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Relationships among school climate, school safety, and student achievement and well-being: a review of the literature

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School climate, safety and well-being of students are important antecedents of academic achievement. However, school members do not necessarily experience school climate in the same way; rather, their subjective perceptions of the environment and personal characteristics influence individual outcomes and behaviours. Therefore, a closer look at the relationship between school climate, safety, well-being of students and student learning is needed. This review of the literature explores the relationship among school climate, school safety, student academic achievement and student well-being. Using a systematic review approach, we conducted an overview of empirically based research findings and technical reports that address the following aspects: (a) school climate as a social construct and its connection with school safety; (b) the conditions that contribute to an environment in which students feel safe; (c) the characteristics of particular groups of students who feel unsafe; and (d) the impact of a negative school environment (e.g. a school environment where bullying, victimisation and violence are prevalent) on student achievement, ultimately, secondary school completion and student well-being. We summarise the state of school climate research, discuss the implications for school policies and practices in the areas of school climate, safety and student success, and provide recommendations for future research.

Introduction

Student achievement is the top priority in education. Recognising the complexifying influence of such factors as gender, race, ethnicity, ability, sexual orientation, and social class, education and schooling still remain the major influences on student achievement. Insofar as teaching, attendance, assessment and evaluation are important aspects in the overall students' academic achievement picture, they are all governed by the way students feel in their school environment. School culture that is not hospitable to learning is detrimental to student achievement (Watson, 2001). School safety is necessary if learning and a healthy development is to flourish (Devine & Cohen, 2007). Therefore, a closer look at the relationship of specific aspects of school culture, like school climate, safety and well-being of students, to student learning is needed (MacNeil *et al.*, 2009).

The feelings and attitudes that are elicited by a school's environment are often referred to as *school climate* (Loukas, 2007). Closely related to school climate (and often, used interchangeably) is the notion of *safety* or *safe learning environment*. A safe and supportive school environment in which students flourish emotionally, socially

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and academically is largely based on the quality of relationships between many individuals, including students, parents, school personnel and the community (Demaray *et al*., 2012; Loukas, 2007). In addition to individual characteristics, personality and biological predispositions, all children and adolescents' behaviours are crucially influenced by factors related to family relationships, school environment, people in the neighbourhood and the broader cultural context (Rigby, 2012). These factors both affect and help to explain the broad concept of school climate.

While some school environments feel friendly, inviting and supportive, others feel exclusionary, unwelcoming and often unsafe. Therefore, it has been found that school climate can have a positive influence on the health of the learning environment by yielding favourable educational and psychological outcomes for students and school personnel; conversely, it may also become a significant barrier to learning by preventing optimal learning and development (Freiberg, 1998; Hoy & Hannum, 1997; Johnson & Johnson, 1997; Kuperminc *et al*., 2001; Manning & Saddlemire, 1996; Maslowski, 2001). One of the significant outcomes of negative school climate is bullying (Craig & McCuaig-Edge, 2011; Craig & Pepler, 2007). This and other social problems have unfortunate implications for particular student sub-populations in Canada by affecting their emotional well-being, academic performance and social outcomes.

This review has set out to address the following overarching research question: *What is the relationship among school climate, school safety, student well-being, and student achievement?* Using a systematic review approach (Gough *et al*., 2012; Thomas & Harden, 2008), we conducted an overview of empirically based research findings and technical reports, written in English, which address the following research sub-questions:

(a) How is school climate as a social construct connected with school safety?
(b) What are the conditions that contribute to an environment in which students feel safe?
(c) What are the characteristics of particular groups of students who feel unsafe?
(d) What is the impact of a negative school environment (e.g. a school environment where bullying, victimisation, and violence are prevalent) on student achievement and student well-being?

Upon detailing the review method and synthesising the convergences and divergences of the findings, we summarise the state of school climate research, discuss the implications for school policies and practices in the areas of school climate, safety, and student success, and provide recommendations for future research.

Review method

In this systematic literature review, we followed three stages that comprised a thematic synthesis: (i) coding of text line-by-line; (ii) development of descriptive themes; and (iii) generation of analytical themes. According to Thomas and Harden (2008, p. 1), 'while the development of descriptive themes remains "close" to the primary studies, the analytical themes represent a stage of interpretation whereby the reviewers "go beyond" the primary studies and generate new interpretive constructs, explana-

tions or hypotheses'. The researchers did not employ computer software to facilitate the thematic synthesis in this review, but instead collaborated in the line-by-line coding of all resources and the development of descriptive and analytical themes.

Search strategy

Considering that the systematic review approach 'aims to bring research closer to decision-making' (Thomas & Harden, 2008, p. 2), the validity and usefulness of a systematic review is largely determined by the rigour of its search strategy, the criteria for inclusion, and the recommendations made. Prior to searching multiple databases, literature search strategy as well as inclusion and exclusion criteria were discussed and agreed upon by the members of our research team. We agreed that including international perspectives about school safety would be helpful in this review. Therefore, relevant handbooks containing various international perspectives were consulted. The team agreed that reviewing systematic reviews and primary studies about policies and programmes pertaining to school safety and violence would enrich this review. Furthermore, the reference lists of reviews and primary studies were searched for relevant publications or technical reports that may not have been previously found in electronic searches.

Handbooks and other systematic reviews that were reviewed in this study contain already assessed literature that provides an overview of past research done in the field of school safety. Primary studies are used in this review to assess more recent contributions to the field of school safety. The selection of the key search words included: student achievement, academic achievement, achievement, school climate, school environment, school safety, safe schools, student well-being and student health. Online searches for systematic reviews and primary studies were undertaken using the following databases: Google Scholar, ERIC, PsychINFO, Cochrane Database, EBSCOhost, JSTOR and ProQuest. While the most helpful databases were ERIC and EBSCOhost, the Internet search was not exhaustive because many of the resources were found in the handbooks and systematic reviews.

Criteria for inclusion

The criteria for inclusion of the sources in this review were first framed by the Advisory Committee at the school district that commissioned this project, and were later expanded upon by the researchers. Our criteria for inclusion were as follows:

- Claimed reviews contained a systematic literature review or meta-analysis comprising of search strategies and/or criteria of inclusion;
- Claimed primary studies adopted a clearly explained study design and methodology;
- All reviews and primary studies were based in school settings;
- All reviews and primary studies were published between 1963 and 2013;
- Studies were either located in North America or Europe (Note: The two handbooks sometimes referred to locations outside North America and Europe).

Based on the above-mentioned inclusion criteria, this review has drawn from 20 systematic reviews, 157 primary studies and 13 non-scholarly (not peer-reviewed) resources that were published between 1963 and 2013 (one systematic review is an unpublished dissertation, while one of the primary studies was also an unpublished dissertation). Geographically, the sources overwhelmingly represented North America (106 from the USA, 32 from Canada) and Europe (16). In addition, several sources were from Asia (1), Australia (2), Middle East (1), or had an international focus (21) (note that some studies detailed more than one locale). Because the results of our systematic review yielded findings prevalently from the North American and European sources, we delimit our discussions to these contexts and locales, at the same time recognising the potential of their significance for consideration, transferability and applicability to other contexts.

The focus on school climate

Although school climate has been a focus of research for many years and can be traced back a century, the scientific study of school climate was not undertaken until the 1950s with the birth of organisational climate research (e.g. for a historical overview, see Zullig *et al.*, 2010). It was not until late 1970s that researchers attempted to associate climate with student outcomes in schools (Brookover *et al.*, 1978). The notion continues to be examined and redefined as a result of its significant influences on and associations with educational outcomes (Marshall, 2004).

