School Characteristics as Predictors of Bullying and Victimization Among Greek Middle School Students

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Abstract

Numerous studies have focused on individual characteristics of bullies and victims, without careful examination of contextual factors that might influence bullying and victimization in school settings. The present pilot study investigates the association of school climate and school's response to bullying incidents with bullying and victimization in a sample of 114 students drawn from three Greek public middle schools. The participants completed a self-report questionnaire designed to assess their perceptions about: (a) the school climate, (b) the school's response to bullying, and (c) the extent of bullying and victimization in their school.

Data have been analyzed using correlations (Pearson r) and multiple regression analysis. Two variables of the school's response to violence (Peer Intervention and Teacher Intervention) accounted for 49% of the variance in bullying. Two variables of the school climate (Fear of School Violence and Discipline) accounted for 47% of the variance in victimization.

Our findings are consistent with the research literature and suggest that schools with a more positive climate have less victimization. Moreover, schools in which students and teachers intervene to stop the aggressive behaviors have less bullying.

Mots-clés

Bullying, victimization, school violence, school climate, teacher intervention, peer intervention.

INTRODUCTION

School bullying has been the object of systematic study since the late 1970's, thanks to the pioneering large-scale research carried out by Dan Olweus (1978) in Scandinavian countries. Since then, a variety of definitions have been formulated for bullying by researchers from all over the world, from different cultures and different branches of science. Although there is an extended scientific debate on the nature of bullying (Smith et al., 2002), many researchers define the current phenomenon as a subset of aggressive behavior characterized by (1) intentional harm-doing manifested by one student or a group of students towards some other student or group of students, (2) repetition of the hurtful actions, and (3) inability of the victim to defend him/her self because of an imbalance of physical and psychological power between bully and victim. Rigby (2002) adds that bullying involves also (4) unjustified aggression manifested without any apparent reason, (5) evident enjoyment by the bully, and (6) a sense of being oppressed on the part of the victim. Bullying includes a variety of negative actions such as physical attacks, verbal aggression, social exclusion, sexual harassment, hurtful messages through mobile phone or over the Internet, and property damage.

As far as the interpretation of bullying is concerned, a vast body of the literature is focused on the personality of the children involved in bullying incidents. The individual characteristics of bullies, victims and bully-victims have a long history of research in psychology (Andreou, 2000; Austin & Joseph, 1996; Georgiou & Stavrinides, 2008; Hodges & Perry, 1996). However, a number of recent studies on bullying have been oriented from the dyadic bully-victim relationship to the social contexts surrounding children's development and the complex interactions between children and their environment. These studies are mostly based on the ecological model of Bronfenbrenner (1979), presuming that the individual is surrounded by concentric circles representing the social contexts, from proximal to distal, that influence his development and his behavior. Of particular interest to the study of bullying and victimization is the immediate setting of the child or adolescent, defined as micro-system in the ecological developmental theory, including the family, the school, the peers and the neighborhood. Theoretical and empirical literature associated with bullying and victimization have focused primarily on the contexts of the family (Baldry & Farrington, 2000; Georgiou, 2008; Kokkinos & Panayiotou, 2007; Smith & Myron-Wilson, 1998), the peer group (Craig & Pepler, 1997; O'Connell et al., 1999; Salmivalli et al., 1996; Strohmeier et al., 2007) and the community (Leventhal & Brooks-Gunn, 2000; Morita 1996; Patchin et al., 2006), but only a few studies have explored the role of the school setting in which the bullying incidents are

manifested. There are many questions related to the school's influence that could be examined by research. For example: Why could bullying behaviors vary in severity and frequency in two schools situated within the same community? Why could a school situated in a poor neighborhood with high crime rates present low victimization rates? In which ways does the school contribute to bullying and victimization? It seems that, although the school reflects the attitudes and values of the broader community, the organization of the school unit and the quality of the interactions between the members of the school community contribute to intensify or to limit the manifestation of aggressive behaviors among students.

