x sexual orientation victimization interaction, $F_{\text{change}}(1, 213) = 0.202, p = 0.653$]. For bisexual youth (see Table 11) adult support at school was a significant moderator variable, [adult support x sexual orientation victimization interaction, $F_{\text{change}}(1, 557) = 10.70, p < 0.01$], between sexual orientation victimization and skipping school all day; however, it has a small effect size ($\Delta R^2 = 0.02$). Similar to bisexual youth, for unsure youth (see Table 12) adult support at school was a significant moderator variable, adult support x sexual orientation victimization interaction, $F_{\text{change}}(1, 1315) = 18.42, p < 0.01$. The effect size, however, was 0.01. Consequently, these results show that that adult support at school does not have a consistent significant role as a moderator between sexual orientation victimization (explanatory variable) and skipping school (outcome variable). For lesbian/gay youth,
adult support was not a significant moderator and, although adult support was a
significant moderator for bisexual and unsure youth, the magnitude of the effect was
extremely small.

**Table 12**

Moderator Effect

<table>
<thead>
<tr>
<th>Moderator</th>
<th>Outcome Variable</th>
<th>Explanatory Variable</th>
<th>$F_{change}$ (df₁, df₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Support at School</td>
<td>Skipping School</td>
<td>Sexual Orientation</td>
<td></td>
</tr>
<tr>
<td>Lesbian/Gay</td>
<td></td>
<td></td>
<td>0.65</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(1, 213)</td>
</tr>
<tr>
<td>Bisexual</td>
<td></td>
<td></td>
<td>10.70**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(1,557)</td>
</tr>
<tr>
<td>Unsure</td>
<td></td>
<td></td>
<td>18.42**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(1,1315)</td>
</tr>
</tbody>
</table>

** $p < 0.01$**
Chapter 5
Discussion

Overview

As an attempt to underscore that protective contextual factors promote the resilience and well-being of LGBQ youth, this study examined whether adult support at school serves as a protective factor for the various social experiences of LGBQ adolescents. The social experiences included adolescents' report of felt safety at school, belonging, skipping school, various forms of peer victimization, substance use, and violence at school. The results of this study contribute to the scarce yet emerging research literature on the resiliency of LGBQQ youth by extending prior research concerning the role of adults at school (Goodenow et al., 2006; Russell et al., 2001): LGBQ youth who perceive adults at school as supportive are more likely to have positive experiences at school. Simultaneously, the findings of this study shed light on the differences among LGBQQ youth. In this section, the findings are summarized and the implications, limitations, and future directions are identified.

Summary of Findings

The Social Experiences of LGBQ at School

An initial focus of the first research question was to replicate and extend findings from previous empirical studies regarding differences in social experiences of lesbian/gay, bisexual, unsure, and straight youth in high school. This was an essential first step before investigating the role of supportive adults at school because most studies in the literature have considered US samples, with no research to date on the experiences of Canadian youth. As well many of the studies of LGBQQ youth have considered small,
convenience samples or targeted organizations, or have relied on non-empirical findings (Elze, 2005; Russell et al., 2001; Williams et al., 2005). The present research, considering self-report data from a large urban school district, encompassing all the high schools in one of the province’s largest and most ethnically diverse districts, provides an important extension of prior research on LGBQQ youth. Also, BC is the only province in Canada that has established reading, writing and mathematics but also social responsibility as foundational skills for education. Accordingly, the present study provides a unique opportunity to evaluate the social experiences of LGBQQ youth with regard to victimization, substance use, skipping school, belonging, and safety in a province and district that seeks to support the positive social development of all youth.

In the present study, when a matched sample of self-identified, gay/lesbian, bisexual, unsure and straight youth (n= 170 per group, matched on grade, sex and school), were compared in terms of self-reports of their social experiences at school, significant differences were primarily evident between lesbian/gay youth and the three other groups. Specifically, lesbian/gay youth reported more negative perceptions of felt safety at school, belonging, and adult respect/recognition relative to their bisexual, unsure or straight peers. They also reported greater substance use and violence than students in the other three sexual orientation groups. For these outcome variables, bisexual, unsure and straight youth did not differ significantly from one another, although the means observed for straight youth were generally more positive and/or less negative than for bisexual and unsure youth.

With regard to reported victimization, lesbian/gay youth in the present sample reported significantly greater physical, verbal and social victimization as well as
victimization based specifically on sexual orientation than did straight students and students who were as yet unsure of their sexual orientation. Lesbian/Gay youth also reported more physical and sexual-orientation-based victimization than did bisexual youth, who in turn reported more physical and sexual-orientation based victimization than straight youth. Bisexual youth did not differ from lesbian/gay youth in terms of verbal and social victimization by peers. The four sexual-orientation groups did not differ significantly in reports of learning about people with sexual orientation within the school context.

