Comparison and Connections Between School Climate, School Safety and Adolescents’ Antisocial Behavior Across three Types of Schools

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Abstract. This cross-sectional study assessed three-dimensional school climate, school safety and pupils’ antisocial behavior in three types of schools (9 mainstream, 3 special and 2 training schools) and examined the links between these three school contexts variables. 14–17 years old students (506) fulfilled questionnaires. Findings revealed that students in mainstream schools perceived higher levels of teacher support and good school policies, higher levels of school safety and lower pupils’ antisocial behavior compared with students’ evaluations in other types of schools. The middle ratings reflected special schools pupils’ opinions in the area of school climate and safety.

Keywords: school climate, school safety, antisocial behavior, three types of schools, descriptive analysis.

Introduction

Studies suggest that the benefits of school climate may influence the risk of antisocial behavior (Hawkins, Lishner, 1987; Jessor, et al., 1995; Welsh, 2000; Wilcox & Clayton, 2001). Specifically, research suggests that positive school climate is associated with reduced aggression and violence (e.g. Karcher, 2002; Astor et al., 2006; Brookmeyer et al., 2006; Goldstein et al., 2008), whereby these studies have focused on the relationship between the school climate in general, not to the different dimensions of social climate.
In this article, school climate is viewed as the milieu created by interactions among and between adults and students and individuals’ beliefs and attitudes (Wang et al., 2013). There is a general agreement, that school climate is a complex multi-dimensional construct (McEvoy & Welker, 2000), but there is not consensus as to which dimensions are necessary to include in assessment of school climate. In this study we address three essential dimensions of school climate, whereby these dimensions were previously identified as relevant to prevent school violence (Astor et al., 2006): teacher support, school policies against violence, and structural environment of school. In several studies, links between multi-dimensional school climate and different types of antisocial behavior was revealed. Namely, Klein et al. (2012) study results gave the evidence that a positive school climate, limited to three domains (willingness to seek help, aggressive attitudes, prevalence of bullying and teasing) was associated with lower levels of student involvement in risky external and internal behaviors. Wang et al. (2013) reviewed research on school climate and bullying behavior proposing that an unhealthy and unsupportive school climate (e.g., negative relationship between teachers and students, positive attitudes towards bullying) provides a social context that allows bullying behavior to occur. Wang et al. (2010) longitudinal study revealed that proportions of students reportings of positive school climate perception (dimension: academic support, behavior management, teacher social support, and peer social support) decreased over the middle school years for both genders of adolescents, while the level of externalizing problem behavior engagement increased. The findings suggested that students, who perceived higher levels of school discipline and order or more positive student–teacher relationships as components of school climate, were associated with lower probability and frequency of subsequent behavioral problems.

However, the research is not clear in identifying how various aspects of perceived school climate support or hinder an adolescent’s behavior. The current study investigates which dimensions of school climate, from a student’s perspective, are associated with adolescents’ antisocial behavior, and it was hypothesized that three dimensions of school climate (teacher support, school policies against violence, and structural environment of school) will be associated with students’ antisocial behaviors: substance abuse, fighting, vandalism and theft.

The term “school safety” refers to and includes the critical and necessary environment in which effective teaching and learning can take place. Derosier & Newcity (2005) showed that school climate was significantly related to school safety, particularly with interpersonal and environmental safety. Astor, Guerra and Van Acker (2010) demonstrated that students felt unsafe in unsupervised areas of the school building. In fact, there is a growing body of research that illuminates how environmental variables, such as classroom layout, activity schedules, and student–teacher interactions, can influence student behaviors and feelings of safety (Conroy & Fox, 1994; Van Acker et al., 1996). There are complex sets of forces, including school climate and school safety, that shape...
the quality and character of each school and we have much to learn about the specific needs of different types of schools. It is known that school climate in public schools was less favorable than in private schools (McMillen, 1988). Mihalas et al. (2009) emphasized the importance of caring relationships between teachers and students with emotional and behavioral problems to create a positive school climate. Also, McEvoy (2000) revealed that school climate factors accounted for 63 % of the variation in mean school achievement between low and high achieving schools. Comparisons between academically successful and less successful schools have indicated that teachers perceptions of school climate in the area of collegial leadership, professional teacher behavior, and achievement press were found to differ significantly across these two types of schools (Milner & Khoza, 2008).

