

# The relationship between school climate and student bullying

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## Abstract

**This study investigates the relationship between student perceptions of school climate and self-reported bullying between students. Data were collected from 604 students in 59 regular grade 5-6 classrooms, within 20 state schools in Victoria, Australia. A significant negative relationship was found between measures of positive school climate and the prevalence of student peer bullying. Implications for classroom teachers and school administrators are discussed. The importance of measuring and monitoring students' involvement in bullying and perceptions of school climate is emphasised.**

## Introduction

School climate has gained increased attention in recent years as a factor linked to a wide range of important student outcomes (Swearer, Espelage, & Napolitano, 2009). School climate refers to the quality and atmosphere of school life, and includes factors such as school values, interpersonal relationships, teaching and learning, leadership, and organisational structures (Cohen, 2009). It is more than simply an individual experience, but rather a group phenomenon that is larger than any single personal perspective (J. Cohen, McCabe, Michelli, & Pickeral, 2009). For Welsh (2000, p. 256) it is defined as “the unwritten beliefs, values, and attitudes that become the style of interaction between students, teachers, and administrators.”

From the view-point of social-cognitive theorists (Bandura, 2001; Rogers, 1951) people react to life-experiences as they perceive them to be; regardless of whether their perceptions are objectively accurate or not (Koth, Bradshaw, & Leaf, 2008). Consequently, the perception that students have of their school environment is argued to have an impact on their behaviour within the school setting (Koth et al., 2008). School climate has indeed been found to be linked to a wide range of important school outcomes such as academic achievement (Brand, Felner, Shim, Seitsinger, & Dumas, 2003) learning motivation (Marsh, Martin, & Cheng, 2008) and school avoidance (Brand

et al., 2003). A significant connection has also been found with self-esteem, depressive symptoms and challenging behaviour (Way, Reddy, & Rhodes, 2007). Behavioural problems with links to school climate include aggression (Wilson, 2004), school delinquency (Gottfredson, Gottfredson, Payne, & Gottfredson, 2005) and bullying (Bandyopadhyay, Cornell, & Konold, 2009). Following a review of anti-bullying intervention programmes, Parada (2000, p. 15) claimed that “interventions which changed the social milieu of schools are the most appropriate when dealing with school bullying”.

Many researchers are convinced that the climate of a school has a direct impact on the attitudes and behaviour of students, including the prevalence of bullying (Bandyopadhyay et al., 2009; J. Cohen, McCabe, et al., 2009; Due et al., 2005; Kasen, Johnson, Chen, Crawford, & Cohen, 2011; Meyer-Adams & Conner, 2008; Orpinas, Horne, & Staniszewski, 2003; Roland & Galloway, 2002; Swearer et al., 2009; Yoneyama & Rigby, 2006). A school-wide initiative by Orpinas et al. (2003) for example, focused on changes to particular aspects of school climate and included a strong education component for both students and staff. They reported a 40% reduction in self-reported aggression and a 19% reduction in self-reported victimisation. In contrast, a longitudinal study by Kasen, Berenson, Cohen & Johnson (2004) involving 500 children and their mothers, found that students in highly conflictual schools demonstrated an increase in verbal and physical aggression over time, even after controlling for baseline aggression.

## School Bullying

Bullying has been defined as aggressive behaviour, repeated over time, which results in harm to another person, who is usually powerless to defend themselves (Olweus, 1999). Australian studies have indicated that about one child in six is bullied at school on at least a weekly basis and that 1 in 10 are active bullies (Rigby, 2007). The effects of involvement in student peer bullying are wide-ranging, with negative outcomes reported within the physical, psychological and social

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domains of well-being (Due et al., 2005; Kaltiala-Heino, Rimpela, Rantanen, & Rimpela, 2000; Williams, Chambers, Logan, & Robinson, 2006). Concern has also mounted over evidence for the long-term nature of these negative effects (Carlisle & Rofes, 2007; Schäfer et al., 2004).

It is acknowledged that comparing data in relation to bullying prevalence can be problematic since studies often vary widely in methodology (Carter & Spencer, 2006). Additionally, it is likely that the meaning bullying holds for respondents has altered over the years (Rigby, 2003). This has resulted in additional phenomena being included when identifying bullying compared to early research, particularly with indirect forms such as relational bullying. It has been demonstrated however, that even when identical instruments and methodology are utilised, prevalence rates can vary greatly between communities. An international comparative study for example, surveyed 40 European countries and North America (Craig et al., 2009), finding a wide variation of reported involvement; from that of Sweden which recorded a low of 6.7% (either as a bully, victim or both, in the past two months), to a high of 40.5% in Lithuania. This variation indicates that bullying is significantly more common in some communities than in others.