Hoy and Miskel (2005) defined school climate as 'the set of internal characteristics that distinguish one school from another and influence the behaviours of each school's members' (p. 185). Kottkamp (1984) suggested that climate consists of shared values, interpretations of social activities, and commonly held definitions of purpose. It is also important to consider how these elements of climate interact with each other. In more specific terms, school climate is considered a relatively stable property or enduring quality of the school environment. It is the result of participants' collective perceptions of behaviour in schools and this affects their own experiences and behaviours (Hoy *et al.*, 1991; Hoy & Miskel, 2005). A breadth of definitions of school climate has produced multiple understandings of what it encompasses. However, the concept is often still merely a slogan rather than a carefully defined and meaningful construct (Hoy & Hannum, 1997). In order to address the definitional challenge, we provide a brief account of metaphors, instruments and perspectives on the concept of school climate.

The frameworks for studying school climate usually use the metaphors of *personality/openness* and *health*, or a combination of both (Hoy *et al.*, 2002). In their pioneering work on school climate, Halpin and Croft (1963) described organisational climate as the 'personality' of the school and conceptualised it along a continuum from open to closed. The *openness of organisational climate* is typically measured by exploring open and authentic relationships between teachers and principals and among teachers themselves. Typically, four to six dimensions of day-to-day relationships of teachers and school principals are measured by the Organizational Climate Description Questionnaire (OCDQ), versions of which vary from 34 (Hoy & Tarter, 1997) to 64 Likert items (Halpin & Croft, 1963).

Organisational health is another perspective for examining school climate (Hoy & Feldman, 1987). Miles (1969) was first to define a healthy organisation as the entity that 'not only survives in its environment, but continues to cope adequately over the long haul, and continuously develops and expands its coping abilities' (p. 378). The health of the organisational climate in schools is also concerned with positive interpersonal dynamics between teachers and principals as well as among teachers. However, the health framework considers relationships between the school and students, and the school and the community. According to Hoy *et al.* (2002), a healthy school climate is imbued with positive student, teacher and administrator interpersonal dynamics. In such a climate, teachers like their colleagues, their school, their job; they believe in themselves and their students; they are driven by a quest for academic excellence and set high, but achievable goals for themselves and their students. Students work hard and respect others who do well academically. Principals have high expectations for teachers and go out of their way to help teachers in a friendly and supportive way. Moreover, healthy schools have good relationships with the community. The six health factors are measured by a 44-item scale Organizational Health Inventory (OHI) (Hoy & Tarter, 1997).

Both openness and health climate perspectives have been used by researchers to analyse the environment of school workplaces (Hoy & Sabo, 1998; Hoy *et al.*, 1991; Tarter *et al.*, 1989). Despite the differences in perspectives, there is considerable overlap in the frameworks and their measures. Recognising that open schools tend to be healthy ones and healthy schools tend to be open, Hoy *et al.* (2002) developed a perspective that captures both the openness and health frameworks. The six dimensions of the OCDQ and the six aspects of the OHI were reduced to four general dimensions of climate that captured both openness and health: (i) *environmental press*—the relationship between the school and community; (ii) *collegial leadership*—openness of the leader behaviour of the principal; (iii) *teacher professionalism*—openness of the teacher–teacher interactions; and (iv) *academic press*—the relationship between the school and students. These four dimensions assess three vertical linkages (institutional, administrative and teacher) as well as horizontal relationships among teacher colleagues.

School climate is often associated with and viewed through the lens of *school safety*. A significant body of research posits that safe school environments are essential for learning (e.g. Cornell & Mayer, 2010; Craig *et al.*, 2010; Safe Schools Action Team, 2008). A safe school environment is commonly described (e.g. Cornell & Mayer, 2010; Mayer & Furlong, 2010; Robinson & Espelage, 2011) in relation to students' feelings of safety in an orderly environment free from bullying, victimisation and violence. In other words, *school safety* is a social construction; its definition is often subjective and coloured by one's social location, cultural experiences and school context (Cornell & Mayer, 2010; Williams, 2005). In the field of school safety research, *school safety* was initially defined as the presence or absence of weapons and/or homicides in school settings (Skiba *et al.*, 2006). As the relationship between everyday disruptions and overall school safety became clearer, the understanding of *school safety* evolved. Currently, there exists a fairly comprehensive perception of *school safety* that not only focuses on reaction and response, but gives more attention to prevention and early identification/intervention (Skiba *et al.*, 2006). Many researchers agree that the

school climate, feelings of school attachment/connectedness and personal safety are some of the most important variables for understanding school safety (Gottfredson, 2001; Greene, 2005; Karcher, 2004; Whitlock, 2006). A more comprehensive understanding of school safety has enabled policymakers to craft safe schools policies of a more comprehensive nature to especially focus on school violence prevention and intervention, which in turn, promotes more positive physical school environments.

Increased media and legislative attention to school violence during the past several decades have resulted in a special focus on safety concerns within the school environment (Borum *et al.*, 2010; Mayer & Furlong, 2010). The safety of students continues to be a concern because of increasing low-level violence (e.g. bullying) in schools that are related to antisocial and aggressive behaviours among students (Alessandri *et al.*, 2012; Jimerson *et al.*, 2012). These types of behaviours occur largely because the school environment serves as a vehicle for them.

The National School Climate Council (2007) posits that school climate is based on patterns of people's experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organisational structures. Stemming from this perspective, positive school climate is defined as 'norms, values, and expectations that support people feeling socially, emotionally and physically safe' (p. 4). School climate is also understood as a by-product of the quality of the interpersonal relationships among students, parents, staff and administrators. Therefore, a positive and healthy school climate is fostered when there is a shared vision of respect and caring for all people by all people in the school.

Similarly, Cohen *et al.* (2009) defined school climate as 'the quality and character of school life ... based on patterns of people's experience of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures' (p. 10). Furthermore, Cohen *et al.* (2009) noted that school life refers to the level of safety a school provides, the kind of relationships that exist within and the larger physical environment in addition to the shared vision and participation in that vision by all. Notably, this perspective highlights both social and physical aspects of school climate and implies the whole school as the appropriate measurement unit.

Components and conditions of a positive school climate

Overall, scholars recognise a challenge in providing a comprehensive framework for dimensions of school climate, as there is not yet a consensus about which dimensions are essential to measuring school climate validly. Several noteworthy attempts have been made to identify key elements of school climate. The National School Climate Center (2007) identified five elements of school climate: (1) *safety* (e.g. rules and norms, physical security, social–emotional security); (2) *teaching and learning* (e.g. support for learning, social and civic learning); (3) *interpersonal relationships* (e.g. respect for diversity, social support from adults, social support from peers); (4) *institutional environment* (e.g. school connectedness, engagement, physical surroundings); and (5) *staff relationships* (leadership, professional relationships). These five elements require careful examination as stand-alone concepts and also as a whole in order to understand

how each element interacts with others. More recently, a review of school climate research (Thapa *et al.*, 2013) outlined five essential areas of focus or dimensions of school climate: (i) *safety* (e.g. rules and norms, physical safety, social–emotional safety), (ii) *relationships* (e.g. respect for diversity, school connectedness/engagement, social support, leadership, and students' race/ethnicity and their perceptions of school climate), (iii) *teaching and learning* (e.g. social, emotional, ethical and civic learning; service learning; support for academic learning; support for professional relationships; teachers' and students' perceptions of school climate), (iv) *institutional environment* (e.g. physical surrounding, resources, supplies), and (v) the *school improvement process* (p. 358).