However, the research is not clear in identifying how various aspects of perceived school climate and school safety differentiate mainstream schools, schools for pupils with special needs and training schools – schools for juvenile delinquents. The second hypothesis was raised: three dimensions of schools climate (teacher support, school policies against violence, and structural environment of school) and schools safety differentiate three types of schools being most favorable in mainstream schools and last favorable in training schools.

**Aim of the study** was twofold: (1) to compare three dimensions of school climate (teacher support, school policies, and school structural environment), school safety and adolescents’ antisocial behavior between three types of schools, and (2) to find connections between three dimensions of school climate, school safety and adolescents’ antisocial behavior across three types of schools: training schools, special schools, and mainstream schools.

**Method**

**Subjects**

Data were drawn from study involving overall 506 middle school students (M = 15.22) from Estonia: Juvenile delinquents in two training schools (N = 80; boys: 65, girls: 25, whole sample; training schools are the facilities that exist for the juvenile male and female offenders who have committed criminal acts for which, if adults, they would be sentenced to periods of imprisonment); pupils with special educational needs in three randomly selected schools (N = 145; boys: 82, girls: 63); and pupils in nine randomly selected mainstream schools (N = 281, boys: 281, girls: 130), whereby the age of all subjects was the same – 14–17 years olds, and the gender distribution was approximately equal in special schools and mainstream schools.
Instruments

**School climate**

Information on school climate was obtained through the students’ responses on a self-reported questionnaire developed by Astor et al. (2006). Students were asked to rate their level of agreement with a series of statements describing school climate on three dimensions:

1. **School policies against violence.** This subscale included four questions about students’ judgments concerning school policies or procedures aimed at reducing violence.

2. **Teacher support.** This subscale included six questions about teachers’ supportive relationships with students.

3. **School structural environment.** This subscale included three questions regarding the maintenance of school grounds and the classroom: cleanliness, inviting aesthetic quality and size of school. This instrument aggregated students’ perception of school climate at the school level to describe the whole school.

**Indicators of school safety**

**Missing school due to fear of school violence**

This school safety variable was measured by a single question. Respondents need to indicate, ‘During the last 4 weeks, how many times did you not come to school because you were afraid that somebody would hurt you in school or on the way to school?’, on a scale of 0 – never, not even once; 1 – once; 2 – twice; 3 – more than twice.

**Perceived seriousness of school violence as a problem**

This school safety variable was measured by a single question. Respondents need to rate the magnitude of the problem of violence in their school on a scale that ranged from 1 – not at all or very little problem to 5 – a very big problem.

The school safety was used to assess students’ perceptions of safety at their school across two areas (real and perceived), including violent activity, and was based questions consisting in Astor et al. (2006) study.

**Students’ antisocial behavior**

This category of variables included issues related to the pupils’ antisocial behavior: substance use, theft, student fights and vandalism acts. Students were asked how often they were engaged in these types of behaviors in school during the past month. The scale ranged from 1 (never) to 5 (very often). Examples include the following: “Students getting into fights”; “Students destroying things”.

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Results

Descriptive analysis

Descriptive analyze of variables of study: A comparison of mainstream, special and training schools students’ perceptions of school climate, school safety and students’ antisocial behavior at school are shown in the table 1.

Table 1. Mean scores and differences of the variables of the study

<table>
<thead>
<tr>
<th>Variable</th>
<th>Training school (A)</th>
<th>Special school (B)</th>
<th>Mainstream school (C)</th>
<th>A–B (t-value)</th>
<th>A–C (t-value)</th>
<th>B–C (t-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher support</td>
<td>2.73</td>
<td>3.03</td>
<td>3.31</td>
<td>3.68**</td>
<td>6.67**</td>
<td>4.37**</td>
</tr>
<tr>
<td>School policies against violence</td>
<td>2.78</td>
<td>3.28</td>
<td>3.70</td>
<td>5.25**</td>
<td>10.23**</td>
<td>5.24**</td>
</tr>
<tr>
<td>Structural environment</td>
<td>3.53</td>
<td>3.55</td>
<td>3.59</td>
<td>0.12</td>
<td>0.32</td>
<td>0.22</td>
</tr>
<tr>
<td>School safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing school due to fear of school violence</td>
<td>0.28</td>
<td>0.19</td>
<td>0.12</td>
<td>1.89*</td>
<td>2.80**</td>
<td>2.06*</td>
</tr>
<tr>
<td>Perceived seriousness of school violence</td>
<td>3.47</td>
<td>3.11</td>
<td>3.00</td>
<td>2.57*</td>
<td>2.41*</td>
<td>1.94*</td>
</tr>
<tr>
<td>Pupils’ antisocial behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance use</td>
<td>4.07</td>
<td>3.80</td>
<td>3.48</td>
<td>1.92*</td>
<td>4.47**</td>
<td>2.89**</td>
</tr>
<tr>
<td>Theft</td>
<td>2.60</td>
<td>2.39</td>
<td>2.36</td>
<td>1.84*</td>
<td>2.01*</td>
<td>0.13</td>
</tr>
<tr>
<td>Vandalism</td>
<td>3.56</td>
<td>3.00</td>
<td>2.94</td>
<td>3.70**</td>
<td>5.37**</td>
<td>0.38</td>
</tr>
<tr>
<td>Fights</td>
<td>3.48</td>
<td>3.22</td>
<td>3.19</td>
<td>2.06*</td>
<td>1.96*</td>
<td>0.28</td>
</tr>
</tbody>
</table>