The findings obtained in the first set of analyses not only support those in the existing literature on the experiences of LGBQQ youth, it also sheds light on the differences among LGBQ youth. To date, most studies have classified lesbian/gay, bisexual and unsure youth (if included) as one homogeneous group, examining differences in social experiences through a dichotomous lens: lesbian/gay youth versus straight youth or lesbian/gay and bisexual youth versus straight youth, owing in part to a lack of sufficient sample sizes. Youth who are unsure or are still questioning their sexual orientation have been included in very few studies to date. More recently, researchers have begun to examine the variability that exists among lesbian/gay, bisexual, questioning, and transgendered youth (Elze, 2005). The results of the present study clearly support the need to look at the social experiences of lesbian/gay, bisexual, and unsure youth separately.

For example, the findings in this study reveal that lesbian/gay students reported the lowest felt safety at school, a result consistent with previous research (D’Augelli, 1998; Hershberger). Lesbian/gay students in the present study reported a significantly lower
sense of safety ($M = 3.02$) in comparison to their bisexual ($M = 3.69$), unsure ($M = 4.16$), and straight ($M = 3.70$). However, unlike previous studies, bisexual youth here did not report significantly lower sense of safety relative to their straight peers. Additionally, the results on lesbian/gay students’ report of skipping school concur with the related, documented literature (see D’Augelli et al., 2002; DuRant et al., 1998; Garofalo et al., 1998). Lesbian/gay students had a significantly higher mean for school avoidance ($M = 2.51$) in comparison to their straight peers ($M = 1.45$). Interestingly, such differences in school avoidance were also found between lesbian/gay youth and bisexual youth and lesbian/gay youth and unsure youth. The scarce empirical literature on differences among lesbian/gay, bisexual, and unsure youth makes it difficult to determine whether these differences are unique to this study.

A similar pattern of results was also observed for lesbian/gay youths’ reported sense of belonging. The observed differences between lesbian/gay youth and straight youth replicate findings from previous studies that have documented that lesbian/gay youth experienced lower levels of school belonging than straight youth (Galliher et al., 2004; Murdock & Bolch, 2005; Rostosky et al., 2003; Russell et al., 2001). Unlike these studies, however, there were no significant differences observed in reported belonging between bisexual and unsure students and their straight peer, all reporting significantly stronger belonging than lesbian/gay youth.

Lesbian/gay youths’ perceptions of adult support at school (as measured by adult respect and recognition) were also the least favorable in comparison to bisexual, unsure youth, and straight youth, with the latter three groups not differing significantly from one another. Replication with larger samples of LGBQQ youth may be necessary to fully
document variations in reported social experiences across groups. The differences observed in the present study regarding perceptions of adult support between lesbian/gay youth and straight youth echo the experiences several lesbian/gay youth divulged in interviews (e.g., Bochenek et al., 2001; Little, 2001; Telljohann & Price, 1993). What is noteworthy is that yet again there were observed discrepancies between the bisexual students’ input in this study and in prior studies. For example, Russell and his colleagues (2001) found that female bisexual youth had the least positive feelings towards teachers in comparison to lesbian/gay and straight youth. A similar result was not observed here for either gender.

Lesbian/gay youths’ report of physical, verbal, social, and sexual orientation victimization in the present study is consistent with the extant literature (see D’Augelli, 1998; D’augelli et al., 2002; Elze, 2001; Pilkington & D’Augelli, 1995; Williams et al., 2005). Lesbian/gay youth reported more physical, verbal, social, and sexual orientation victimization than straight youth, as well as unsure youth. Significant differences in physical and sexual orientation victimization were also found between lesbian/gay and bisexual youth but the two groups did not differ in their report of verbal and social victimization. Differences between bisexual youth and straight youth were found in all forms of victimization. Notably, there were no significant differences between bisexual youth and unsure youth in all forms of victimization. Unlike present literature, there were no significant differences between unsure students and straight students in their report of the various forms of victimization (Williams et al., 2005).

