

# SCHOOL ADJUSTMENT IN BULLIES AND BULLIED ADOLESCENTS

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**Abstract:** Bullying is not a new phenomenon and across countries is receiving increased attention. What is new is the growing awareness that bullying as serious consequences for both students, their peers and schools. The purpose of this study was to examine the relationship between different levels of school adjustment and bullying. Using stratified random sampling, a sample of 581 students aged 12 to 17 years from 11 schools of Lisbon was drawn. Data was collected using the *Health Behaviours in School-aged Children (HBSC)* used by the World Health Organization (WHO) to assess, among others, peer acceptance, friendship, and feelings of safety, pleasure and boredom at school; the *Harrier Self-Perception Profile for Adolescents*; a *Peer Nomination Inventory* to identify bullies, victims, bully-victims and not involved; and a *Sociometric Questionnaire* to assess student's social status (popular, average, neglected, and controversial). Results show that the impact of these different factors varied within subgroups of bullies, victims and bully-victims.

**Introduction:** Concern about students who bully others and/or are victimized by their peers has increased as a result of research conducted on bullying behaviour in schools. Findings from some of these studies suggest that approximately 9%-10% of 8-16 year-olds students are involved in bullying behaviours on a regular basis.

Bullying produces significant problems during the school years, some of which carry over into adulthood. Because of this, it would prove helpful to teachers or other professionals in school, to know whether bully and/or victim status correlated with other risk behaviours. Awareness regarding patterns of risk behaviour may aid school in the early identification of both bullies and victims. The outcomes of bullying and victimization are serious over the long term, among others, put students at risk for failure in school. There is growing evidence that students involved in bullying behaviours appear to have greater difficulty adjusting to school, specially victimized students. Compared to non victimized classmates, they tend to be lonelier (Boulton & Underwood, 1992; Kochenderfer & Ladd, 1996; Sharp et al., 2000; Storch, Masia-Warner & Brassard, 2003), and less happy in school (Matos & Carvalho, 2001; Boulton & Underwood, 1992; Slee & Rigby, 1993), and display lower levels of school liking and higher levels of school avoidance (Kochenderfer & Ladd, 1996). This study examined whether involvement in bullying behaviours are related to school maladjustment. More closely, compared bullies, victims, bully-victims and not involved in relation to some school-behavioural characteristics (academic achievement, school affect, peer perceived acceptance, sociometric

status) and personality measures (self-esteem and self-regard), to examine if their involvement leads to the formation of negative school attitudes, perceptions or feelings, to peer acceptance difficulties or a lower academic achievement.

**Method:** In the present work we've chosen to study bullying in Lisbon's metropolitan area. Our sample was selected through a random sampling divided in three phases. First a selection of five subdivisions of Lisbon's district, second a selection of one to three schools in each subdivision (according to the existing number of middle schools), and finally the selection of three classes in each school, relating to the three grades considered (respectively seventh, eighth and ninth grades).

**Subjects:** The initial sample was composed of 680 students attending eleven middle public schools, however, as two continuous variables were used to classify the four categories of bullying behaviour, ninety-nine students whose scores were between the cut-off values as suggested by Bastin (1980) were eliminated in order to avoid ambiguous bullying ranks.

Our final sample was composed of five hundred and eighty-one students aged twelve to seventeen years old (n= 581). Fifty four per cent of girls (54,7%) and forty five per cent of boys (45,3%),

**Measures:** All subjects completed the *Health Behaviour in School-aged Children, a Sociometric Questionnaire*, a *Peer Nomination Inventory* and the *Harrier Self-Perception Profile for Adolescents*. The *Health Behaviour in School-aged Children (HBSC)* is a questionnaire used by the World Health Organization (WHO) cross-national study in the field of adolescent health research, and includes a set of questions covering, among others: school affect; perceptions of peer relations and support as well as bullying behaviour.