Notwithstanding the contributions and value of the above frameworks, we believe that a broader categorisation of school climate dimensions is needed. Therefore, in our conceptualisation (see Table 1) we follow the lead of researchers (e.g. Cohen, 2006; Loukas, 2007; Marshall, 2004; Wang & Holcombe, 2010; Voight *et al.*, 2011; Zullig *et al.*, 2011) that viewed it as a multidimensional construct including broadly defined physical, social and academic dimensions. Loukas (2007) argued that the climate of a school is not necessarily experienced in the same way by all of its members; rather, there is variability in individual perceptions of a school's climate. It is possible that individuals within the same school have different perceptions of school climate owing to the differences in their experiences, perspectives, or roles in the school structure (Booren *et al.*, 2011). These individual subjective perceptions of the environment influence individual outcomes and behaviours. Moreover, individual characteristics may impact these perceptions: individuals with an optimistic outlook may view the climate as more positive, while those who are pessimistic or aggressive may perceive their school climate more negatively.

As school climate influences not only the day-to-day experiences of the teachers and other on-site professionals, but also impacts the quality and effectiveness of the

Table 1. Dimensions of school climate

Physical	Social	Academic
• Appearance of the school building and its classrooms • School size and ratio of students to teachers in classrooms • Order and organisation of classrooms in the school • Availability of resources • Safety and comfort	• Quality of interpersonal relationships between and among students, teachers, and staff • Equitable and fair treatment of students by teachers and staff • Degree of competition and social comparison between students • Degree to which students, teachers, and staff contribute to decision-making at the school	• Quality of instruction • Teacher expectations for student achievement • Monitoring student progress and promptly reporting results to students and parents

educational experience for students, researchers emphasised the significance of a positive school climate in satisfying the academic, emotional and social needs of students (Black, 2010; Cohen, 2006). The aforementioned multidimensional framework provides a foundation to examine the literature related to the impact of physical, social and academic dimensions of school climate on students.

How does the physical dimension of school climate impact students?

Challenging school climates with a disorderly school environment are characterised by the presence of vague rules and expectations, low academic achievement and high antisocial behaviours. Such climates can be highly problematic for students who need clear expectations and structure (Jimerson *et al.*, 2006). Another concern is the quality of the educational infrastructure and its relation to student outcomes, including both achievement and attitude, as well as teacher attitude and behaviour (Uline & Tschannen-Moran, 2008). Researchers investigating the impact of school facility condition on student learning and behaviour, as well as teacher turnover, reported a positive relationship between facility condition and student achievement (O'Neill & Oates, 2001). Conversely, school buildings in poor shape lead to reduced learning; while poorly managed schools lead to poor achievement (Buckley *et al.*, 2004). Several other reviews documented relationships between various school building design features and academic outcomes (Earthman, 2002, 2004; Higgins *et al.*, 2005; Lemasters, 1997; Schneider, 2002). Specific building features related to human comfort that have been shown to be related to student achievement include building age, climate control, indoor air quality, lighting, acoustical control, design classifications and overall impression (Uline & Tschannen-Moran, 2008).

There is likely a complex dynamic of how physical features may influence individual attitudes and behaviours. In a study of the relationship between building condition and learning climate, learning climate was perceived to be related to overall building condition, size and organisation of instructional spaces, and ongoing maintenance (Lowe, 1990). Learning climate in this study was defined in terms of teacher, student and parent perceptions about self, student achievement, organisational rules and policies, and the facility itself. In another study, teachers perceived that cleanliness, orderliness and the general character of a school building influenced student behaviour (Lackney, 1996). The quality of school physical building has also been related to student attitudes and behaviour, including vandalism, absenteeism, suspensions, disciplinary incidents, violence and smoking (Schneider, 2002). The study of specific design classifications and features and various other discrete physical building conditions (Uline & Tschannen-Moran, 2008) underscored the importance of perceptions of building quality in fostering school climate that is conducive to student learning. Research increasingly shows that there is a clear link between environmental quality of schools and educational performance (Berry, 2012; Marzano, 2003; Rutter *et al.*, 1979; Wentzel & Watkins, 2002): (a) facility management systems determine environmental quality in schools; (b) the quality of the school environment shapes attitudes of students, teachers and staff; (c) attitudes affect teaching and learning behaviour; (d) behaviour affects performance; and (e) educational performance determines future outcomes of individuals and society as a whole.

The physical conditions of classrooms and class size greatly influence the order/discipline in schools (Gregory *et al.*, 2010; Osher *et al.*, 2010). As one example, schools with higher student–teacher ratios have more negative teacher attitudes, lower expectations of students, higher student suspensions and poorer academic performance (Jimerson *et al.*, 2012). In contrast, differences in school size have not shown a consistent effect on school climate and student achievement (Ma & Klinger, 2000).

How does the social dimension of school climate impact students?

At the heart of an excellent school is a school climate that is defined by excellent teaching, high-quality leadership, motivated staff and students, and a sense of community (Alliance for the Study of School Climate, 2011). The quality of relationships is pivotal in shaping school climate. Student–teacher, teacher–teachers, student–student (peer), teacher–principal, parent–teacher and school–community relationships are all important in shaping the social dimension included in school climate (Demaray *et al.*, 2012). Bosworth *et al.* (2011) concluded that organisation/discipline and caring relationships are the two components of a school's climate that determine perceived safety in schools. They continued that in a well-organised school where rules are clearly outlined, adults are caring towards the students, and where relationships between adults were respectful, professional and caring, people in the school felt safer.

Jimerson *et al.* (2012) described the importance of relationships in schools in relation to students' self-perceptions and behavioural outcomes: 'Positive relationships are likely to result in students making increased positive life-course decisions and having more positive perceptions of their self-control, cooperation, self-efficacy, cognitive abilities and social problem-solving ability' (p. 9). Further, teachers' feelings toward students help to form the basis of the relationships they have with their students. Positive relationships help to create a school environment in which students are more likely to feel safe. High-quality relationships among students and teachers decrease the probability of violence (Loukas, 2007). It is important that teachers also receive the support they need from the principal and other school administrators in schools in order to adequately support students (Hansen, 1991; Hoy & Miskel, 2005). Hoy and Miskel (2005) discussed the importance of having a healthy *informal organisation*—the interlocking social structures governing people's practice, the network of social relationships that form as people interact with each other in a workplace and aspects of the organisation (e.g. actual power vs formal power) that are absent or vaguely mentioned in the formal structure.

Greene (2005) emphasised that school climate has a large impact on the nature and scope of school violence and prevention. Demaray *et al.* (2012) noted how both perpetrators and victims of school violence tended to perceive lower amounts of positive social supports from significant peers and adults in their lives compared with students who are uninvolved in school violence. Student support (from peers, teachers and parents), school safety and academic achievement are interactive and oftentimes interdependent (Hoy & Hannum, 1997; Osher *et al.*, 2012). Strong and consistent sources of student support and care can act as a protective factor to combat aggressive and antisocial behaviours in students (Papacosta, 2012).

When working with students exhibiting antisocial and aggressive behaviours, school systems and professionals are presented with a challenge to minimise the effect of personal risk factors by maximising and emphasising the development of personal protective factors (Jimerson *et al.*, 2012). This means that schools' systems (especially teachers and principals) need to know and understand their students' personalities and social circumstances in order to provide them with equitable and fair treatment. Personality is viewed as a complex self-regulatory system including habitual behaviours, knowledge structures, and coping mechanisms; therefore, assessing individual differences in personality can be a useful approach in understanding aggressive conduct (Alessandri *et al.*, 2012). Beyond personal factors, schools may also shape students' behaviour through group (e.g. peer affiliations) and school-wide (e.g. disorderly school environment) influences (Jimerson *et al.*, 2012).