Recognizing the importance of the school setting, Benbenishty and Astor (2005) place the school, rather than the individual, in the center of their heuristic model that present school violence in nested contexts. Given the various definitions and limitations of the term "bullying", Benbenishty and Astor prefer to use the broader term of "school violence" that includes bullying, gang violence, vandalism and other violent behaviors manifested in school settings. Concerning the school characteristics associated with bullying and school violence in general, these could be divided into two main categories: (a) structural or exogenous characteristics that are largely beyond the control of the school such as school size or community poverty, and (b) internal school characteristics that are within the control of the school such as school climate or school's response to bullying and violence (Gottfredson et al., 2005). The subject of the current article is the examination of the second category of characteristics that depend on the school community, and not the exogenous characteristics that are fixed and determined by factors external to schools. The internal school characteristics are much easier to change than the composition of the population of the school or the socioeconomic level of the community.

The school climate. Research evidence indicates that a negative school climate is a contributing risk factor for bullying (Olweus, 1993; Rigby, 1996; Sullivan, 2000). Olweus (1993) emphasizes the importance of developing a positive school climate to reduce bullying, recommending: clear rules and sanctions against bullying behaviors, students participation in the elaboration of rules and sanctions, rewards and encouragement of positive and non-violent behaviors of aggressive students by teachers, non punitive sanctions of the aggressive behavior, and collective activities that promote collaboration and positive interactions among students. In spite of the emphasis which has been given to the influence of school climate on the students' behavior, the definition of this construct is not at all an easy task. In the first place, a variety of definitions have been formulated for the term "school climate" and in the second place, in most cases the keywords of each definition are not clearly defined. Along general lines, the school climate is defined as the set of

internal characteristics that distinguish one school from another and determine its "personality" (Hoy, 1990). The construct of school climate includes several dimensions such as the physical setting, the school culture, the organizational climate or the social climate (Anderson, 1982; Fotinos, 2006; Freiberg, 1999; Hoy, 1990; Janosz et al., 1998).

Gottfredsons are the pioneering researchers in USA who have systematically examined the association between school violence/victimization phenomena and components of school climate such as perceptions of school safety, clarity of rules, fairness of rules, respect for students, student influence on school affairs, and planning and action. According to Gottfredsons (1985, 2005), the main factors of school climate related to high levels of students' and teachers' victimization include: unclear, unfair or inconsistently enforced rules, ambiguous responses to student misconduct, inconsistent discipline management, poor teacher-administration co-operation, and punitive or authoritarian attitudes on the part of teachers. Furthermore, Furlong and colleagues (1991) examined the association between students' reports of victimization (e.g. bullying, personal injury, theft, verbal harassment), students' perceptions of school danger (e.g. drugs, vandalism, weapon carrying) and students' perceptions of school climate (e.g. feelings of safety, respect, support and interpersonal relationships). Based on the studies of Furlong's research team, Benbenishty and Astor (2005) relate school dynamic to cultural dynamics comparing schools from Israel with schools in California, and Israeli Jewish schools with Israeli Arab schools. In their studies, Benbenishty and Astor include components of school climate such as teacher support of students, school policy against violence, perceptions of safety and students' participation in decision making (Astor et al., 2006; Benbenishty et al., 2002).

In Europe, systematic empirical studies on the link between students' perceptions of school climate and students' victimization started in the 1990's (Blaya, 2006; Carra & Sicot, 1996; Cousin, 1993; Debarbieux, 1996, 2004). Through large-scale studies in European and Latin-American schools, Debarbieux explored the relationship between victimization and components of school climate such as general appreciation of the school, relationships between the members of the school community, and quality of education. According to Debarbieux (1998), schools with low victimization rates are mainly characterized by connectedness of school staff and partnership between school-parents. Furthermore, Carra and Sicot found that high victimization rates are associated with negative students' perceptions about the fairness of grades and sanctions, the application of the rules, and the treatment of students by teachers. It is clarified that the above studies concern the incidents of school violence victimization in general and not exclusively the incidents of bullying victimization. However, other recent

studies demonstrated the association between bullying victimization and components of school climate such as sense of school belonging, teacher support of students, and nonhostile consequences for behavioral infractions (Bosworth et al., 1999; Haynie, 2001; Murray-Harvey & Slee, 2006).

The school's response to bullying. According to the literature review, another important school factor associated with the level of bullying is the school's response to violent incidents, including the reaction of students and adults who observe aggressive behaviors. One of the primary reasons that bullying occurs is because the bully gains social prestige through the peer attention. O'Connell, Peppler and Craig (1999) found that when a higher number of peers observe an incident of bullying, the duration of the incident is longer. Furlong (2004) suggests that the intervention of peers is one of the most powerful ways to stop bullying. When the majority of bystanders react to the episodes of bullying by protecting the victims or reporting these incidents to teachers, the bullies are undermined and cease to resort to bullying behaviors to increase their status by imposing on other students.