We examined six items assessing dimensions of *peer perceived acceptance*, by asking the students: "Do you usually spend some time with friends after school?"; "Does it happen that your school-mates don't join you in school and you became alone?"; "How many close friends do you have?"; and "Is it easy or difficult for you to make friends?". In *school affect*, it was considered eight items. It was asked the students: "Do you like being in school?"; "Is school boring?"; "Do you feel pressured or anxious about school work?" and "Do you feel safe in your school?".

We also elected to develop a peer nomination device that requires children to name peers who are the perpetrators and targets of specific forms of physical and verbal abuse.

Our *Peer Nomination Inventory*, based on Schwartz et al. (1997), contained six behavior descriptions, three of which were keyed for victimization and three of which were keyed for aggression. Each child was asked to nominate up to three peers (male or female) who fit each of the three victimization descriptors ("gets picked on", "gets teased", and "gets hit or pushed"), and each of the three aggressive behavior descriptors ("starts fights", "says mean things", and "gets mad easily"). For each child, a victimization score was calculated from the sum of the nominations received for the three victimization items, and an aggression score was calculated from the sum of the three aggression items. All scores were standardized within classroom, following the sociometric procedures of Bastin (1980). The peer victimization and aggression scores were used to classify each child into one of the following categories: Bullies (students who were above the classroom mean on the numbers of nominations received for aggressor roles); victims (students who were above the classroom mean on the numbers of nominations received for victim roles); bully-victims (students who were above the classroom mean on the numbers of nominations received for both aggressor and victim roles); and not

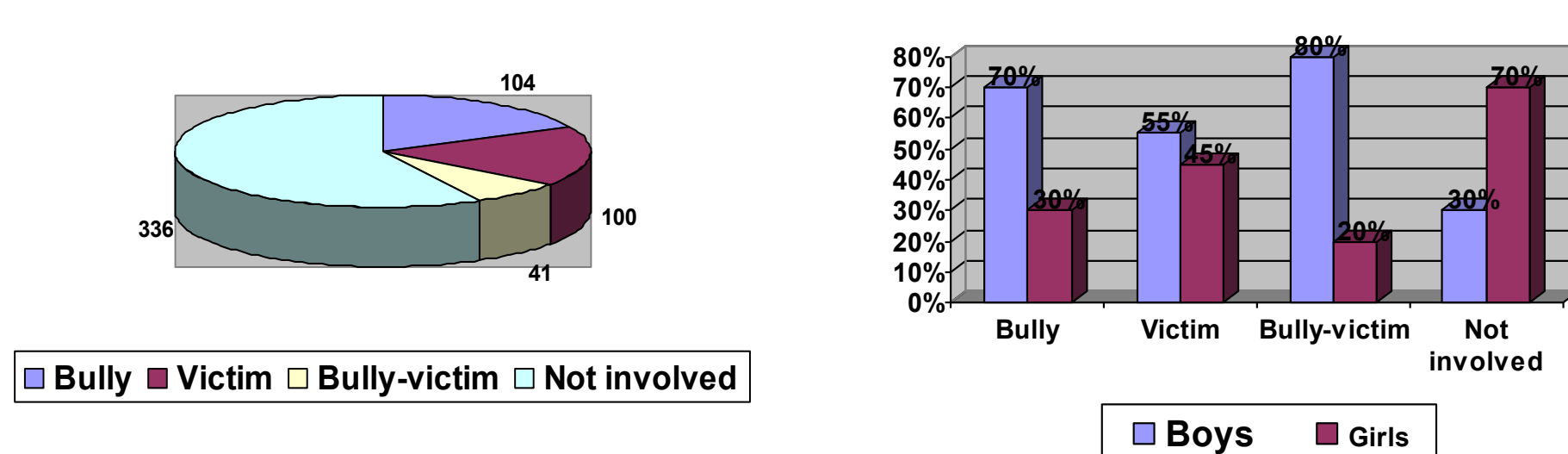
involved (students who were under the classroom mean on the numbers of nominations received for both aggressor and victim roles).