* p < 0.05; ** p < 0.01

Analysis of results indicated that there were significant differences between three types of school in their frequency levels of students antisocial behavior: (1) highest among training schools students in the area of vandalism acts, fights and theft compared with special and mainstream school pupils’ ratings, and (2) highest substance use among training school students and lowest among mainstream school students, whereby in the middle among pupils with special needs.

In the area of school safety there were following tendencies: (1) the rate of missing school due to fear of school violence was highest among training school students, intermediate among special school students, and lowest among mainstream school pupils; and (2) the perceived seriousness of school violence was highest among juvenile delinquents and lowest among mainstream schools participants, whereby in the middle among children with special needs.
Across the three dimensions of school climate there were differences between three types of schools across two dimensions – lowest ratings among training schools in the scale Teacher support and School policies against violence, intermediate among special schools and highest ratings among mainstream school pupils across these two dimensions. There were no differences between ratings to the third school climate dimension – structural environment, among training school, special school and mainstream school students.

Consequently, the hypothesis that three dimensions of schools climate (teacher support, school policies against violence, and structural environment of school) and schools safety differentiate three types of schools was confirmed partially: schools climate across two dimensions (teacher support and school policies against violence) was most favorable in mainstream schools and last favorable in training schools; and schools safety (indicators: Missing school due to fear of school violence and Perceived seriousness of school violence) was most favorable in mainstream schools and last favorable in training schools.

**Correlational analysis of variables of study**

In order to examine the pattern of inter-relations among the school climate subscales, correlation analyses were conducted. As Table 2 shows, the subscales were consistently correlated with one another. However, the magnitude of the correlations shows that, while positively inter-related, the subscales were not redundant with one another. In other words, each subscale represents unique information that was not captured within another subscale.

This cross-sectional study explored the associations between three-dimensional school climate, school safety and pupils’ antisocial behavior. Results indicated that two dimensions of school climate – teacher support and school policies against violence, were significantly associated with school safety (indicators: Missing school due to fear of school violence and Perceived seriousness of school violence), and as well as adolescents’ antisocial behaviour, whereby there were no significant associations between structural environment of school, as a third dimension of school climate, and school safety or pupils antisocial behaviour. Consequently, correlation analysis indicated that two dimensions of school climate – high teacher support and school policies, showed bivariate links with low levels of adolescents’ antisocial behaviour and high levels of school safety.

Additionally, there were significant negative correlations between school safety (indicators: Missing school due to fear of school violence and Perceived seriousness of school violence) and adolescents’ antisocial behaviour, reflecting the link between higher school safety and lower frequency of pupils antisocial behaviour at three types of school.

The hypothesis that three school climate scales will be associated with key students’ antisocial behaviors of substance abuse, fighting, vandalism and theft was partly improved. Result indicated that two dimensions of school climate (teacher support and school policies), but not structural environment of schools, were significantly associated with school safety as well as adolescents’ antisocial behaviour in three types of schools (training schools, special schools and mainstreams schools).
Table 2. Intercorrelations among variables of the study

<table>
<thead>
<tr>
<th>Variable</th>
<th>Teacher support</th>
<th>School policies against violence</th>
<th>Structural environment</th>
<th>Missing school due to fear of violence</th>
<th>Perceived seriousness of school violence</th>
<th>Antisocial peer behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher support</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School policies against violence</td>
<td>0.25</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural environment</td>
<td>0.13</td>
<td>0.06</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing school due to fear of school violence</td>
<td>–0.75**</td>
<td>–0.30*</td>
<td>–0.06</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived seriousness of school violence</td>
<td>–0.54**</td>
<td>–0.58**</td>
<td>–0.08</td>
<td>–0.50**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Pupils’ antisocial behavior</td>
<td>–0.78**</td>
<td>–0.81**</td>
<td>–0.04</td>
<td>–0.35*</td>
<td>–0.48**</td>
<td>1</td>
</tr>
</tbody>
</table>