Moreover, when the teachers turn a blind eye and tolerate or ignore the episodes of school bullying, then the students perceive the aggressive behavior as acceptable and natural. Olweus (1993) states that the levels of bullying are significantly reduced when all the adults of the school unit (teachers, principal, other staff) intervene immediately and systematically to stop any form of violence manifested in the school area.

The present study focuses on the role of the school setting on bullying/victimization phenomena. In particular, it examines the relation between bullying/victimization and internal school characteristics concerning: (a) the school climate, and (b) the school's response to bullying. "Bullying" is defined as the intentional, systematic and unjustified aggressive behavior that is exercised by a student or a group of students more powerful physically or psychologically towards another student or group of students less powerful. "Victimization" is defined as the result of bullying, namely as the exposure of a student or a group of students less powerful physically or psychologically to the intentional, systematic and unjustified aggressive behavior of another student or group of students more powerful. In other words, bullying and victimization are considered as two different aspects of the same phenomenon. As far as the construct of "school climate" is concerned, the current study is focused on the students' perceptions about dimensions of the school climate which have been linked either with bullying or with school violence in previous studies from the international literature. The examined dimensions of school climate are the following: (a) sense of fairness, (b) school belonging, (c) authoritarianism, (d) fear of school violence, and (e) discipline. Finally, the construct of "school's response to bullying"

encompasses: (a) peer intervention, (b) teacher intervention, and (c) adult awareness of bullying.

HYPOTHESES

According to the research reviewed above, the hypotheses of the present pilot study are as follows:

Hypothesis 1: the school climate and the school's response to bullying are correlated with bullying and/or victimization.

Hypothesis 2: the school climate and the school's response to bullying predict bullying and/or victimization.

METHOD

SAMPLE

The participants were 114 secondary school students (58 female, 56 male) drawn from three Greek public middle schools: two urban schools situated in Athens and one rural school situated on the island of Zakynthos. All the participants were in their second year of gymnasium with a mean age of 14.25 (SD=0.67). Two classes of the second year from each gymnasium participated in the study. The sample is non-random and can be described as a convenience sample. However, the proportion of the sexes (49.1% boys, 50.9% girls) is typical among students in secondary education in Greece.

PROCEDURE

The questionnaires were administered in class by the researchers. At the beginning of the class students were informed that their participation was voluntary and confidential and that they could opt out if they wished. Students were instructed to complete the questionnaire anonymously. The importance of answering truthfully was emphasized. The questionnaires were usually completed within 30 to 40 minutes.

INSTRUMENTS

A self-report questionnaire was utilized to assess student perceptions about the school climate, the school's response to bullying, and the extent of bullying and victimization in each school. This questionnaire was designed after thorough analysis of instruments with strong psychometric properties used in previous studies from the literature review, such as: the Effective

School Battery (ESB; Gottfredson, 1984), the California School Climate and Safety Survey (CSCSS; Furlong, Morrison & Boles, 1991) adapted by Benbenishty and Astor (2005), the Revised Olweus Bully/Victim Questionnaire for Students (Olweus, 1996) and the Vernberg's Peer Experiences Questionnaire (Vernberg, Jacobs & Hersheberger, 1999).

The questionnaire of the current pilot study is divided into four sections. The first section refers to the students' demographic data (sex, age, nationality). For the other three sections of the questionnaire, exploratory factor analysis was conducted and factors were extracted based on eigenvalues, percentage of variance explained, and examination of scree plots. Items that had factor loadings above .50 were retained. The subscales of each section are described below.

School Climate Section

Sense of Fairness is a 15-item scale that measures student perceptions about: (a) the clarity, fairness and consistent application of the rules, (b) the fairness of rewards and sanctions, (c) the positive or negative treatment of students by teachers, and (d) the extent to which the school is open to students' suggestions. A high score means that students perceive fairness in their school. Reliability coefficient alpha for this scale was .93.

School Belonging is an 8-item scale that measures: (a) students' liking for school, (b) students' care for school work and interest in the dispensed education, and (c) students involvement in school activities. A high score implies strong feelings of belonging. Reliability coefficient alpha for this scale was .81.