An important factor that determines the strength of social ties in schools is collaboration in decision-making processes (Loukas, 2007). This sort of collaboration is often navigated by the school leader/principal. Principals, who share decision-making responsibilities with other school staff and even students, give agency to all those involved in the educational experiences. By doing this, principals were found to influence teachers to give their students more opportunities to become involved in decision-making processes (Kelley *et al.*, 2006; Shochet & Smith, 2012). Although the issue of student involvement in schools' decisions-making processes remains a contested viewpoint as to the extent and areas of involvement, researchers (Fielding, 1997; Huddleston, 2007; Rudduck & Flutter, 2000) argued that it is important to recognise students' social maturity and experience by giving them responsibilities and opportunities to share in decision-making that extends beyond student-related issues into wider aspects of school life, as well as to society beyond the school. According to Huddleston (2007), students should have opportunities for involvement in all major areas of school life, in particular in a school's ethos and climate—including rules, rewards and sanctions; curriculum, teaching and learning; and, management and development planning. Similarly, others have found that involvement in decision-making can be a valuable guide to school improvement, restructuring and programmatic efforts (Kushman, 1997; Hord & Robertson, 1999; Rudduck & Flutter, 2004). As a result of involvement, students feel more connected to their school, and school connectedness is considered 'a powerful predictor of adolescent health and academic outcomes and violence prevention' (Cohen *et al.*, 2009, p. 185).

How does the academic dimension of school climate impact students?

School climate is considered to be one of the most important ingredients of a successful instructional programme. As Hoyle *et al.* (1985) argued, 'without a climate that creates a harmonious and well-functioning school, a high degree of academic achievement is difficult, if not downright impossible to obtain' (p. 15). It has been found that the presence of a positive school climate is associated with higher student achievement and fewer discipline problems (e.g. Bulach & Malone, 1994; Bulach *et al.*, 1995; Chiu & Chow, 2011; Creemers & Reezigt, 1999; Freiberg *et al.*, 2009). A positive school climate can enhance staff performance, promote higher morale and improve student achievement. In contrast, a negative school climate can be a signifi-

cant barrier to learning (Freiberg, 1998; Goddard *et al.*, 2000; Heck, 2000). As an example, the competition among students can play a role in the social and academic dimensions of school climate by decreasing the connectedness and belonging. In contrast, concerted effort can result in improved student behavioural and emotional functioning and, in turn, increased academic motivation and achievement (Loukas, 2007).

Classrooms serve as quintessential settings where students and teachers build and negotiate a climate that influences academic, behavioural and social adjustment of all students within the group (Farmer *et al.*, 2010). As Urban (1999) argued, unless students experience a positive and supportive climate, some may never achieve the most minimum standards or realise their full potential. It is for this reason that teachers' skills and personal characteristics can serve as risk factors or protective factors for students' development of antisocial and aggressive behaviours (Farmer *et al.*, 2010). Teachers' expectations for students influence the academic performance of their students. When teachers expect students to perform poorly, students doubt their abilities and become disengaged from the learning process (Shochet & Smith, 2012). On the contrary, in schools with a high level of academic press (Hoy *et al.*, 2002), teachers set high goals, the principals assist in achieving these goals, while students respond positively to the challenge of these goals and they work hard to achieve them. Academic press has repeatedly been demonstrated to be strongly related to student achievement (e.g. Hoy *et al.*, 1998; Hoy & Sabo, 1998; Hoy *et al.*, 1991, Tschannen-Moran & Tschannen-Moran, 2011; Tschannen-Moran *et al.*, 2006). Hoy *et al.* (1990) found that long-term improvement in academic achievement was related to schools with strong academic emphasis within healthy and open school climates.

The quality of classroom instruction is influenced by teachers' and students' personal factors along with some factors beyond the immediate control of school staff (e.g. school size, location and the average social economic status (SES) of the school) (e.g. Ma & Klinger, 2000). Students who attend schools with a higher mean SES are more likely to succeed academically, particularly in reading, writing and mathematics.

Furthermore, Ma and Klinger (2000) found that disciplinary climate, concerning rules and compliance, was the most important determinant of academic achievement. Disciplinary climate falls under the physical dimension of school climate as discussed by Loukas (2007). Moreover, DeAngelis and Presley (2011) noted a correlation between schools with high levels of safety and order (disciplinary climate) and schools with teachers who have high qualifications—schools with teachers who have higher qualifications tend to be employed in schools that have higher levels of safety and order. In turn, schools that are perceived to have positive/healthy physical and social environments generally have higher student achievement (DeAngelis & Presley, 2011). Finally, among the controllable factors that influence student achievement and outcomes, teachers offer the greatest opportunity for improving the quality of learning and social outcomes experienced by students (Stronge, 2010). Stronge summarised the importance of the high-quality teachers:

> If we want to improve the quality of our schools and positively affect the lives of our students, then we must change the quality of our teaching. This is our best hope to systemati-

> cally and dramatically improve education. We can reform the curriculum but, ultimately, it is teachers who implement it; we can provide professional development on new instructional strategies but, ultimately, it is teachers who deploy them; we can focus on data analysis of student performance but, ultimately, it is teachers who produce the results we are analyzing. (p. 1)

Not only do teachers' qualifications, perceptions of their school climate and their implementation of the curriculum influence students' own perceptions of school climate and overall achievement, but according to Ma and Klinger (2000), 'low student academic achievement correlated with negative family attitudes and beliefs' (p. 51). In fact, four in five Grade 6 students agreed that what their parents thought of them was important, most students noted that their parents expected too much from them academically and boys reported feeling more pressure to do well at school than girls (Freeman *et al.*, 2011). Therefore, high-quality teachers who have a positive perception of the climate of the school they work in and students who have positive experiences with their teachers and parents are more likely to have a higher academic achievement.

Understanding school safety and schools' responses to bullying and school violence

As mentioned above, the subjective perceptions of the environment influence individuals' views about the level of school safety and the overall school climate. The most commonly explored aspects of safety are those related to bullying and violence, which unfortunately continue to appear to be part of the school experience (Lunenburg, 2010; Wolke & Woods, 2003). Researchers found that most people involved in bullying situations—the bully, the victim and the bystander—are negatively affected by their experiences (Boulton *et al.*, 2008; Connolly *et al.*, 2000; Rigby & Slee, 1991; Roland, 2002).

Not surprisingly, bullying is a multidimensional construct, and it is often conceptualised in different ways. For instance, some educators do not differentiate between bullying and aggressive acts. According to Ross *et al.* (2009), some bullying prevention programmes focus on specific, undesirable behaviours, regardless of intentionality, frequency of behaviour and power differentials. Furthermore, 'some educators only see bullying as involving physical harm, but this is changing because of policies that are redefining bullying' (Rigby, 2012, p. 398). These unclear understandings of bullying contribute to differences in the subjective perceptions of the school environment and individual experiences. A clear understanding of bullying needs to be developed by all members of the school community (i.e. school staff, principal, students, parents) in order to consistently and effectively implement bullying prevention policies and programmes (Rigby, 2012). Furthermore, despite vast research into whether students are positively impacted or not by anti-bullying programmes (Beran & Shapiro, 2005; Bickmore, 2011; Cousins *et al.*, 2005; Ferguson *et al.*, 2007; Gueldner *et al.*, 2008; Osborn *et al.*, 2008; Wolke & Woods, 2003), much of the data consistently portray the impact of anti-bullying initiatives as having a minor significance in impact or a non-significant impact on positive outcomes and does not offer potential solutions and suggestions.

While many members of school communities and the larger public still feel schools are generally safe (Bracy, 2011; Han, 2010; Safe Schools Action Team, 2008), they are more concerned with school safety issues because of school climates that are now shaped by increased security measures (e.g. metal detectors) and surveillance (e.g. security cameras) that accompany school safety and disciplinary policies (Casella, 2010; Kupchik & Bracy, 2010). While some studies (e.g. Joong & Ridler, 2006; Safe Schools Action Team, 2008) report these methods of safety precaution increase the feelings of safety among students, teachers and school administrators, other studies (e.g. Casella, 2010; Steeves, 2010; Weiss, 2010; Williams, 2005) report these measures create avenues for racial profiling, coercion and social reproduction of stereotypes and prejudices.