It is also important to note evidence of wide variations in victimisation between schools within the same locality. Following extensive work within Norwegian schools, Olweus (1991) reported that one institution could have up to five times the rate of bullying of another in the same community. This would suggest that even when factors such as geographic location, socio-economic status and education systems are taken into account, some schools, through a range of internal factors, have much lower rates of bullying and victimisation than comparable schools. School climate is considered one of the key factors contributing to the prevalence of student bullying within school (Orpinas et al., 2003; Roland & Galloway, 2002). It is significant to note that climate scores have been found to be very stable (Brand et al., 2003), suggesting that features of a school's environment persist over time, even when student membership changes. "School climate matters. Sustained positive school climate is associated with positive child and youth development, effective risk prevention and health promotion efforts, student learning and academic achievement, increased student graduation rates, and teacher retention" (Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013, p. 369).

## School Climate Domains

Though there is not as yet consensus regarding which dimensions are essential to a valid measurement of school climate (Thapa et al., 2013), there have

traditionally been five domains identified (Zullig, Koopman, Patton, & Ubbes, 2010): (1) Order, Safety and Discipline, (2) Academic Outcomes, (3) Social Relationships, (4) School Facilities and (5) School Connectedness. In recent times however Zullig and associates (2010) have argued for a set of eight climate domains: student-teacher relationships, school connectedness, academic support, order and discipline, school physical environment, school social environment, perceived exclusion/privilege, and academic satisfaction.

Arguably, the strongest body of evidence relating to the improvement of school climate is that focused on improving student-teacher relationships (Ahnert, Harwardt-Heinecke, Kappler, Eckstein-Madry, & Milatz, 2012; Barile et al., 2012; Zullig, Huebner, & Patton, 2011). Of all school climate domains, student-teacher relationships is most strongly correlated with all other school climate measures (Zullig et al., 2010), including connectedness to others (Thapa et al., 2013), and perceptions of social, emotional and academic support (Osterman, 2000; Wentzel, 2002).

The extent to which students feel a sense of connectedness to the school has also been acknowledged as an important dimension and closely related to that of relationships (J. Cohen, McCabe, et al., 2009). There is evidence that when a person feels a lack of belonging and connectedness, there is an increased risk of self-defeating behaviours, including aggression towards others (Morrison, 2006). In considering the importance of these relationships, it is significant to note the close connection between students' perception of fair discipline practices, and positive student-teacher relationships (Marzano, 2003; Wang, Selman, Dishion, & Stormshak, 2010; Welsh, 2000). Findings suggest in fact that a student's satisfaction with school is largely based on feeling that "they are treated fairly, that they feel safe, and that they believe that teachers are supportive" (Samdal, Nutbeam, Wold, & Kannas, 1998, p. 383). Thus, the extent to which students feel safe and are treated fairly contributes significantly to student perceptions of school climate.

To clarify the relationship between aspects of school climate and bullying, in particular within the Victorian school context, the current study examined the relationship between school bullying and three dimensions of school climate: student-teacher relationships, peer-relations and belonging, and perceptions of safety and fairness.

## Method

### Participants

All regular primary and composite schools containing grade 5-6 students within the seven districts of the North-Eastern Metropolitan Region of Melbourne

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(n=139), in addition to schools in the Loddon Mallee rural districts of Goldfields and Macedon Ranges (n=36) were invited to participate. From this a total of 20 schools (59 classrooms) participated, with a final sample of 604 grade 5-6 students. A variety of school sizes were represented, the smallest containing 23 students, through to the largest with an enrolment of 630. All students who participated in the study had returned written consent forms to the school, signed by themselves, and by a parent/caregiver. All were members of regular grade 5-6 classrooms.

Student numbers within the 59 classrooms varied, with an overall average of 25 per classroom. The consent return rate from individual classrooms was mixed, from a low of 8% through to a high of 84%, with an overall average of 42.5% per classroom. Of the 604 valid student responses, 268 (44.4%) were male and 323 (53.5%) female. In relation to schooling level, 276 (45.7%) respondents were in grade five and 307 (50.8%) in grade six.