Particularly interesting, however, were the social experiences reported by bisexual youth in the present study. For example, some suggest that substance use is, perhaps,
lesbian/gay and bisexual teens’ way “to escape, to numb, to cope” (Little, 2001, p. 103) and Garofalo et al. (1998) and Rostosky et al. (2003) found that bisexual and lesbian/gay youth reported higher substance use than straight youth. In this study, the only significant differences observed indicated that lesbian/gay youth reported greater substance use than bisexual, unsure, or straight youth. Thus, in contrast to the findings of Garofalo and other researches, bisexual youth in the present study did not report greater substance use. Indeed, on the vast majority of outcome measures in the present study, bisexual youth reported outcomes that were not significantly different from those of unsure or straight youth. What was noteworthy in this question was the interaction between sex and sexual orientation because post-hoc analyses of the interaction revealed that lesbian youth reported significantly more substance use than their female counterparts in the other three groups. However, there were no differences among the rest of the females and there were significant differences among the males. In a recent meta-analysis, Marshal, Friedman, Stall, King, Miles, Gold, Bukstein, and Morse (2008) mention studies that support our finding regarding lesbian youth higher substance use, yet they also mentioned other studies that found higher substance use among males and other studies that found no gender differences. Thus, it seems that a consistent finding regarding gender differences among LGBQQ youth in substance use is far from conclusive.

In the present study, reported engagement in violence was significantly higher for lesbian/gay youth in comparison to bisexual, straight, and unsure youth. The higher level of engagement in violence among lesbian/gay youth was also noted in the 2001 Massachusetts Youth Risk Behavior Survey (MYRBS), although in MYRBS, bisexual
youth (or who had same-sex sexual contact), were included with lesbian/gay youth as one homogeneous group that was compared to the rest of the student population in the sample. On the other hand, McCreary's AHS revealed that 23% of gay males were involved in physical fights, while 38% of bisexual male youth and 37% of straight youth engaged in fights. For females it was a different situation. 48% of lesbian youth, 37% of bisexual females and 17% of heterosexual females engaged in physical fights. Without statistical analysis, it is impossible to determine where significant differences occur in this pattern of results, but it would appear that variations are apparent as function of gender, with gay youth reporting the least amount of violence and lesbian youth reporting the highest levels of violence (relative to bisexual and heterosexual youth). In the present study, in contrast, results observed for reported use of violence did not vary as a function of sex and there was no significant sex by group interaction.

The first question was in support of existing literature on the contextual challenges lesbian/gay youth face although the same conclusion cannot be made for bisexual youth; however a few issues need to be taken into consideration. For example, the magnitude of the differences among lesbian/gay, bisexual, unsure, and straight youth were small. Effect sizes ranged from: 0.03 to 0.19. Undoubtedly, there were other factors that could have been considered, for example: race and grade. Also, a matched sample was used, making it impossible to learn about the experiences of more than half the overall sample.

Despite the drawbacks, this was an essential step before moving to the primary focus of this study: the role of supportive adults at school.
The Role of Supportive Adults at School

Recent empirical research shows that LGBQQ (in particular LGB) youth who had favorable views of their teachers were significantly less likely than their peers to face school troubles (Russel et al., 2001). In the present study, in keeping with the need to consider the unique social experiences of lesbian/gay, bisexual, and unsure youth, analyses, undertaken to examine the degree of relationship between adult support at school and a variety of negative outcome measures as well as positive measures, were conducted separately for lesbian/gay, bisexual, unsure, and straight youth.

Regardless of sexual orientation, bivariate correlations between students’ report of adult support at school and the rest of the variables corroborated prior research on the importance role of adult support at school (Goodenow, 1993; Osterman, 2000; Wentzel, 1997). Specifically, the present results indicated significant relationships between adult support and all the outcome variables across sexual orientation groups. In other words, regardless of whether students were lesbian/gay, bisexual, unsure, or straight, the more they perceived that they were respected and recognized by adults at school, the more positive and less negative social experiences they reported. Although correlational in nature and not amenable to causal interpretation, these data are consistent with the notion that adults at school can influence the lives of the children they work with. Particularly interesting, however, was the fact that the magnitude of these relationships varied significantly as a function of the sexual orientation of the students involved. For instance, the positive relationships observed between views of adult support at school and felt safety and belonging were significantly stronger for lesbian/gay youth than for straight youth. Also, the negative correlation between views of adult support at school
and physical victimization, sexual orientation-based victimization, substance use, school attendance, and engagement in violence were significantly stronger for lesbian/gay youth. As Table 5 demonstrated, for straight youth, the relationships between adult support and their social experiences, in general, were the weakest in magnitude. Although, there were a few differences among LGBQ youth, in most instances, the magnitude of the correlational differences in most comparisons was not significant.