Astor *et al.* (2006) noted what constitutes an 'unsafe' or 'safe' school is still vague because of the absence of empirically based criteria. However, students with low-functioning social skills and high rates of aggressive behaviour often create unsafe environments for others (Fitzgerald & Edstrom, 2006) and are segregated with peers with similar behaviour issues, making them more antisocial (Osher *et al.*, 2010). These antisocial skills and aggression do not exist in a vacuum; milder incidents (e.g. teasing and bullying) often result in aggressive behaviour (Cornell & Mayer, 2010). In thinking about creating a positive school climate, there is a need to first recognise factors that contribute to the experiences of the most vulnerable sub-populations to understand how negative school climates affect them. It is important to recognise that gender, race, ethnicity, ability, sexual orientation and social status also do not exist in a vacuum—they interact.

Sub-populations disproportionately affected by bullying and school violence

Although there are a number of ambiguities in school climate and school safety research, many researchers (e.g. Bracy, 2011; Benbenishty & Astor, 2005; Cornell & Mayer, 2010; Cowie *et al.*, 2003; Daniel & Bondy, 2008; Jull, 2000; Raby & Domitrek, 2007; Vavrus & Cole, 2002; Williams, 2005) agree that students from certain sub-populations (e.g. racialised groups; exceptional learners; students in sexuality or gender identity-based groups) are: (a) more involved in violent incidents (e.g. fighting and incidents involving weapons) and are consequently suspended and expelled more from schools; (b) bullied and victimised more frequently; and (c) overrepresented in alternative schools and programmes than their peers belonging to the mainstream population (e.g. White students without exceptionalities).

Racialised students

Disciplinary policies in schools are largely based on exclusionary punishments such as suspensions and expulsions (Cornell & Mayer, 2010). Punishments that exclude students from their school community add to their feelings of disconnectedness, lessens their motivation and they actually become more involved in law-breaking activities (Bracy, 2011; Dei *et al.*, 1997; Gregory *et al.*, 2010; Losen & Skiba, 2010; Vavrus & Cole, 2002). Initially implemented to promote school safety, it seems that policies

based on zero-tolerance philosophies often promote exclusionary punishments that alienate and de-motivate students (Kutsyuruba & Hussain-Kelly, 2010). The use of out-of-school suspension has approximately doubled since 1973, with much steeper increases for racialised students, and in the American context, Black students in particular (Losen & Skiba, 2010). This report employs the term *racialised students* to refer to non-White students who share similar experiences as a result of being non-White.

In exploring the moments that result in student suspensions, Vavrus and Cole (2002) conducted an ethnographic study in two science classrooms of a multiethnic high school located in a large metropolitan area in the US Midwest. Data included field notes and transcriptions of focus group sessions with students, individual interviews with teachers, administrators and safety personnel, and video recordings of classroom everyday interactions (including moments where suspensions became very likely and were later issued by the vice-principal or principal). Data were also gathered from individual questionnaires completed by students. Researchers concluded that, teachers who decide that students have disrupted the classroom and send them to the office to be suspended are greatly influenced by their own cultural understandings and experiences. According to Vavrus and Cole, unclear understandings and/or disagreement about what constitutes disruption, leads to excessive suspensions of racialised students. Furthermore, the researchers noted that teachers are largely influenced by race and gender biases that are not addressed in school discipline policies. Using data from US national study, Han (2010) supported the notion of teachers' discriminatory attitudes toward racialised students; building on an argument that racialised students were expelled from school three times more frequently than White students (Rausch & Skiba, 2004). While Cornell and Mayer (2010) claimed the cultural mismatch between teachers and students is largely responsible for systemic discrimination via the employment of disciplinary sanctions, they noted that more research is needed to address the conscious and unconscious processes that result in differential treatment of some racialised groups.

The largely subjective nature of school discipline policies often perpetuate racism and gender discrimination (Bracy, 2011; Vavrus & Cole, 2002; Williams, 2005). Additionally, these subjective discipline policies add to racialised students' overall feelings of powerlessness (Raby & Domitrek, 2007). During the summer months of 2004 and 2005, Raby and Domitrek (2007) conducted focus group sessions with diverse young people attending secondary school in southern Ontario to investigate high school students' perceptions and experiences with their schools' codes of conduct. Raby and Domitrek located most of their research participants by visiting community organisations (e.g. boys' and girls' club, a drop-in centre for homeless youth) and by word-of-mouth (via other students or community organisations). Focus group sessions were conducted in public spaces (not in schools); this encouraged more candid conversations about school rules (Raby & Domitrek, 2007). The researchers explored students' unquestioning acceptance (compliance) of many school rules. Raby and Domitrek concluded that while racialised students were especially impacted by disciplinary policies that resulted in their exclusion and alienation from the education system, they seldom questioned rules because they were aware of how they might come across as troublemakers. Additionally, racialised students reported feeling helpless as actors in decision-making processes about their behaviour and punishments. A

few students challenged minor school rules (e.g. no cell phone allowed in classrooms), but were disheartened when they realised that their voice was insufficient to bring about any policy changes. Some students felt insignificant with respect to the policymaking process.

Despite the ongoing school disciplinary policy reform in public schools worldwide (e.g. Benbenishty & Astor, 2005; Bracy, 2011; Bongers *et al.*, 2003; Cowie *et al.*, 2003; Huybregts *et al.*, 2003; Joong & Ridler, 2006), high security schools and strict punishments (e.g. zero tolerance) for problem behaviour do not seem to be curbing the number of violent incidents that occur in schools (Bracy, 2011; Joong & Ridler, 2006; Williams, 2005). However, there has not been a significant increase in the number of students who feel unsafe in schools either (Williams, 2005). Williams (2005) discussed the importance of empowering Black American male students who are deeply affected by school safety and disciplinary policies by giving voice to their school experiences and overall social contexts. In her study conducted in western New York, she interviewed students who were expelled from mainstream schools for possessing weapons and visited some of the students' homes and spoke with their family members. Williams also interviewed teachers at the alternative school. The majority of students were Black and all teachers were white. She focused on understanding how students' lives outside of school were organised. She noted that 79% of students lived with single-parent female-headed households. Some of these students had part-time jobs and were responsible for taking care of younger siblings. Williams discovered that the students accepted and normalised violence in their lives; many of them viewed physical violence, weapons and gangs as tools for safety in their communities, including schools. However, they learned that their tools were not tolerated in mainstream schools, and this intolerance was demonstrated in the interactions and relationships they had with others in their previous mainstream schools. In regards to the bullying experiences of racialised groups of students, students who have been bullied about race and/or ethnicity have lower grade point averages and miss more days at school than students who are not bullied about race and/or ethnicity (Scherr, 2012; Scherr & Larson, 2010). Typically, students who bully others in elementary schools are highly popular in their own peer groups and belong to families with a high socioeconomic status (Garandeau *et al.*, 2010).