#### Instrument

The 'Getting Along at School' survey was constructed for the current study and included self-report questions related to involvement in bullying in addition to perceptions of school climate. Questions related to bullying involvement required respondents to recall experiences related to bullying from the previous two months: as a bully, a victim or an observer. Prevalence data was provided within five key victimisation categories: physical victimisation, verbal victimisation, social manipulation, attacks on property, and electronic victimisation (cyberbullying). The section on school climate comprised 28 questions related to student perception of school climate, with feedback being recorded on a five-point Likert type scale, ranging from 'strongly agree' to 'strongly disagree'. The instrument was tested within two pilot studies, the first with a small group of 5 children, and the second within two regular grade 5-6 classrooms.

Following data collection, a principal component analysis was undertaken, revealing the presence of five components with eigenvalues exceeding 1. An inspection of the screeplot (Catell, 1966) however revealed a clear break after the fourth component. The possibility of a four factor solution was further supported by the results from a parallel analysis, which demonstrated only four components with eigenvalues exceeding the corresponding criterion values derived from a randomly generated data matrix of the same size (28 variables and 604 respondents). An examination of the four factors revealed that factor one related strongly to 'student-teacher relationships', factor two contained a mixture of items related to both 'peer-relations' and 'belonging', factor three comprised items related to 'attitudes towards aggression', and items

loading on factor four focused on 'safety and fairness'.

A reliability analysis (Spicer, 2005) was performed to assess the internal consistency of items within each scale. The Cronbach's alpha scores (Knoke, George, & Mee, 2002) were .889 (student-teacher relationships), .86 (peer relations and belonging), .468 (attitudes towards aggression), .612 (safety and fairness). The attitudes towards aggression scale, due to low internal reliability and two of the three scale items possessing correlation coefficients below .3, was deemed unreliable and dropped from further use within the study. Thus three scales remained for analysis.

#### Procedures

The surveys were conducted during regular class-times by the researcher, with an explanation of key terms, and instructions for completion, given prior to students commencing. Most students completed the survey within 20 minutes. Following collection, data were entered from student surveys into SPSS (20) for analysis.

Historically, when employing bullying and victimisation self-report scales, a variety of methods has been utilised by researchers to determine the number of students considered to fit various categories. For example, Olweus & Solberg (2003) regarded as victims or bullies those students who endorsed '2-3 times per month' on more than two global items. Other researchers however have included as bullies and victims students who endorsed '2-3 times a month' on at least one of the global items (Chen, Liu, & Cheng, 2012). Additionally, some have added the scores from each of the scales cumulatively, with higher totals indicating more frequent or serious bullying (Chen et al., 2012). In the current study, the bullying scales were utilised as 'cumulative totals', the starting point (cumulative total) selected for acknowledging involvement as a victim or bully was 4. This would require a child to have been bullied or bullied others at least 2-3 times a month in order to be considered a victim or a bully respectively. In considering the cumulative cut-off points at which self-reported victimisation is to be considered as low level, moderate or severe, the following was adopted: a cumulative score of 4-6 = low level victimisation; a score of 7-9 was considered moderate victimisation (in that it required students to report having been bullied most weeks and in more than one context); while a score of 10 and above was adopted to represent severe bullying as it required students to indicate they have been bullied most days, within more than one context.

#### Analysis and Results

Analysis first considered descriptive statistics of the main variables (school climate and bullying), some of which are reported here, then investigated differences

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and relationships between the major variables. Differences in bullying at class and school level are reported here, together with correlation and regression analyses identifying the strength of school climate predictor variables potentially influencing bullying.

### Bullying Prevalence

Analysis of student self-report data reveals that a total 36.1% of children (n=604) report having been bullied in the past two months (cumulative score >3). Boys were slightly over-represented with 37.7% of boys being reportedly victimised compared with 33.7% of girls. Analysis of the severity to which children report being victimised demonstrate that 17.9% report low level victimisation, 10.6% moderate levels and 7.6% high levels of victimisation.

In regards to 'bullying others' a total 9.1% of children report being involved in bullying others in the past two months (cumulative score >3). Boys were again over-represented with 14.9% of boys admitting to bullying others compared with 4.6% of girls. A total of 6.5% of students (n=39) self-reported as being both a bully and a victim. Males were over-represented with 10.4% of males identifying as both a bully and a victim compared to 3.4% of females.