The findings of this question, though only correlational, were concurrent with Croninger and Lee (2001), who articulated that socially at risk adolescents benefit the most from teacher support. Undoubtedly, adult support would be beneficial for all students; however, this support might be more important to for youth whose contexts are more challenging. Due to homophobia and heterosexism and regardless the differences among LGBQQ youth, they are aware of the predominant nature of their contexts (heterosexist); thus, adult support at school could be particularly important to them and the third question delved deeper into the role of supportive adults at school.

Adult support at school was further investigated in order to obtain a deeper understanding of the differences among LGBQ youth experiences with: felt safety at school, skipping school, sense of school belonging, physical, verbal, sexual, social, and sexual orientation victimization, substance use, engagement in violence, and learning about people of different sexual orientations. For these analyses, three groups of students were compared directly: those who have acknowledged the availability of adult support at school, those who were indecisive regarding the availability of adult support, and those who did not feel that they were supported by adults at school. While correlational analyses were done within group, this question, as a follow up analysis, allowed for direct
comparisons across groups. Straight students were excluded from this analysis because the premise of this study was identifying whether supportive adults can play a unique role in the social experiences of LGBQ youth at school in particular.

The purpose of the third question was to find out whether the three different levels of adult support were significantly different among LGBQ youths' reports of their social experiences. Youth who reported that they agreed on the availability of supportive adults at schools reported significantly the most felt safety at school. Undecided youth also reported significantly more felt safety than youth who disagreed on adult support. Thus, all three levels were significantly different from one another. A similar result was found in skipping school. All three levels of perceptions of adult support were significantly different from one another, with youth who agree on the availability of adult support, reporting skipping school the least. The fact that students' safety and attendance are linked to the availability of adult support implies that adult support at school is a must because safety and attendance are related to students' rights. Thus, by feeling unsafe and perhaps preferring to skip school, their school context is contributing to their deprivation of their rights. Moreover, skipping school is positively linked to school drop out (Fine, 1991) and as Croninger and Lee (2001) assert that at our time the implications of dropping out of school are grim. Youth gravely limit their chances for a stable future if they do not complete secondary school education.

For the rest of the social experiences, a significant difference was found between students who did not believe they have adult support at school and their peers who were undecided or believed that adult support was available. There were no significant differences, however, between youth who were undecided and their counterparts who
agreed that they have adult support. If one takes a closer look at the social experiences involved (school belonging, victimization, substance use, engagement in violence), one can find that these are activities that mainly involve interactions with peers, as opposed to safety and skipping, which could be viewed, perhaps, as more private. As mentioned earlier during adolescence peers’ influence takes the driver’s seat, which was a notion reflected in one students’ answer to Certo et al., (2003) about the importance of peers: the study body that kept him on coming back to school. Thus, perhaps for these experiences, students who are undecided about adult support do not differ from students who agree on adult support because peer influence takes precedence.

This question showed that students with negative views regarding the availability of adult support are reporting the least positive experiences. However, the effect sizes were relatively small and only part of the overall sample was used. Undoubtedly, there are other factors that come to play. The next question’s purpose was to examine the uniqueness of adult support at school in comparison to other crucial players in the adolescents’ lives.

A primary question addressed in the present study was the extent to which the role of supportive adults at school was unique in explaining the social experiences of LGBQ youth, relative to other types of interpersonal support, primarily family support (as reflected in the item: There is an adult in my family I can go to for support or advice or talk to about my problems or worries) and peer support (as reflected in the item: peers in my school really care about each other). Extant literature demonstrates the protective role of family support. Adolescents’ experiences tend to be positive when their family relationships are warm (Steinberg, 1990). Family relationships and positive peer
relationships are fundamental protective factors in the lives of adolescents (Hymel et al., 1996; Osterman, 2000; Resnick et al., 1997; Tharninger & Welss, 2000; Wentzel, 1994). Research on LGBQ youth-family relationships, on the other hand, is scarce Russell et al., 2001). Moreover, as indicated by Telljohann and Price (1993), seeking support from family and peers might be especially difficult for LGBQ youth and consequently, they need a “sympathetic other” during difficult times. Goodenow et al. (2006) only recently addressed sense of safety at school and the role of staff. Through logistic regression she and her colleagues found that sexual minority youth who believed that there was a staff member at school they could go to were one third as likely as those without support to report being unsafe.

The present study’s finding gives empirical support to Telljohann’s and Price’s assertion and extends Goodenow et al.’s (2006) study by showing that adult support at school is a unique factor in predicting LGBQ sense of safety at school. Across lesbian/gay, bisexual, and unsure youth, perceptions of family and peer support contributed significantly to feelings of school safety, accounting for 17%-26% of the variance. Adult support at school contributed an additional 3%-5% of the variance over and above that explained by family and peer support.