Gender

Researchers reported differences in student perceptions of violence, bullying and school safety by gender and grade level (Booren & Handy, 2009; Varjas *et al.*, 2009) and by individual character traits (DeRosier & Newcity, 2005). It is not unusual for boys to display more physical aggression than girls. Garandeau and colleagues (2010) discussed the climate of unequal social relations in schools that sometimes results in incidents of bullying, harassment (including sexual harassment) and high-level school violence:

> Importantly, gender inequality in school may be a reflection of gender issues in the society at large. If one particular group enjoys greater power in the community, it may impact the peer ecology at school. This question is certainly not restricted to gender. Belonging to an ethnicity that is more or less dominant in the larger cultural context may influence chil-

> dren's social status at school, as well as the perception of their aggressive behaviours. (p. 126)

Researchers, who focus on the area of bullying, need to consider school bullying in the context of gender roles and the development of socially acceptable norms of masculinity and femininity in the dominant cultural context (Felix & Green, 2010). For example, at the elementary level, boys and girls pursue different goals in their relationships with peers. Girls tend to seek intimacy and friendships, while boys tend to be more concerned with competitiveness and the pursuit of high status (Garandeau *et al.*, 2010).

The most recent (at time of writing) Health Behaviour in School-Aged Children Canada-wide survey (Freeman *et al.*, 2011) emphasised gender differences related to emotional states of students who were victimised and/or who bully their peers:

> Across genders, young people who neither bully nor are victimized have the lowest levels of emotional problems. In general, girls have more emotional problems than boys. Young people who are victimized tend to have high levels of emotional problems (30% of boys and 42% of girls). Bullying is clearly related to these emotional health problems. (p. 177)

It has been found that positive school climate perceptions are protective factors for boys and may supply high-risk students with a supportive learning environment yielding healthy development, as well as preventing antisocial behaviour (Haynes, 1998; Kuperminc *et al.*, 1997).

Exceptional learners

Students with exceptionalities and emotional and behavioural disorders are bullied and victimised more than their peers who do not have these conditions (Cummings *et al.*, 2006; Osher *et al.*, 2010; Skiba *et al.*, 2012). Bullying is a relationship problem, not a problem solely with an individual child's aggression (Craig & McCuaig-Edge, 2011; Craig & Pepler, 2007; Cummings *et al.*, 2006). Aggressive behaviour remains to be one of the most common reasons for referral of students to mental health professionals (Sugden *et al.*, 2006). According to Sugden *et al.* (2006), aggressive behaviours have various roots (e.g. impulsivity, emotional instability, predatory behaviour); these can be linked with various mental health diagnoses (e.g. bipolar disorder, anxiety and autism). However, conduct disorder (CD) has been of particular interest to researchers who study antisocial and aggressive behaviours in children and adolescents who are involved in violent incidents in schools (Jimerson *et al.*, 2012).

When studying the relationships between students with exceptionalities, bullying/victimisation and academic achievement, it is important not to make sweeping generalisations about the experiences of these students. Students with exceptionalities include those with various physical, learning, intellectual and emotional abilities. It is important to keep in mind that very little research has focused specifically on bullying problems among students with physical exceptionalities (e.g. mobility, sight and hearing challenges; Cummings *et al.*, 2006).

There is a larger body of research about bullying/victimisation and students with learning exceptionalities compared with those with physical exceptionalities. There is

convergent evidence that students with learning exceptionalities are at greater risk to be bullied and are characterised as less socially skilled, less cooperative, more shy and having fewer friends than their peers without learning exceptionalities (e.g. Mishna, 2003; Root & Resnick, 2003). According to Cummings and colleagues (2006), 'There is a significant rate of overlap between LD [learning exceptionalities] and Attention Deficit Hyperactivity Disorder (ADHD), with 22% of children with LD reported to have comorbid ADHD' (p. 200). In a Canadian study conducted by McNamara *et al.* (2005), bullying prevalence was compared among 230 adolescents with learning exceptionalities (92 with comorbid learning exceptionality and ADHD), and 322 students without learning exceptionalities or ADHD. Students with comorbid learning exceptionalities and ADHD reported the highest levels of victimisation (direct and indirect); this was statistically significantly greater than the levels reported by student with learning exceptionalities and without learning exceptionalities. Furthermore, students with learning exceptionalities reported statistically significantly greater levels of victimisation than students with neither learning exceptionalities nor ADHD.

There is a paucity of research about the link between students with intellectual disabilities (ID) and bullying/victimisation (Cummings *et al.*, 2006). ID, also termed in different geographical locales as intellectual development disorder (IDD), developmental disability, or general learning disability, is formerly known as mental retardation (MR) (note, that MR is a controversial term that is still in use by the World Health Organization and in various professional settings around the world). Horner-Johnson and Drum (2006) conducted a review in which they discussed and defined maltreatment—forms of maltreatment included verbal abuse, theft, neglect, physical, emotional and sexual abuse. According to Horner-Johnson and Drum (2006), children, youth and adults with ID faced disturbingly higher rates of all forms of maltreatment compared with persons without ID. Maltreatment can exacerbate emotional exceptionalities. The latter category has been seldom highlighted by researchers in the area of bullying/victimisation. Fourteen per cent of Canadian children have mental health conditions, which affect their experiences in schools (Cummings *et al.*, 2006).

Sexuality or gender identity-based groups of students

Students from various sexuality or gender identity-based groups are also disproportionately affected by bullying and school violence. Researchers (Clarke & Russell, 2009; Robinson & Espelage, 2011; Scherr, 2012) found an alarming number of students who self-identify as LGBTQ (lesbian, gay, bisexual, transgender, or questioning) in mainstream schools feel unsafe, unwelcomed and are more frequently bullied and victimised than their non-LGBTQ peers. As a result, many LGBTQ students who feel unsafe in schools have a high number of absences, are less engaged in the academic and social processes in schools and are less likely to pursue post-secondary studies (Clarke & Russell, 2009). Scherr (2012) noted that LGBTQ students who are also racial/ethnic minorities are at 'elevated risk of victimization and, therefore, diminished access to educational opportunities and compromised mental health and poor academic out-

comes' (p. 105). When students are bullied about their sexual orientation they report lower levels of school engagement. Transgender students who are bullied about their sexual orientation report lower school engagement than their LGBQ peers who are also bullied. Numerous LGBTQ students skip school out of fear for their safety; in fact, three to five times higher than their non-LGBTQ peers (Scherr, 2012). According to Scherr, although no reliable drop-out statistics have been calculated for this sub-population (i.e. LGBTQ students who are racial/ethnic minorities), many of them eventually drop out of school. The more school days missed, the lower the grade point average may be. Bisexual boys who are bullied have been found to have lower grade point averages than other students belonging to the LGBTQ communities (Robinson & Espelage, 2011; Scherr, 2012), but their transgender peers do not follow too far behind (Greytak *et al.*, 2009). In addition, LGBTQ students who are racial/ethnic minorities and are bullied about their sexual orientation or gender expression and racial/ethnic differences lack plans for post-secondary education immediately after secondary school. Furthermore, gay students who are ethnic minorities report lower educational aspirations, regardless of bullying history, than their White, gay peers (Hunt & Jensen, 2007). Hunt and Jensen's study was conducted in the British context. Scherr (2012) noted that nearly half of LGBTQ students show interest in post-graduate degrees later on. LGBTQ students are at elevated risk of substance use and abuse, sexual risk-taking and mental health problems (Bontempo & D'Augelli, 2002; Scherr, 2012).

It is important to remember that within the LGBTQ community there are smaller communities, and it is pivotal for researchers to acknowledge their diverse experiences. For instance, in a longitudinal study conducted in British Columbia, LGB were two to seven times more likely than their heterosexual peers to have become pregnant or impregnated someone (Saewyc *et al.*, 2008). Then there is contention about the rate of suicidal tendencies among LGBTQ students. Robinson and Espelage (2011) found that LGBTQ youth are at a much greater risk for suicidal thoughts, suicidal attempts, victimisation by peers, cyber-bullying and elevated absences from school than their heterosexual peers. Robinson and Espelage (2011) underscored a dire need to improve the psychological and educational outcomes for LGBTQ students. The earlier a LGBTQ student 'comes out'/reveals their sexual orientation to their peers, they are at higher risk for being bullied and victimised (Scherr, 2012).