In the *Sociometric Questionnaire* students were asked to name any three members of their class (male or female) that they liked most, and then the three classmates they liked least. Students were classified as belonging to one of five sociometric status types (popular, average, neglected, rejected and controversial), according to the sociometric procedures of Bastin (1980).

The *Harrier Self-Perception Profile for Adolescents (SPPA)* is a standardized 40-item scale that measures self-esteem and self-regard of adolescents. The scale provides separate scores for each domain, and subjects responds on a 4-item agree-disagree scale. It contains a global self-esteem scale (the extent to which the youngster like themselves as a person), as well as several domain specific scales of perceived competence or ability, like scholastic competence, social acceptance, athletic competence, physical appearance (the extent to which the youngster is happy with the way he or she looks), behavioural conduct, intimacy and romantic self-perceived competence.

## RESULTS

### Prevalence of bullying



Involvement in bullying behaviour was assessed with the Peer Nomination Inventory. Of the total sample, 17,9% of the students were classified as bullies, 17,2% as victims, 7,1% as bully-victims and 57,8% as not involved.

Bullying behavior and victimization has its highest "peak" at year 7 with an age decline until the year 9. In contrast, bully-victim students show an increased tendency through the three grades.

### Academic achievement

Analyses of variance (ANOVA one-way) were conducted using the four-group classification (bullies, victims, bully-victims and not involved), and we observed significant differences between groups relating academic achievement (table n.º 1).

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	11,026(a)	3	3,675	11,314	,000
Intercept	3189,122	1	3189,122	9816,625	,000
Bullying group	11,026	3	3,675	11,314	,000
Error	187,450	577	,325		
Total	5949,632	581			
Corrected Total	198,476	580			

a. R Squared = ,056 (Adjusted R Squared = ,051)

Table n.º 1: Tests of Between-Subjects Effects (Dependent Variable: academic achievement)

The Scheffé Post Hoc Tests for multiple comparisons revealed that those differences occurred between not involved students and both bullies and victims (table n.º 2).

Not involved students manifest the highest academic achievement compared to the other groups involved in bullying behaviours, being that difference statistically significant when compared to bullies and victims.

### School affect

No statistical differences across groups were detected for liking school and feeling safe in school (table n.º 3), however comparisons between bullies, victims, bully-victims and not involved students, in relation to feeling pressured or anxious about school work and perceiving school as boring, show statistically significant differences.

	Like school	Feel pressured	School boring	Feel safe
Chi-Square	7,167	15,006	26,924	6,823
df	3	3	3	3
Asymp. Sig.	,067	,002	,000	,078

Table n.º 3: School affect (Kruskal-Wallis Test)

Bully-victims feel significantly more pressured about school work in comparison to bullies and not involved students, followed by victims who also feel pressured and anxious about school work. The bullies are the group who felt less pressured.

### Self perception

No statistically significant differences across the four groups were detected in relation to self-esteem (K-W statistic:  $\chi^2 = 1,488$ ;  $df = 3$ ;  $p = ,685$ ).

In relation to self-regard, although no statistically significant differences across the four groups were detected in scholastic competence subscale, bullies scored higher than the remaining groups. Statistically significant differences between the groups were found in relation to the remaining subscales of SPPA (social, athletic, physical, behavioural, intimacy and romantic) (table n.º 5).

	schol.	social	athletic	phys.	behavio.	intim.	roma.
Chi-Square	2,826	35,527	55,000	10,611	18,354	44,878	15,458
df	3	3	3	3	3	3	3
Asymp. Sig.	,419	,000	,000	,014	,000	,000	,001

Table n.º 5: Self-regard (Mann-Whitney Test)

Bully-victims are the second group with a better academic achievement, and victims show the lowest academic achievement comparing to other groups. It seems that involvement in bullying behaviours have a negative impact on academic achievement, being more negative in the case of victimized students.