A similar set of regression analyses were conducted to explore the relative influence of perceived adult support at school on feelings of school belonging above and beyond family and peer support. Results confirmed that adult support contributed uniquely, above and beyond family and peer support, to students’ perceptions of belonging at school. This finding confirms that LGBQ youth like heterosexual youth seek belonging
in their school context through relationships with the members of their school community.

A final question addressed in the present study was whether adult support at school moderated the relationship between sexual orientation victimization and skipping school among LGBQ youth. Results of these analyses failed to provide evidence for moderation among lesbian/gay youth, but adult support was found to be a significant moderator for bisexual and unsure youth. Thus for bisexual and unsure youth, the link between peer victimization (based on sexual orientation victimization) and skipping school varied, depending on whether or not students felt supported by adults at school. For those who felt supported, respected, and recognized by adults at school, peer victimization did not lead to more school avoidance, while for students who did not feel supported by adults at school; greater peer victimization was associated with greater school avoidance (i.e., more skipping school). However, the effect sizes for bisexual and unsure youth were small (1.6% for bisexual and 1.1% for unsure), which is familiar in moderation (see Wu & Zumbo, 2007).

Taken together, results of several analyses conducted in the present study point to the remarkable protective role of supportive adults for LGBQ youth. In fact, bisexual and unsure youth adult support was found to moderate the impact of social experiences (victimization) on behavior (skipping school), extending previous research on the importance of adult support (Murdock & Bolch, 2005; Russell et al., 2001). For lesbian/gay youth, the availability of adult support failed to moderate the link between peer victimization based on sexual orientation and school avoidance. The lack of a buffering relationship between lesbian/gay (as well as bisexual) youth adjustment and
social support was also found in Murdock and Bolch (2005). It may be that lesbian/gay youth are longing for support that uniquely addresses their concerns as a minority living in an explicitly dominant heterosexist world. In one qualitative study, the vast majority of lesbian/gay youth stated that their teachers were positive about their sexual orientation, were supportive and that they treated them normally. However, when these students were asked about what the school could do for them to make their life better, the same students overwhelmingly mentioned that teachers should treat the issue with respect and not allow "gay put-downs", and more counselors were needed be more caring and understanding of lesbian/gay individuals (Telljohann & Price, 1993). Thus, for lesbian/gay youth, the kind of adult support needed is not direct, as would be reflected in their acceptance by adults, but indirect, as would be reflected in their efforts to address biases that exist within the larger school and peer community.

Finally, this result perhaps indicates that while having supportive adults at school is necessary, it is not enough. Adults at school also need explicit training in how to best support LGBQ youth (Elze, 2005; Mahan, Varjas, Dew, Meyers, Singh, Marshall, & Graybill, 2006; Russell, 2005). A conscious active effort is vital in eliminating the long-standing heterosexist beliefs from society’s institutions.

Implications of Findings

The results of the present study replicate and extend previous research demonstrating that the social experiences of LGBQQ youth are far more negative and less positive than those of heterosexual youth. The primary goal of the present study, however, was to investigate whether supportive adults at school could serve as a protective factor for lesbian/gay, bisexual, and unsure youth. Although adult support
significantly moderated the relationship between bisexual and unsure youths’ experiences with sexual orientation-based victimization and skipping school, it did not moderate this relationship for lesbian/gay youth. However, adult support did uniquely contribute to lesbian/gay, bisexual, and unsure youths’ sense of belonging and safety at school. Given these results, this study has several educational and research implications, as discussed below.

After finding that LGB youth who had positive feelings towards their teachers experienced less school troubles, Russell et al. (2001) concluded that schools need to provide their teachers with the training they need to support their LGB students. The results of this study concur with the Russell et al. conclusion. All school members, and in particular teachers, should be provided with the skills and training that would assist them in providing support to LGBQQ youth. Today, in North American culture, we are aware of the unconscious but pervasive nature of heterosexism and homophobia. Explicit and planned awareness and training must be provided to teachers and school staff in order to ensure that homophobic and heterosexist practices cease to be the norm. LGB youth have long expressed their disappointment in witnessing teachers not preventing other students from using homophobic slurs (Baker, 1990; Telljohann & Price, 1993). Because peers play such an integral role in an adolescent’s life, caring adults at school should be raising awareness among all students that homophobic remarks are not to be tolerated. Of course, such practices need to start early on in schools.