Authoritarianism is a 3-item scale that measures the extent to which teachers resort to authoritarian practices in order to impose discipline in the class, such as threats, hour suspensions, etc. A high score indicates that many teachers use punitive and non flexible methods of enforcing discipline. Reliability coefficient alpha for this scale was .78.

Fear of School Violence is a 3-item scale that measures the degree to which students feel unsafe on school grounds and around the school. A high score suggests that many students fear becoming the victims of school violence. Reliability coefficient alpha for this scale was .69.

Discipline is a 2-item scale that measures the extent to which students respect the school rules and their teachers. A low score implies a great deal of rebellious student behavior. Reliability coefficient alpha for this scale was .71.

School's Response to Bullying (SRB) Section

Peer Intervention is a 2-item scale that measures how often students intervene in order to stop bullying in their school. A high score indicates that many students intervene and help the victim. Reliability coefficient alpha for this scale was .90.

Teacher Intervention is a 2-item scale that measures how often teachers intervene in order to stop bullying. A high score indicates that many teachers intervene in order to stop bullies when they perceive bullying incidents in the school areas. Reliability coefficient alpha for this scale was .82.

Adult Awareness of Bullying is a 2-item scale that measures the extent to which adults (teachers and principal) are aware of instances of bullying. A low score indicates that adults are unaware of bullying incidents that occur in their school. Reliability coefficient alpha for this scale was .73.

Bullying and Victimization Section

Bullying is a 6-item scale that measures frequency of having bullied someone in the school. This scale requires participants to report the frequency with which they adopt bullying behaviors. It was considered to be preferable not to give a definition of bullying to participants and not to refer to that specific term, in order to avoid any misinterpretations by the students. A high score implies high levels of bullying. Reliability coefficient alpha for this scale was .91.

Victimization is an 8-item scale that measures frequency of having been bullied at school. The items used in this scale reflect specific situations of victimization. A high score implies high levels of victimization. Reliability coefficient alpha for this scale was .85.

RESULTS

Exploratory factor analyses with Varimax were conducted separately for the school climate variables, the school's response to bullying (SRB) variables, and the bullying/victimization variables in order to examine the factor structure of the three distinct sections of the questionnaire. Factor analysis on the school climate variables yielded a solution with a variance explained of 45%. The items loaded on to five distinct factors representing sense of fairness, school belonging, authoritarianism, fear of school violence, and discipline. Similarly, factor analysis on the SRB variables yielded a solution with a variance explained of 67%. The items loaded as predicted on to three distinct factors representing peer intervention, teacher intervention, and adult awareness of bullying. Finally, factor analysis on the

bullying/victimization variables yielded a solution with a variance explained of 60%. The items loaded as predicted on to two distinct factors representing bullying and victimization.

Since the school climate, the SRB, and the bullying/victimization factors showed strong internal consistencies, we computed a composite variable for each construct, which represents the mean score for each case on the items that compose each factor. Table 1 shows the means and standard deviations for each latent construct.

Table 1: Means and standard deviations for the composite scores on the factors of the school climate, the school's response to bullying, and the bullying/victimization

Variable	Mean	Standard Deviation	Range
School Climate			
Sense of Fairness	2.62	.75	1.00 – 3.73
School Belonging	2.90	.61	1.00 – 3.75
Authoritarianism	1.97	.81	1.00 – 4.00
Fear of School Violence	1.28	.53	1.00 – 3.67
Discipline	1.86	.62	1.00 – 3.50
School's Response to Bullying			
Peer Intervention	3.92	1.08	1.00 – 5.00
Teacher Intervention	3.33	1.35	1.00 – 5.00
Adult Awareness of Bullying	2.32	1.20	1.00 – 5.00
Bullying/Victimization			
Bullying	1.36	.78	1.00 – 5.00
Victimization	1.56	.63	1.00 – 4.00

Before proceeding to multiple regression analysis, we computed bivariate correlations in order to identify associations among school climate, SRB, and bullying/victimization subscales. Table 2 shows details of these correlations. As expected, almost all the school climate factors (except Fear of School Violence that is significantly related to Victimization) are significantly related to Bullying. More particularly, Sense of Fairness, School Belonging and Discipline have a significant and negative correlation with Bullying, whereas Authoritarianism has a significant and positive correlation with Bullying. Fear

of School Violence has a significant and positive correlation with Victimization, whereas Discipline is negatively correlated with Victimization. Sense of Fairness, School Belonging and Authoritarianism are not significantly correlated with Victimization. Moreover, another finding that must be noted is the significant and negative correlation of Authoritarianism with the three SRB factors (Peer Intervention, Teacher Intervention and Adult Awareness of Bullying).