In regards to intervention, the majority of LGBTQ students who are bullied because of their sexual orientation or gender expression do not report bullying to school staff because they feel like nothing will be done about it (Hunt & Jensen, 2007). According to Hunt and Jensen (2007), when school staff intervene regarding homophobic comments, students report feeling safer at school and having stronger support networks that include adults. However, the pervasiveness of homophobic language in schools among students and school staff suggests that most school environments are hostile towards LGBTQ students (Robinson & Espelage, 2011). Teaching about bullying and school violence in classrooms and bully prevention programmes may help prevent bullying against LGBTQ students, but they are insufficient as a stand-alone approach (Kosciw *et al.*, 2012). In fact, students in schools with generic bullying policies report similar levels of victimisation as those with no safety policies

(Kosciw *et al.*, 2008). Lastly, research suggests 'intervention at reducing truancy among LGBTQ students should begin early, as this group is at increased risk in middle school' (Robinson & Espelage, 2011, p. 324).

The increasing focus on emotional and mental health

Students' emotional health is reportedly more influenced by their connections with their peers than their interactions with teachers, although student–teacher interactions are also important factors (Freeman *et al.*, 2011). The quality of peer relationships is important as is the types of activities peers engage in with each other. Negative peer relationships can lead to negative behavioural and emotional outcomes. Moreover, Freeman and colleagues (2011) noted that students are reportedly less connected to school as they progress through grades; this is concerning because it is in their later years that their emotional well-being is most vulnerable (see p. 64). Researchers (e.g. Craig & McCuaig-Edge, 2011; Craig & Pepler, 2007; Ttofi & Farrington, 2011) recognise the long-term effects that bullying/victimisation can have on students. For example, students who bully are at risk for long-term problems as adults such as antisocial behaviour, gang involvement and substance abuse, and students who are bullied are at risk for anxiety, depression and physical symptoms (Craig & McCuaig-Edge, 2011).

More recently, researchers (Freeman *et al.*, 2011) have started to also focus on mental health among students in Canadian schools and underscored ways in which mental health can determine academic performance and social outcomes among students. While the HBSC Canada-wide survey (Freeman *et al.*, 2011) did not make direct links between the state of students' mental health and their academic performance, implications of this relationship were frequently mentioned by youth who participated in the Healthy Advice Workshop (i.e. a two-day youth engagement event held in March 2011 consisting of approximately 20 young people in the HBSC age range from across Canada, adult participants from the federal government and the Joint Consortium for School Health, and researchers from HBSC Canada). One quotation from a student at the Healthy Advice Workshop that stands out in the final HBSC report is, 'People who are fighting aren't doing well in school, don't have good friend . . . not living their life right' (Craig & McCuaig-Edge, 2011, p. 180). It seems appropriate to remind researchers, policymakers, school staff, school leaders/principals, teachers, parents, community organisations and students of the following message:

> The UN Convention on the Rights of the Child (UNCRC) [. . .] identifies adults as responsible to protect children from all forms of physical and mental violence, injury or abuse. The UNRC further asserts that children with mental or physical disabilities 'should enjoy a full and decent life, in conditions which ensure dignity, promote self-reliance and facilitate the child's active participation in the community'. Bullying and harassment constitute abuse at the hands of peers and violate the rights of children and youth. (Cummings *et al.*, 2006, p. 194)

Furthermore, the Canadian Index of Wellbeing most recent report (Guhn *et al.*, 2010) reminds us of the continuity in the educational process; that is, 'the learners of

today are the teachers of tomorrow, and any education gap in one generation will inevitably affect following ones' (p. 1). Education is not to be mistaken to mean the same thing as schooling, as education is a process that begins before school age and extends beyond secondary school, post-secondary institutions and apprenticeships. Notably, high-quality childcare has positive effects on children's emotional, social and academic outcomes—the positive effects are greatly pronounced for children from disadvantaged minority backgrounds (see p. 2, Guhn *et al.*, 2010). Acknowledging and respectfully responding to the mental health needs and well-being of students encourages fair and equitable treatment of students by teachers and other school staff, and therefore, improves the social and academic dimensions of school climate.

Leadership, school climate and student achievement

Undoubtedly, school climate affects the behavioural and academic outcomes of students, and developing ways to improve the various dimensions of school climate is vital. Many researchers have suggested that the critical role in fostering a safe school climate and working conditions lies within the scope of the roles and responsibilities of school leaders (Boyer, 1983; Blase *et al.*, 1986; Loukas, 2007; Pepper & Hamilton Thomas, 2002; The Wallace Foundation, 2011). The climate of a school has been related to the actions and behaviours of the school principal directed as maintaining of positive and safe learning environments (Bulach *et al.*, 1998; Kelley *et al.*, 2006). Smith *et al.* (2005, p. 753) found that school administrators who invested their time, effort and allocated funds to anti-bullying initiatives yielded valuable returns by 'helping to create school environments that are safer and more peaceful for children, and, by implication, more conducive for learning and healthy development'.

Several studies have established relations between instructional leadership and the climate of the school (Lane, 1992; Hallinger & Murphy, 1987; Hoy *et al.*, 1991). Specifically, principals' instructional leadership behaviours were found to affect the climate and instructional organisation, which in turn were linked to student achievement (Bossert *et al.*, 1982). However, it is acknowledged that principals do not directly affect student achievement, but rather indirectly influence learning by impacting on the climate of the school (Hallinger & Heck, 1998; Witziers *et al.*, 2003). Researchers have also pointed out that principals' influence is mediated by their interactions with others, situational events and the organisational and cultural factors of the school (Hallinger & Heck 1998; Hoy *et al.*, 2006, Leithwood *et al.*, 2004).

Principals as leaders must be able to correctly envision the needs of their teachers, empower them to share the vision and enable them to create an effective school climate (Kelley *et al.*, 2006). Principals tend to have the power, authority and position to impact the climate of the school by developing the feelings of trust, open communication, collegiality and promoting effective feedback. Hoy and Hannum (1997) found that collegial leadership and the influence of the principal had interdependent effect on student achievement. Collegial leadership (friendly, supportive, egalitarian and open) is important in setting a healthy environment, but it is not sufficient for student achievement; likewise, principal's influence will do little to improve teaching and

learning unless it is connected to efforts in the classroom. Teachers are instrumental in improving instruction; they have to decide that they want to improve before it will happen (Hoy & Forsyth, 1986). If the leadership of the principal is to have any impact on student achievement, it needs to be linked to substantive activities in the classroom that make a difference in teaching and learning (Hoy & Hannum, 1997; Hallinger & Heck, 1996; Pounder *et al.*, 1996).

In their comprehensive review of the research on the role of the principal in school effectiveness, Hallinger and Heck (1996) concluded that achieving results through others is the essence of leadership; however, a finding that principal effects are mediated by other in-school variables does nothing whatsoever to diminish the principal's importance. As Hoy and Hannum (1997) argued, the leadership role of the principal remains important, but it is neither as simple nor as linear as many researchers have assumed; not only do other school variables interact with the efforts of the principal to constrain or enhance leadership initiatives, but such efforts are often indirect and frequently require different strategies for different goals.

Since school climate is largely based on the quality of relationships at school—a strong interdependence on connections among people—therefore, it helps to recognise that healthy relationships are built on trust. In fact, 'Trust functions as a lubricant of organizational functioning; without it, the school is likely to experience the overheated friction of conflict as well as a lack of progress toward its admirable goals' (Tschannen-Moran, 2004, p. xi). The school principals are largely responsible for creating, maintaining, sustaining and restoring trust within their school (Kutsyuruba *et al.*, 2010, 2011). Their fulfilment of this large responsibility lies in the type of leadership style they demonstrate (Tschannen-Moran, 2004) and their ability to serve as change leaders in school reform (Kelley *et al.*, 2006).