Raising awareness among adults working with children and youth should start in teacher education programs in post-secondary institutions. Universities and colleges carry the responsibility of examining the values they implicitly and explicitly teach. If one of
the goals of education is to develop contributing citizens, then the social and emotional aspects of learning need to have a place in the teacher-education program, just like academic training.

The results of the present study support the need for examining the protective factors that are available to LGBQQ youth in addition to the risk factors. The existing literature on the experiences of LGBQQ youth should not only include the negative aspects of their school experiences. As presented in this study, there are contextual factors in the lives of LGBQQ youth that are promoting their well being and these factors should also have a place in the empirical literature on their school experiences (Russell, 2005).

The variability found among lesbian/gay, bisexual and unsure youth imply the need to examine the experiences of every group separately because, as illustrated here, they are not homogenous. To advance the literature in the field and to provide youth with what they need in schools, educators and researchers need to reconsider classifying LGBQ youths under the same group (Busseri et al., 2006; Elze 2005; Russell et al., 2001). That being, results of the present study also demonstrate that LGBQQ adolescents have something in common: adolescents’ sense of belonging at school is related to having caring adults. Thus, this study confirms that during adolescence, adults also matter.

Limitations and Strengths

As anticipated, overall, this study demonstrated that supportive adults at school play a positive role for LGBQ youth but it was not without limitations. This section identifies and discusses both the strengths and shortcomings of the present study.
One limitation of the present study and perhaps the field in general, is the challenge of identifying LGBQ youth. The present study included one question on sexual orientation that prompted the informants to self-identify as lesbian/gay, bisexual, unsure or straight. Although self-identification is the most prevalent method of assessment (Russell et al., 2001), several researchers have recommended that the assessment of sexual orientation be carried out along its multiple components, which include sexual behavior, fantasy, identity, and attraction (Russell et al., 2001; Savin-Williams & Reams, 2006). Other researchers have proposed examining the components of sexual orientation over time (Savin-Williams & Reams, 2006) because during adolescence the only constant is change (Tharinger & Wells, 2000). Despite these suggestions, at present there is not one standard that is predominantly endorsed and used to identify LGBQQ youth (Russell et al., 2001), making comparison of results across studies difficult.

In this study it is impossible to determine whether youth who identified their sexual orientation as LGBQ were referring to their behavior, attraction, fantasy, or another dimension of sexual orientation. Also, it is impossible to ascertain whether youth who identified as unsure were actually still grappling with their sexual orientation or perhaps did not fully understand the question as posed. Also notable is the fact that nearly 4% of respondents did not answer the sexual orientation question, causing one to wonder whether some students simply did not identify with any of these labels. The avoidance or rejection of labels altogether is a topic that has recently been circulating among experts in the field (Elze, 2005; Savin-Williams, 2005).

In this study, youth were not asked to reveal whether they are open about their sexual orientation in their school or to certain members of the school community.
Therefore, one cannot determine how this factor would have affected the students’ views of their experiences and perceptions of adult support at school. However, it is important to reiterate here that the decision to disclose sexual orientation to others is definitely the adolescents’ choice but the fear entailed in disclosing, as a result of society’s homophobia, is not the teen’s choice.

This study falls short in identifying who the supportive adults are or whether the support they provide is unique to LGBQ youth. Do these adults have training that guides their support of LGBQ youth? Did any of the supportive adults disclose their sexual orientation to LGBQ youth? Such questions are important if one wants to identify protective factors that are unique to LGBQQ youth, which is an area that needs further research (Russell, 2005). Moreover, this study does not rely on multiple informants or methods, or longitudinal data. The results are based only on the self-report of youth at a particular point in time, treated almost like a discrete entity.

Although this study had a large sample extending over an entire school district, its results cannot be readily generalized to other contexts, throughout Canada or BC, or to future times. In his book The New Gay Teenager, Savin-Williams (2005), alerts his audience that one cannot learn about the experiences of today’s adolescents from the earlier experiences of older lesbian and gay individuals. Research with LGBQQ youth needs to keep up with changes (Elze, 2005). For instance, youth are becoming aware of their sexual orientation and disclosing at younger ages (D’Augelli, 1998; Elze, 2005; Savin-Williams, 2005). Consequently, these results should be viewed in relation to its time and place.
The results of this study are correlational and therefore cannot be used to determine causality. However, the present results are consistent with the notion that the availability of supportive adults at school may serve as a protective factor in the social experiences of LGBQQ youth. In order to determine whether the availability of adult support causes LGBQQ youth to enjoy more positive social experiences at school, future research will need to consider experimental studies that afford appropriate controls and lend themselves to causal interpretations. It is hoped that the present study serves as a backdrop and perhaps even an impetus for such research in the future.