Table 2. Correlation coefficients among study variables

	1	2	3	4	5	6	7	8	9	10
1. Sense of Fairness	–	.58**	-.67**	.09	.41**	.22	.54**	.20	-.39**	.07
2. School Belonging		–	-.36**	-.00	.25*	.17	.37**	.17	-.36**	.12
3. Authoritarianism			–	-.17	-.26**	-.31**	-.38**	-.36**	.52**	-.13
4. Fear of School Violence				–	-.02	.12	.13	.15	-.09	.68**
5. Discipline					–	.10	.17	.09	-.26**	-.20*
6. Peer Intervention						–	.16	.13	-.37**	.12
7. Teacher Intervention							–	.44**	-.27*	-.00
8. Adult Awareness of Bullying								–	-.13	.11
9. Bullying									–	-.08
10. Victimization										–

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

As far as the SRB factors are concerned, it was found that Peer Intervention and Teacher Intervention have a significant and negative correlation with Bullying, whereas these factors are not significantly correlated with Victimization. Moreover, Peer Intervention is more highly related to Bullying than Teacher Intervention. Adult Awareness of Bullying is not significantly correlated with Bullying or Victimization, but it is positively correlated with Teacher Intervention and negatively correlated with Authoritarianism.

The next step in the data analysis was to compute a multiple regression analysis (enter) in order to examine: (a) whether school climate factors predict bullying and/or victimization, and (b) whether SRB factors predict bullying and/or victimization. As Table 3 shows, school climate factors do not significantly predict bullying. However, two school climate factors – Fear of School Violence and Discipline – predict victimization. The model for

victimization accounts for 47% of the variance in victimization (see Table 4). Fear of School Violence, in particular, shows the strongest effects and predicts victimization positively, whereas Discipline predicts victimization negatively. Two SRB factors – Peer Intervention and Teacher Intervention – have relatively large, negative effects on bullying, but Adult Awareness of Bullying does not significantly predict bullying or victimization. The model for bullying accounts for 49% of the variance in bullying. Peer Intervention shows the strongest effects on the dependent variable. Finally, the SRB factors do not significantly predict victimization.

Table 3. Multiple regression analysis results for school climate factors and SRB factors as predictors of bullying

Independent variables	β	R^2
Peer Intervention	-.33**	
Teacher Intervention	-.19*	
Sense of Fairness	.13	
School Belonging	-.05	
Authoritarianism	.12	
Discipline	-.18	.49**

Note: *$p<.05$, **$p<.01$.

Table 4. Multiple regression analysis results for school climate factors as predictors of victimization

Independent variables	β	R^2
Fear of School Violence	.81**	
Discipline	-.16*	.47**

Note: *$p<.05$, **$p<.01$.

DISCUSSION

In this study, we tested the hypotheses that (a) the school climate and the school's response to bullying are correlated with bullying and/or victimization, and (b) the school climate and the school's response to bullying predict bullying and/or victimization. Prior to the findings' analysis, it is

important to point out the limitations of the present study. Firstly, this study was conducted in a small convenience sample of 114 students drawn from three Greek public middle schools. Therefore, it may be difficult to generalize findings. Secondly, for the collection of the data the researchers created a questionnaire using items from previous instruments (see "Instruments") modified to fit the Greek educational context. The psychometric properties of this questionnaire were not tested before. However, this study ascertained the readability of items and has shown satisfactory psychometric properties (e.g. factor structure and Cronbach alphas). Thirdly, our results demonstrate that schools with a negative climate and lack of care and support among the members of the school community have higher levels of bullying and victimization. However, it is impossible to establish causality from these data. We are unable to tell whether the quality of school climate and the school's response to bullying influence the levels of bullying, or whether high levels of bullying influence students' perceptions about the quality of school climate and the reaction of students and teachers toward bullying behaviors. Probably, a transactional model emphasizing both directions of causality would be the most appropriate model to use. Future studies could examine the bidirectional influence between bullying/victimization and internal school characteristics. Fourthly, potentially influential characteristics of the school unit such as parent involvement or partnership school-community are omitted from our models. Finally, the data were collected from student self-reports. Corroborating data from other informants (e.g. teachers or principals) would have made the findings more robust. However, several studies have reported that bullying behaviors occur in locations and at times in which adult supervision is limited or nonexistent (Bosworth et al., 1999). Moreover, it is difficult for adults to notice indirect forms of bullying among students such as social exclusion or spreading of nasty rumors.