### School Climate: School and Class Differences

A multivariate analysis of variance was performed to investigate differences in perceptions of school climate between classrooms and between schools. Three dependent variables were used: student-teacher relationships (STR), peer relations and belonging (PRB) and safety and fairness (SF). Effect sizes (eta squared) were interpreted according to recommendations by J. W. Cohen (1988) where .01 was considered small, .06 medium and >.14 a large effect. A significant difference was found on the combined dependent

variables between classrooms [ $F(3, 543) = 2.15, p = .000$ ; Pillai's Trace = .59; partial eta squared = .19] and between schools [ $F(3, 582) = 3.24, p = .000$ ; Pillai's Trace = .286; partial eta squared = .095]. When the results for the dependent variables were considered separately, all reached statistical significance. The variables exhibiting the greatest difference between classrooms were that of peer relations and belonging ( $F(3, 543) = 2.61, p = .000$ ; partial eta squared = .22) and that of safety and fairness ( $F(3, 543) = 2.60, p = .000$ ; partial eta squared = .22). The variable exhibiting the greatest difference between schools was that of safety and fairness:  $F(3, 582) = 4.54, p = .000$ ; partial eta squared = .13. Thus classrooms were a strong predictor of differences in student perception of school climate, while schools were a moderate predictor. Neither gender or grade level were significant in predicting differences in student perceptions of school climate.

“36.1% of children (n=604) report having been bullied in the past two months ... 7.6% [at] high levels of victimisation.”

### Relationships Between School Climate and Bullying Correlational analysis

#### Whole sample correlations

The relationship between the three school climate variables, and measures of involvement in bullying were examined using Spearman's rho (see Table 1).

Effect sizes were calculated based on the standard interpretation of: small ( $r = .10$  to  $.29$ ), medium ( $r = .30$  to  $.49$ ) and large ( $r = .5$  to  $1.0$ ) (J. W. Cohen, 1988). Results from the above correlation analysis demonstrate that in regards to 'total bullying experienced', a moderate negative correlation was found with peer relations & belonging (PRB) and safety & fairness (SF), with a weak negative correlation with student-teacher relationships (STR). With 'have bullied others', weak negative correlations were found with STR, PRB and SF. In regards to 'have been bullied', weak negative correlations were found with STR

**Table 1: Correlations: Bullying/victimisation and school climate**

	Spearman's rho	Bullying observed N = 597	Have been bullied N = 604	Have bullied others N = 604	Total bullying experienced N = 604
Student-teacher relationships	correlation coefficient	0.157*	-0.224*	-0.206*	-0.281*
	significance (2-tailed)	0.000	0.000	0.000	0.000
Peer relationships & belonging	correlation coefficient	-0.218*	-0.374*	-0.230*	-0.411*
	significance (2-tailed)	0.000	0.000	0.000	0.000
Safety & fairness	correlation coefficient	-0.308*	-0.263*	-0.240*	-0.354*
	significance (2-tailed)	0.000	0.000	0.000	0.000

\* Correlation is significant at the 0.05 level (2-tailed)

and SF, with a moderate negative correlation with PRB. Lastly, with 'observed bullying' a weak negative correlation was found with STR and PRB, and a moderate negative correlation with SF. Thus the current study found that in general, increased measures of school climate were positively related to less bullying experienced by students.

In order to confirm the relative contribution the three climate scales make to overall bullying experienced at school, a standard linear multiple regression analysis was performed. The three scales were found to jointly explain 22.6% ( $p < .0005$ ) of the variance in bullying experienced by the children in the current study. In examining the standardized coefficients, only two variables demonstrated significance at the  $p < .005$  level; the largest being PBR (beta =  $-.431$ ,  $p < 0.0005$ ) followed by SF (beta =  $-.215$ ,  $p < 0.0005$ ). Thus in this study the independent variable of PBR makes the strongest unique contribution to explaining the dependent variable. Part correlation coefficients show that PBR makes up 10.1% of the total R square, and Safety & Fairness 3.2%.

*Examining correlations at classroom and school level*  
In order to investigate the relationship between membership of a classroom and of a school, and perceived classroom climate, the three variables, STR, PRB and SF were aggregated at the classroom level ( $n=59$ ) and at the school level ( $n=20$ ). The relationship between classroom and school climate variables and involvement in bullying, was investigated using Spearman's rho (see Table 2 and 3 respectively).