Some of the analyses conducted in the present study utilized single item measures, a key concern in this study. In some cases single items were used to avoid multicollinearity, which leads to mistaken relationships between dependent and independent variables.

Within the present study, the observed effect sizes (see Cohen, 1992) of some of the findings were quite small, leading one to question the meaningfulness and importance of some of the findings obtained. As well, within this literature, there are few studies exploring similar variables; therefore, more similar studies are needed in order to confidently evaluate the magnitude of the differences reported herein.

Despite its existing limitations, this study had several strengths, as well as, several elements that researchers view as indicators of the advancement of the field (see Elze, 2005; Russell, 2005; Williams et al., 2005). Specifically, this study included a large initial sample taken from 18 different secondary schools in a large urban school district, with a high participation rate (approximately 80%), which lends some confidence to the representativeness of the results.
Second, this study examined the differences between lesbian/gay, bisexual, and unsure youth, treating each group separately, rather than classifying them in one homogeneous group of “sexual minority” youth. As a result, this study allowed for an examination of variations in social experiences across different sexual orientations.

Third, this study investigated a potential moderator, adult support, which could promote the resilience of LGBQQ youth. Elze (2005) proposed that one of the positive trends in research on LGBQQ youth is the examination of the adaptive strengths along with the mediators and moderators affecting their functioning.

Fourth, this study specifically investigated sexual orientation-based victimization, which is a risk factor unique to LGBQ youth; thus joining the small but emerging body of research that is moving towards recognizing conceptually and theoretically exclusive risk and protective factors for sexual minority youth (see Russell, 2005).

Future Directions

Clearly, the results of this study verify that more research is needed in order to gain a deeper understanding of the unique protective factors for LGBQ youth at school. This section considers a few possibilities for future research examining the experiences of LGBQQ youth at school.

First, examining the experiences of LGBQQ youth from different ethnic backgrounds would provide a better understanding of the common and unique experiences that LGBQQ youth face, as well as, the expectations that youth have for adults at school. Perhaps, LGBQQ youth from some backgrounds might not expect adults at school to play a significant protective role. As large scale, ethnically diverse samples become available within this research literature, research in this area can begin to
explore variations in the social experiences of LGBQQ youth as a function of race and cultural differences.

Further research is also needed to gain a greater understanding of how gender influences the experiences of LGBQQ youth. Although in this study, gender differences were not observed in most cases, other studies’ results had demonstrated otherwise (e.g., Russell et al., 2001; Williams et al., 2005).

As mentioned earlier, the sexual orientation of supportive adults at school is not identified. It would be interesting to find out whether LGBQQ youth would feel a greater sense of safety and belonging at school if they had support from LGBQQ adults. In some interviews LGBQQ youth were hoping for representation, finding real-life examples of people like them (Little, 2001; Telljohann & Price, 1993). For example, one study found that receiving support from LGBQQ youth was linked to positive self-esteem. It would informative to find out whether support from LQGBQQ adults could be positively linked to protective factor for LGBQQ youth. Moreover, whether LGBQQ adult support would have a more positive impact on the experiences of LGBQQ youth at school in comparison to heterosexual adults would be an intriguing question to investigate. Goodenow et al. (2006) found that LGB youth in schools with support groups specifically for LGBQQ youth reported lower victimization. A question worth pursuing would be examining whether support groups uniquely explain LGBQQ youth sense of safety above and beyond perceptions of teacher support at school.

Also, the voices of LGBQ youth need to be heard. Interviews with youth in BC where they can share their perceptions of what adult support looks like, in their own words, would be helpful in guiding future research. Understanding the diversity of their
experiences is critical because LGBQQ individuals are not one homogeneous group and it is vital to advance the literature on the prevalent risk and protective factors that are unique to every group. Looking at the gender experiences within every group would also be informative. The variability among LGBQQ youth underscores the need to conduct more studies identifying the common and unique protective factors and risk factors for every group.

To advance the field, multiple questions on sexual orientation would make the results more meaningful. How does sexual behavior versus sexual attraction play a role in students' sense of safety and belonging at school? Longitudinal studies would be needed to make more sound decisions regarding how the perceptions of adult support at school change over time for LGBQ youth and to find out the stability of sexual orientation over time for youth and how it relates to their sense of safety and belonging at school.