Despite these limitations, the present study reaffirms results of previous investigations demonstrating the link between bullying/victimization phenomena and internal characteristics of the school setting.

School Climate

In the correlational analysis, bullying and victimization were associated with the examined dimensions of school climate, as predicted by the first hypothesis. Firstly, as far as the sense of fairness is concerned, the significant and negative association of this independent variable to bullying shows that in schools with high levels of bullying, students consider their treatment by adults to be unequal, the rules to be unfair, and student participation in decision-making to be very limited. The relationship between the fairness perceived by students and bullying or school violence is consistent with results of previous studies. In France, Carra and Sicot (1996) found that in

schools with a high level of school violence victimization, there is a significantly higher number of students who consider their grades to be unfair, the application of the rules to be inconsistent, the sanctions imposed to be arbitrary and the treatment of students by teachers to be uneven. Gottfredson and colleagues (2005) found that schools in which students report that the rules are fair experience less student victimization and student delinquency.

Secondly, as far as the sense of school belonging is concerned, the findings have shown that in schools with high levels of bullying, students do not like school, they are not interested in school work and are not involved in school activities. Other studies have also shown that reduced school belonging of students in their school is correlated with bullying (Bosworth et al., 1999; Murray-Harvey & Slee, 2006; Slee, 1995) as well as with behavioral outcomes such as criminal involvement or gang membership (Catalano et al., 2004). Slee (1995) suggests that Australian students who bullied were more likely to report feeling unhappy at school. In addition, the results of a cross-national study of Murray-Harvey and Slee (2006) with a large sample of Australian and Japanese grade 5-10 students have shown that lower levels of school belonging are significantly correlated with bullying.

Thirdly, particular attention must be given to the significant positive correlation between bullying and authoritarian practices of enforcing discipline in the school. It seems that levels of bullying are higher in schools where teachers use authoritarian and inflexible practices to cope with student misbehavior. This finding is also confirmed by other studies. In their efforts to reduce student misconduct, often teachers and school authorities use punitive techniques such as psychological assault, suspensions or expulsions. However, according to several previous studies, these practices may increase student anger and aggression against peers, authorities and school property (Dornan, 1978; Hart & Brassard, 1987). Yoneyama and Naito (2003) suggest that authoritarian and humiliating discipline techniques contribute to students' abusive behavior towards peers. Punishment and use of power over the bully only reinforce the notion that power is an effective social tool. In addition, the significant negative correlation of authoritarianism with the three SRB factors (peer intervention, teacher intervention and adult awareness of bullying) must be emphasized. As appears, in schools where teachers use authoritarian and punitive techniques, students intervene less often when they perceive bullying incidents. A logical explanation of this finding is that in an authoritarian school environment which does not cultivate the child's tendency to self action and initiative, the students adopt more passive behaviors and do not react to stop violent episodes among their classmates. Furthermore, the significant negative correlation of authoritarianism with adult awareness of bullying may be due to the fact that

the authoritarian practices of enforcing discipline distance the students from their teachers and decrease trust in them. Consequently, students do not inform teachers of violent episodes among their classmates and teachers do not intervene because of course they are unaware of bullying incidents. This logical explanation is also verified by the significant negative correlation between authoritarianism and teacher intervention to stop bullying.

Fourthly, as far as the fear of school violence is concerned, this school climate factor is positively associated with victimization and, in addition, constitutes a predictive factor that explains a substantial percentage of the variance for victimization. Consequently, we can conclude that in schools with high levels of victimization, students are more likely to fear becoming the victims of school violence. Benbenishty and Astor (2005) suggest that students' nonattendance of school due to fear of violence is influenced mainly by their personal experiences of peer violence on school grounds. Moreover, they emphasize that "to decrease fear effectively, interventions should focus on reducing students' experiences of victimization" (Benbenishty & Astor, 2005, p. 105). It seems, as well, that the incidents of victimization do not affect only the victims of bullying behavior, but also the other students, who witness acts of bullying in their school. According to Ferraro (1994), fear may stem also from indirect victimization experiences (e.g., witnessed occurrences or secondhand reports).