Strong school leadership contributes largely to the physical, social and academic dimensions of school climate (Kelley *et al.*, 2006; Tschannen-Moran & Tschannen-Moran, 2011), and school climate is a significant factor in successful school reform (Bulach & Malone, 1994). Furthermore, researchers (e.g. Kelley *et al.*, 2006; Waters *et al.*, 2004) suggest that student achievement is highly influenced by the presence or absence of a strong educational leader, the climate of the school and attitudes of the teaching staff largely shaped by teacher–principal reciprocal relationships. Tschannen-Moran (2009) found that degree of teacher professionalism is related not only to the professional orientation of school leaders but also to faculty trust. She posited that for schools to foster greater teacher professionalism, school leaders need to resist adopting a bureaucratic orientation, with its implicit distrust, but instead exercise their administrative authority with a professional orientation, extending adaptive discretion to teachers in the conduct of their work and adopting practices that lead to strong trust among school leaders, teachers, students and parents. Summarising the findings of empirical research on trust consequences, Forsyth (2008) reported that teachers' trust of a principal is positively related to the principal's authenticity, transformational leadership, teachers' trust of school organisation and colleagues, and school climate.

Final thoughts and implications

The findings in this review suggest that positive school climate, safe school environment and well-being of students are significant and strongly interrelated antecedents of meeting students' academic, emotional and social needs. Therefore, researchers (e.g. Cohen *et al.*, 2009; Jimerson *et al.*, 2012; Loukas, 2007; Ma & Klinger, 2000; Osher *et al.*, 2012) posited that a nested approach to monitoring, evaluating and addressing the various layers/elements of school climate is required. Often, previous research has neglected to focus on more than one element of school climate in their study, and this calls into question the validity of their findings and claims. Not only are there several elements that encompass school climate, but researchers need to consider that a student's educational experience occurs within classrooms, within peer groups, within a school, within a school board and within a neighbourhood. Correspondingly, researchers are called upon to gather and give attention to nested structures of educational data (Ma & Klinger, 2000). In this final section, we focus our discussions on how education policymakers, school leaders and teachers can play important roles in improving the physical, social and academic dimensions of school climates. In our recommendations, we are cognisant of the contextual relevance of our findings predominantly to the North American and European systems of education, and encourage researchers in other locales to critically review their consideration for other contexts.

Implications for policy

Because of the complex dimensions that comprise school climate and the multivariate understandings of the associated phenomenon such as school safety, bullying and violence, researchers have only offered ideas that support correlation between school bullying/victimisation/violence with students' academic achievement. While many studies (e.g. Bracy, 2011; Benbenishty & Astor, 2005; Cornell & Mayer, 2010; Cowie *et al.*, 2003; Daniel & Bondy, 2008; Jull, 2000; Raby & Domitrek, 2007; Vavrus & Cole, 2002; Williams, 2005) summon attention to the relationship among school environments, school disciplinary policies and student achievement, ultimately, social contexts impact students' understanding of what constitutes a safe environment and the frequency of violent incidents. Considering the fluidity of social contexts across time and space, researchers, policymakers, school leaders, teachers, parents and community organisations need to embrace the perspective that factors that contribute to a safe school environment can also vary across time and space (Benbenishty & Astor, 2005; Scherr, 2012).

Bullying prevention policies and programmes must explicitly prohibit discrimination based on sexual orientation and gender expression, but this is still not the case in some contexts (Scherr, 2012). Methods for reporting bullying and intervening in bullying incidents should be clear and publicised to school staff, students and parents. More research is needed to understand the mechanisms of the many roles of social support in the bullying dynamic, and more intervention research is needed to better inform families and schools of the types of what socially supportive behaviours are effective to prevent, interrupt and aid recovery in bullying situations (Demaray *et al.*,

2012). Additionally, 'what schools have been doing in countering bullying thus appears to be making some headway. What is not yet known is what works best and why' (Rigby, 2012, p. 404).

Partnerships between schools and community organisations that support students' mental, social and physical well-being and academic achievement should be increased and/or strengthened. These partnerships are also important factors in support school climate (Craig *et al.*, 2010). Booren *et al.* (2011) noted that counseling strategies carried out by mental health professionals could potentially support teachers within their classrooms to establish safe school environments. Crepeau-Hobson *et al.* (2005) suggested that mental health professionals (separate from school teachers) should take the lead in creating violence prevention and intervention programmes. These programmes should be systematically researched to determine their effectiveness and be disseminated for use only when there are data to indicate that they actually make a difference in school climate and safety (Greene, 2005; Peterson & Skiba, 2001). Furthermore, school climate research can contribute to the development of smarter policies, which will enable and support good schools as well as help the unsuccessful ones (Thapa *et al.*, 2013).

Implications for leadership

School leaders have an important role in building safe school climates and collaborative school cultures by establishing, maintaining, sustaining and brokering trust relationships in schools (Kutsyuruba *et al.*, 2010; Walker *et al.*, 2011). One of the most important dimensions of principals' work is building trust in relationships with teachers, which often results in acquisition and exercise of influence, authority, control and power through conflictive and cooperative-consensual behaviours (Goldring, 1993). In order to counteract the impact of micropolitics, principals need to exercise wisdom and make timely and prudent decisions in the interests of the social systems involved (Day, 2009). As Moye *et al.* (2005) suggested, principals need to empower staff in their positions. As a result, teachers may be more inclined toward positive relationships with their supervisors; such relationships are dependent on a substantial, discernible level of interpersonal trust.

If a principal and their school staff have a positive rapport, and teachers feel empowered in their positions to adequately and actively participate in their own professional development, it is more likely that the relationships between teachers and students will be healthy. Bullying incidents and other incidents related to violence in schools are the outcome of unhealthy relationships. If stakeholders collectively work to increase and improve the relationships that students have with their peers and adults in their lives, and also demonstrate what healthy relationships look like, schools can reduce bullying and school violence that hinder students' health, behavioural and social outcomes, and academic achievement. Therefore, it is necessary to further explore how leadership practices affect school climate through teachers, and how teacher morale and attitudes, in turn, can affect student achievement and students' attitudes about their educational experiences.

Implications for teaching

Marzano (2000) found an association between classroom management and achievement and student engagement. In his summary of meta-analyses, Hattie (2009) found a relatively strong effect for classroom management, falling in his range of 'desired effects'. The average effect size (0.52) he found across meta-analyses was larger than that found for principal leadership (0.38) and similar to that of home environment (0.57). Hattie concluded that 'teacher–student relationships were powerful moderators of classroom management' (Hattie, p. 102). The key appears to be classrooms with clear behavioural expectations and rules that were negotiated with students. Further, well-functioning classrooms promoted group cohesion and mutual respect among students. Hattie also noted that group cohesion also had a strong positive effect on student outcomes (effect size: 0.53). Based on his analyses of classroom climate studies, Hattie identified a set of common classroom features (attributes) that seemed to promote student learning. These 'attributes' included 'goal directedness, positive interpersonal relations, and social support' (p. 103).

Teachers can be most instrumental in providing the increased and improved emotional support for students as they move further along through their schooling (Freeman *et al.*, 2011). It is possible that school safety to students is still primarily defined as harm prevention and not necessarily well-being enhancement (Booren *et al.*, 2011). Therefore, teachers can assist students' development of knowledge and skills needed for a safe school environment (i.e. confidentiality and recognising signs of violent behaviour). Finally, teachers can work with parents of the students, emphasising that parental knowledge about the roles they play in supporting the climate of schools need to be increased and made more accessible (Craig *et al.*, 2010).

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