Asking teachers and school staff about the explicit steps they take to promote a sense of belonging among LGBQ youth and asking all students about the explicit actions school personnel take to promote the sense of safety and belonging among LGBQ youth would inform whether there is agreement on what is working for LGBQ youth.

Finally, it would be worthwhile to examine what variables could possibly moderate the relationship between sexual orientation victimization and school attendance for LGBQQ youth (e.g., Gay-Straight Alliances).
Conclusion

As demonstrated by the results of this study, the role of supportive adults in predicting the safety, belonging and school attendance of LGBQQ youth, though to varying degrees for every group, is significant. Adult practices that foster LGBQQ youth safety and belonging at school need to be identified and incorporated into adult training and awareness that explicitly helps them in supporting LGBQQ youth at school (Russell et al., 2001).

Undoubtedly, the majority of LGBQQ youth grow up to be contributing members of their societies (Russell, 2005; Savin-Williams, 2005). However, before an LGBQQ youth grows up to a contributing citizen, she/he has the right to a safe learning environment. We, as educators and educational researchers, cannot dismiss the diminished sense of safety and school belonging reported by LGBQQ youth. Therefore, the role of supportive adults in secondary school is not a bonus; it is a must. As Little (2001, p. 108) expressed:

“We must remember that the challenges of youth can become the assets of adulthood but for that to happen GLBTQ youth need support, role models, and someone to accept them for who they are.”

After all, the presence of adult support for LGBQQ youth, like for all youth, is about ensuring that youth are granted two of the most fundamental rights: the right to education and the right to safety.
References


International Conference in Statistics (pp. 245-260). Tampere, Finland: University of Tampere.


Appendix A

Table A1

Results of the Fisher's $r$ to $z$ Transformation for the Four Sexual Orientation Groups' Perceptions of Adult Support and their Social Experiences in High School: Lesbian/Gay (L/G) & Bisexual (B) Youth

<table>
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<td></td>
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Table A2

Results of the Fisher’s $r$ to $z$ Transformation for the Four Sexual Orientation Groups’ Perceptions of Adult Support and their Social Experiences in High School: Lesbian/Gay (L/G) & Unsure (Questioning) (Q) Youth

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Table A3

Results of the Fisher’s $r$ to $z$ Transformation for the Four Sexual Orientation Groups’ Perceptions of Adult Support and their Social Experiences in High School: Lesbian/Gay (L/G) & Straight (S) Youth

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Table A4

Results of the Fisher’s $r$ to $z$ Transformation for the Four Sexual Orientation Groups’ Perceptions of Adult Support and their Social Experiences in High School: Bisexual (B) & Unsure (Questioning) (Q) Youth

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Table A5

Results of the Fisher’s r to z Transformation for the Four Sexual Orientation Groups’ Perceptions of Adult Support and their Social Experiences in High School: B & U Youth | Experiences in High School: Bisexual (B) & Straight (S) Youth

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Table A6

Results of the Fisher's $r$ to $z$ Transformation for the Four Sexual Orientation Groups’ Perceptions of Adult Support and their Social Experiences in High School: Straight (S) & Unsure (Questioning) (Q) Youth

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Appendix B

The University of British Columbia
Office of Research Services
Behavioural Research Ethics Board
Suite 102, 6190 Agronomy Road, Vancouver, B.C. V6T 1Z3

CERTIFICATE OF APPROVAL - FULL BOARD

<table>
<thead>
<tr>
<th>PRINCIPAL INVESTIGATOR:</th>
<th>INSTITUTION / DEPARTMENT:</th>
<th>UBC BREB NUMBER:</th>
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<tr>
<td>Shelley Hymel</td>
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INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:

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<td>Point Grey Site</td>
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<tr>
<td>Other locations where the research will be conducted:</td>
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CO-INVESTIGATOR(S):

Lina Darwich

SPONSORING AGENCIES:

N/A

PROJECT TITLE:

Does Adult Support at School Make a Difference in the Social Experiences of Sexual Minority Youth?

REB MEETING DATE: | CERTIFICATE EXPIRY DATE:

December 14, 2006 | December 14, 2007

DOCUMENTS INCLUDED IN THIS APPROVAL:

<table>
<thead>
<tr>
<th>Document Name</th>
<th>Version</th>
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The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

Approval is issued on behalf of the Behavioural Research Ethics Board and signed electronically by one of the following:

Dr. Peter Suedfeld, Chair
Dr. Jim Rupert, Associate Chair
Dr. Arminee Kazanjian, Associate Chair
Dr. M. Judith Lynam, Associate Chair
Dr. Laurie Ford, Associate Chair