Finally, as far as the discipline is concerned, this school climate variable is negatively associated with bullying as well as with victimization. Moreover, discipline also constitutes a predictive factor that explains a less important percentage of the variance for victimization than the fear of school violence. The link between discipline, fear of school violence and students' violent behaviors is also emphasized in previous research. In a cross-national study which examines the predictive factors of students' fear of victimization in 33 countries, Akiba (2008) suggests that school disorganization predicts students' fear of school violence. He adds that "classroom disorder characterized by student disobedience, disengagement with learning, and excessive noise in class can be perceived by students as signs of lack of teacher control in the classroom, which could invoke their fear of peer students' violent behaviors" (Akiba, 2008, p. 56). Gottfredson and colleagues (2005) state that schools in which students report that the discipline is consistently managed experience less student victimization and less student delinquency.

According to the findings mentioned above, the second hypothesis of the present study is partially confirmed. Two school climate factors – the fear of school violence and discipline – predict victimization, although the results of the multiple regression analysis indicate that school climate factors are no longer associated significantly with bullying. These findings highlight the

need to use multiple regression analysis in assessing correlates of bullying and victimization. Although bullying is not predicted by school climate factors, it is predicted by two RSB factors: peer intervention and teacher intervention.

SCHOOL'S RESPONSE TO BULLYING

As far as peer intervention is concerned, the results of the current study emphasize the role of the peer group in the manifestation of bullying behaviors in school grounds. The importance of the peer group has been emphasized by many researchers (Craig et al., 2000, O'Connell et al., 1999, Salmivalli et al., 1996). Throughout preadolescence and adolescence, the peer group plays an especially important role. In their attempt to become autonomous from their parents, adolescents turn to their peers and seek their acceptance. For this reason, the peer reaction toward bullying behaviors is powerful and determines the effectiveness of intervention programs against bullying. Bystanders can directly encourage or restrain bullying behaviors because they are almost always present when incidents of bullying occur. Olweus (1993) states that in order to understand the phenomenon of bullying it is not sufficient to study only its impact on the bully-victim dyad. School bullying constitutes a collective phenomenon. If the bully's aggressive behavior is reinforced by increased popularity and social status among his/her peers, it is very likely that students with low self-esteem will imitate him/her. In this way a vicious circle is created, since the participation of many students in bullying behaviors reduces the sense of individual responsibility to help the victims. According to Furlong and colleagues (2004), in part, bullying occurs because it can. It is important that student consciousness is raised about the processes of bullying and the individual's responsibility as a bystander. Furlong suggests that "training should focus on increasing empathy for the victims as well as provide peers with strategies to encourage them to withstand the pressures of their peer groups" (Furlong et al., 2004, p. 299).

Finally, results of multiple regression analysis demonstrate that, besides peer intervention, teacher intervention is also an important predictor of bullying. Previous studies have shown that anti-bullying intervention can be successful only if the school staff is highly committed to stop bullying (Olweus, 1999, Pepler et al., 2004). In order to reduce bullying behaviors, the teachers must transmit to students the message of non-tolerance of violence and its effective restriction in their school. Moreover, in the correlational analysis, the significant positive association of teacher intervention with adult awareness of bullying is in line with Olweus's suggestion that school personnel consistency in awareness and response to victimization are stongly related processes (Olweus, 1999). Teachers should create conditions that encourage both victims and bystanders to report incidents of bullying. In schools characterized by frequent teacher collaboration and frequent teacher-

student interaction, students feel that they are protected by teachers from potential violence (Akiba, 2008).

CONCLUSION

The focus of this pilot study has been to further understand why the phenomenon of bullying/victimization flourishes in some schools although it is rare in others. The results demonstrate that several dimensions of school climate such as low sense of fairness, low school belonging and teacher authoritarian practices are associated with bullying behaviors, while other dimensions of school climate such as students' fear of school violence and lack of discipline are predictive of students' victimization in a school. Furthermore, the immediate reaction of peers and teachers in order to stop every form of violence among students could be an important protective factor against bullying.

Further research is required in order to explore the internal school characteristics increasing the protective possibilities that are available in the school setting. Within-school and between-school comparisons as well as temporal comparisons are necessary for the identification of risk and protective factors in schools (Benbenishty et al., 2003). Solutions focused on the bully-victim relationship and techniques for changing individuals seem less effective than a systemic change of school climate and social interactions among the members of the school community.

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