In examining 'total bullying experienced' at the classroom level, a moderate negative correlation was found with STR and strong negative correlations with PRB and SF. When examining 'total bullying experienced' at the school level, a strong negative correlation was found with PRB and with SF. Thus at both the classroom and school level, increased measures of school climate were strongly and positively related to less bullying experienced by students within the classroom, with a stronger effect exhibited at the classroom level. Strong correlations suggested the application of regression analysis.

#### Multiple regression

A standard linear multiple regression analysis was performed to gauge the overall contribution the three climate scales make to the difference in bullying experienced between classrooms and between schools. Examination revealed that the three climate scales explained 41.3% ( $p < .0005$ ) of the variance (Adjusted R Square) in bullying experienced between classrooms. In comparing the standardized coefficients, the largest was PRB (beta =  $-.568$ ,  $p < 0.0005$ ) followed by SF (beta =  $-.378$ ,  $p < 0.01$ ) with no significance shown

for the STR variable. When examining results at a school level, analysis revealed that the climate scales explain 38.9% ( $p < .05$ ) of the variance (Adjusted R Square) in bullying experienced between schools. The only significant predictor variable was STR (beta =  $-.772$ ,  $p < 0.005$ ).

Thus at the classroom level, the independent variable of Peer Relationships and Belonging makes the strongest unique contribution to explaining the dependent variable, while at the school level the independent variable of Student-Teacher Relationships makes the strongest unique contribution to explaining the dependent variable. Further, classroom level effect sizes were greater than those displayed at the school level.

#### Discussion

The results from the current study confirm that a significant relationship exists between increased positivity in school climate and less school bullying. When examining data at the classroom level, it was found that 41% of the variation in total bullying experienced between classrooms could be explained by the climate factors considered. It does not however establish causality, thus not determining if a more positive school climate reduces bullying and victimisation, or conversely whether increased involvement in bullying causes students to perceive school climate in more negative terms.

Some authors on school bullying argue that the relationship between school climate and bullying is bi-directional or cyclical in nature (Klein, Cornell, & Konold, 2012) and thus the negative influence that aggressive students have on climate should be taken into account when considering causality. While much weight is given in the literature to climate as a causal factor of school bullying, it could be argued that factors at the individual level within classrooms, significantly impact perceptions of school climate. There is much evidence for example, to support the influence that aggressive individuals have on their peer groups (Espelage, Holt, & Henkel, 2003; Mouttapa, Valente, Gallaher, Rohrbach, & Unger, 2004; Wright, Giammarino, & Parad, 1986) and thus on the climate of a school. Additionally, it is possible that students who are involved in risky or aggressive behavior may be more inclined to perceive their school in negative terms (Klein et al., 2012). Thus a greater number of aggressive students within a classroom may - within a school climate survey - portray the classroom climate in a more negative light.

There is however, evidence gathered through longitudinal studies, that a positive school climate can serve as a protective factor associated with decreases in risk behaviour such as substance abuse and aggressive behaviour (Aspy et al., 2012; Bond

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At the classroom level, ... Peer Relationships and Belonging makes the strongest unique contribution to explaining [bullying], while at the school level ... Student-Teacher Relationships makes the strongest contribution.”

**Table 2: Correlations: Between classrooms (aggregated) N=59**

Spearman's rho		bullying observed	have been bullied	have bullied others	total bullying experienced
climate 1: STR	correlation coefficient	-0.289**	-0.237	-0.259**	-0.310**
	significance (2-tailed)	0.026	0.070	0.048	0.017
climate 2: PRB	correlation coefficient	-0.455*	-0.530*	-0.394*	-0.558*
	significance (2-tailed)	0.000	0.000	0.002	0.000
climate 3: SF	correlation coefficient	-0.587*	-0.508*	-0.449*	-0.585*
	significance (2-tailed)	0.000	0.000	0.000	0.000

\* Correlation is significant at the 0.05 level (2-tailed)  
 \*\* Correlation is significant at the 0.01 level (2-tailed)