* p < 0.05; ** p < 0.01

Conclusions and Recommendations

A growing body of research indicates that positive school climate is critical to effective students risk behavior prevention (e.g. Catalano et al., 2002; Greenberg et al., 2003; Thapa, 2013). If we wish to support healthy students’ development, we must foster the school environment where adolescents’ interests and needs in different types of schools are satisfied.

This cross-sectional study explored the associations between three contextual variables across training schools, special schools and mainstream schools: school climate, school safety and pupils’ antisocial behavior. The current study adopted a three-dimensional conceptualization and measurement of school climate. Namely, school climate in this study was limited to three domains that were previously identified as relevant to school violence (Astor et al., 2006). These three aspects of school climate have been examined in this study were: teacher support, school policies against violence, and structural environment of school. Correlation analysis indicated that two dimensions of school climate – high teacher support and school policies against school violence, showed bivariate links with low levels of adolescents’ antisocial behavior. Thus, the present study adds to the body of evidence that a positive school climate – in this study, limited to two domains (teacher support and school policies) relevant to school.
violence prevention efforts – is associated with lower levels of students’ involvement in antisocial behaviors.

It was also revealed that positive school climate in the area of teacher support and school policies against school violence (in training schools, special schools and mainstream schools) was linked to greater school safety. Furthermore, teacher–student support and school policies and procedures against violence were more strongly associated with school safety and pupils’ antisocial behaviour than structural environment in school. Thus, there is a consensus regarding two important sets of variables relating to school climate, one being relationships between teachers and students and the second relating to procedures aimed at reducing violence in schools and emphasize greater school safety. Also Cohen et al. (2009) found that school policies and positive relationships between teachers and students were associated negatively with school victimization. Selman et al. (2010) found that positive student–teacher relationship as component of school climate was associated with lower probability and frequency of subsequent behavioral problems.

Although these are correlational data that cannot establish a causal relationship, the pattern of findings is consistent with the view that two characteristics of the school climate – teacher support and school policies against school violence, might influence pupils risk behavior and are connected with school safety. Such a relationship could be bidirectional or cyclical as well. These results suggest that efforts to improve these aspects of the school could have a protective effect in reducing or preventing students’ antisocial behavior. Thus, school climate matters and our commitment to broadening the vision of inclusion requires school climates to reflect at least two characteristics – teachers’ support and general school policies against violence. Success of prevention and intervention programs, therefore, hinges on their ability to identify and modify school climates and safety in which antisocial behavior emerge.

At the other side, this cross-sectional study explored the differences between three school contexts variables: three-dimensional school climate, school safety and pupils’ antisocial behavior in three types of schools. Findings revealed that students in training schools perceived lowest levels of teacher support and school policies against school violence than students in special schools and mainstream schools, although certain dimensions of the school’s climate – school structural environment, was perceived similarly across three types of schools. Furthermore, students’ perceptions of teacher support and school policies, but not maintenance of school grounds, were negatively associated with adolescents’ antisocial behavior specifying a link between school climate and students’ antisocial behavior. Looking deeply into the issue of school climate in different types of school we can help educators and parents better understand and appreciate the often dramatically different school experiences that different groups of young people contributing a prevention of adolescents’ antisocial behavior in schools.

Also, students’ perceptions of favorable schools safety were strongly associated with frequent pupils’ antisocial behavior, whereby the probability of exhibition of serious
antisocial behavior (theft, vandalism, fights) was highest in training schools compared with the mainstream and special schools. A positive school safety could be an important protective factor in preventing students’ antisocial behavior in all three types of schools (training school, special schools and mainstream schools) especially in training schools where the safety ratings were lowest.

School climate and schools safety research provides a basis for assessing which prevention and intervention programs are likely to be effective in addressing the reciprocal relationship that we know exists between school contextual variables across training schools, special schools and mainstream schools.

References


Mokyklos klimato, mokyklos saugumo ir paauglių asocialaus elgesio tarpusavio ryšys: lyginamasis aspektas trijų tipų mokyklose

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Santrauka


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