**Table 3: Correlations: Between schools (aggregated) N=20**

Spearman's rho		bullying observed	have been bullied	have bullied others	total bullying experienced
climate 1: STR	correlation coefficient	-0.111	-0.171	-0.360	-0.244
	significance (2-tailed)	0.642	0.470	0.119	0.301
climate 2: PRB	correlation coefficient	-0.418	-0.602*	-0.539**	-0.608*
	significance (2-tailed)	0.067	0.005	0.014	0.004
climate 3: SF	correlation coefficient	-0.667*	-0.430	-0.202	-0.540**
	significance (2-tailed)	0.001	0.058	0.392	0.014

\* Correlation is significant at the 0.05 level (2-tailed)  
 \*\* Correlation is significant at the 0.01 level (2-tailed)

“*Individuals are ... affected by the way they act upon their environment, and the way in which their environments acts upon them.*”

et al., 2007; Klein et al., 2012). Bullying appears to be part of this larger pattern of youth involvement in negative behaviours (Espelage, Bosworth, & Simon, 2001; Hymel, Rocke-Henderson, & Bonanno, 2005; Pellegrini, Bartini, & Brooks, 1999) and thus arguably, also influenced by the climate of a school. A large number of researchers have come to the conclusion that climate is indeed a key factor in reducing bullying and victimisation within a school (Barboza et al., 2009; Hong & Espelage, 2012; Orpinas et al., 2003; Roland & Galloway, 2002; Swearer et al., 2009; Wilson, 2004).

These differing views of causality are not mutually exclusive and as argued by Klein et al. (2012) are probably evidence of the bi-directional or cyclical relationship between climate and involvement in bullying. It is likely that the behaviour of individuals influence the peer group, the actions and attitudes of

peer groups influence climate, and the school climate (shaped by a wide range of influences) in turn affects the attitudes and behaviour of students. Individuals are thus seen to be affected by the way they act upon their environment, and the way in which their environments acts upon them (DeSantis King, Huebner, Suldo, & Valois, 2006).

According to the social control theory (Hirschi, 1977) there is a strong connection between individuals who do not feel an attachment or bond to institutions such as schools, and the development of antisocial behaviour. Conversely, individuals who establish connections with conventional societal institutions are viewed as less likely to engage in wrongdoing and more likely to internalize the norms of appropriate behaviour. Connected to this theory is evidence that students' perception of their school and their sense of satisfaction with what they experience, will impact

their attitudes and behaviour. This was evidenced within a cross-national analysis involving over 250,000 students, which reported that children with only 2-3 negative school perceptions experienced twice the probability of being involved in bullying or victimisation (Harel-Fisch et al., 2011). Positive school perceptions on the other hand were strongly connected with a positive school climate.

Studies within the domain of social psychology, demonstrate that an individual's feelings of social responsibility are not limited to immediate friends (Brewer & Gardner, 1996). Rather, when people identify with a group, they are willing to forgo what is of self-interest in order to benefit the larger group. There is consistent evidence that these feelings of belonging produce action, thereby reducing passive bystander behaviour (Baumeister & Leary, 1995). It can be suggested therefore, that in a school where efforts are made to improve connectedness and belonging, improvements may occur in the behaviour of students who, though not directly involved in bullying, can by their actions significantly impact the prevalence of aggressive behaviour within the school.

The literature on aggressive and risk taking behaviour supports the impact that school climate makes in determining whether or not children choose to intervene when being made aware of the dangerous intentions of a peer. Syvertsen, Flanagan & Stout (2009) for example, analysed responses from 1933 adolescents in 13 schools who were all presented with the same scenario, detailing a hypothetical peer's plan to 'do something dangerous' at school. They were asked how likely they would be to respond in the following ways; 'intervene directly, tell a teacher or principal, discuss it with a friend but not an adult, or do nothing'. Results indicate that students who have a positive view of the school climate are significantly more likely to take action to prevent a peer's dangerous plan. This finding supports the important role schools can play in creating a positive climate where students are willing to take care of one another. Smokowski & Kopasz (2005, p. 30) argue that; "the research literature on youth violence prevention makes clear that focusing solely on the behaviour to be eliminated is less effective than having a simultaneous focus on constructing a positive context that is inconsistent with bullying and coercion".

### Implications

Rather than viewing the likely cyclical relationship between school climate and bullying prevalence as lessening the significance of positive school climate, it could in fact be presented as an argument for its

importance. Schools should view climate not only as the sum of influence that will impact the aggressive behaviour of students, but also as a barometer reflecting individual experiences, attitudes, and values that will need to be deciphered and addressed at an individual as well as global level. Yoneyama and Rigby (2006) suggest for example, that children's negative perceptions of school climate could be a useful source of information in helping to highlight children who may be involved in bullying and victimisation. Identifying children involved in bullying is not an easy task, and paying greater attention to the attitudes and demeanour of individuals within the class may provide valuable clues.

This view of climate as both a catalyst and barometer should highlight the importance of monitoring and responding to measures of school climate on a regular and ongoing basis. More work needs to be done to ensure schools have effective instruments, suitable for all age levels, with which they can quickly and accurately measure climate and school bullying. It is equally as important to ensure that instruments are sensitive to the different types of bullying, including the more subtle forms such as relational aggression.

An additional perspective to consider relates to evidence that teachers can at times take the role of a bully in their relationships with students and with each other (Whitted & Dupper, 2008) thereby modelling the intimidating and aggressive behaviours they wish students to avoid. Aggressive behaviour by teachers has been shown to be significantly related to negative attitudes of students towards teachers and towards their school work (Lewis, Romi, & Roache, 2012; Roache & Lewis, 2011; Romi, Lewis, Roache, & Riley, 2011), and further, to be relatively commonplace (Romi et al., 2011). Aggressive teacher behaviour is perceived by students as not only affecting their ability to focus on their schoolwork, but also to be instrumental in damaging their relationships with teachers (Lewis et al., 2012). Teachers must thus take care to monitor their own interactions with students in order to create and maintain a supportive environment where respectful and appropriate behaviour is exemplified (Richard, Schneider, & Mallet, 2012; Romi et al., 2011).

Bullying intervention programmes should examine all relationships within the school environment, including those between staff members and between staff and students. Each relationship level will be significant in determining the overall climate and in providing models that students can emulate in their interactions with each other. Jennings and Greenberg (2009) found evidence for example, that students often take cues from teachers in determining whether

“*Students who have a positive view of the school climate are significantly more likely to take action to prevent a peer's dangerous plan.*”

peers were likeable or not and that their perception of teacher support had a buffering effect on the social preference of peers. “It seems increasingly important for teachers and school administrators to understand fully that every interaction between teachers and students is a learning experience for the students involved in it or who witness it” (Lewis, 1997, p. 7). It is possible that teachers may underestimate the impact that their attitudes and behaviour have on students, failing to realise the extent to which they are a powerful force in the socialisation process occurring at school.

Though considered a powerful influence, there is yet to be the same accountability for the development and maintenance of a positive school climate, as there is for the delivery of the academic curriculum. It could be argued that educational policy has become too narrowly focused, with insufficient emphasis on social and emotional contexts (J. Cohen, Pickeral, & McCloskey, 2009). It is unwise to assume that all children will naturally acquire these skills, or indeed that these skills are any less important than academic competence, to a child’s transition into healthy adulthood. Neither can it be taken for granted that global measures designed to impact classroom norms, such as the implementation of a social skills curriculum, will adequately impact all students. It has been found that even students peripheral to or isolated from the social structure of the classroom can develop antisocial behaviour, independent of the group norms (Rodkin, Farmer, Pearl, & Acker, 2000). Thus school climate requires individual interventions in addition to global measures, if it is to make positive gains over the long-term.

One of the limitations of this study was the relatively low consent return rate, and thus a lower than desirable participation rate from students within many classrooms. This factor, combined with the clustered nature of the sampling techniques, require the results to be generalised with caution. It is difficult in educational settings to avoid clustering, yet it is important to acknowledge that clustered samples are less than precise, and more likely to contain sample errors, than if random sampling were employed (Garson, 2012). In addition, it is recognised that samples extracted through volunteer participation can be biased (L. Cohen, Manion, & Morrison, 2011). Specific reasons may exist why particular schools or individuals choose to be involved or conversely, avoid involvement, resulting in a sample group that may not be representative of the wider population (Bryman, 2012). Additional sampling errors may be introduced if exclusion from participation is more prone amongst some groups compared to others (Gray, 2009).

## Conclusion

Schools have the opportunity to utilise climate measures as both an effective catalyst and as a barometer, assessing current states and informing future practice. There appears to be a major gap between research into school climate and actual school practice. If indeed social-emotional skills are considered fundamental for a successful transition into adulthood and for an improved quality of life, effort should be made to ensure that this gap is bridged (J. Cohen, 2006). **TEACH**

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