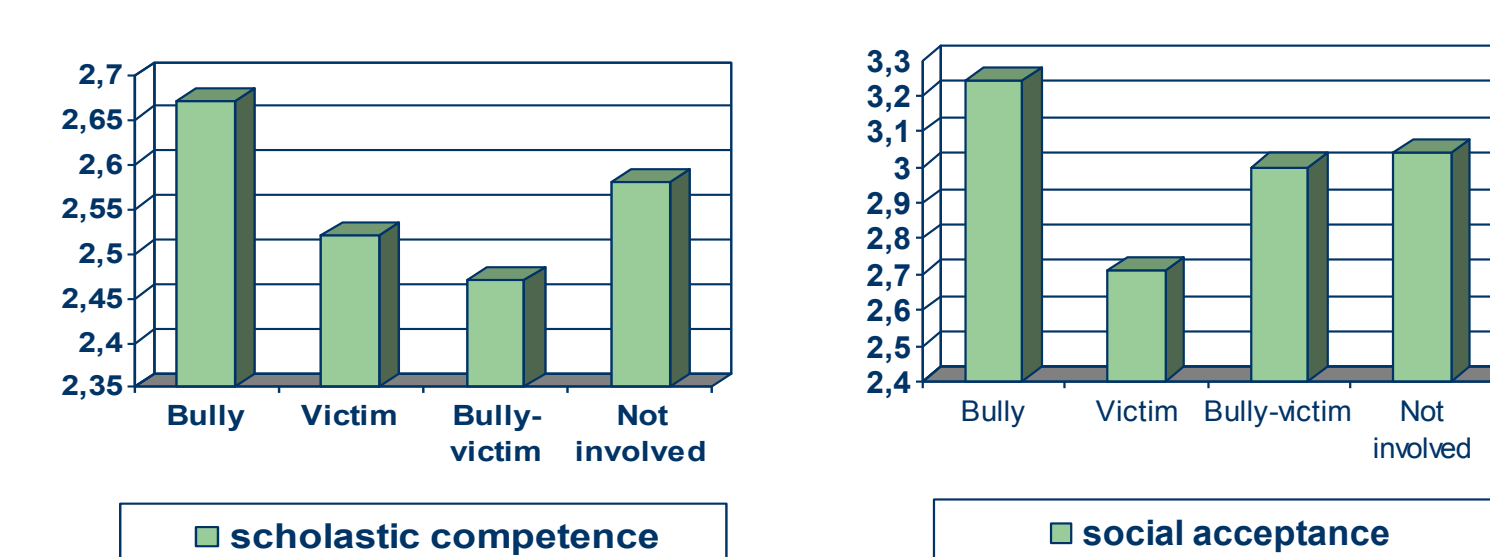
(I) group of students	(J) group of students	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval
Bully	Victim	,0255	,07983	,992	-,1983 - ,2493
	Bully-victim	-,0296	,10511	,994	-,3243 - ,2651
	Not involved	-,2724*	,06396	,000	-,4517 - ,0930
Victim	Bully	-,0255	,07983	,992	-,2493 - ,1983
	Bully-victim	-,0550	,10570	,965	-,3514 - ,2413
	Not involved	-,2978*	,06493	,000	-,4798 - ,1158
Bully-victim	Bully	,0296	,10511	,994	-,2651 - ,3243
	Victim	-,0550	,10570	,965	-,2413 - ,3514
	Not involved	-,2428	,09429	,086	-,5071 - ,0216
Not involved	Bully	,2724*	,06396	,000	,0930 - ,4517
	Victim	,2978*	,06493	,000	,1158 - ,4798
	Bully-victim	,2428	,09429	,086	-,0216 - ,5071

Based on observed means.  
 \* The mean difference is significant at the .05 level.  
 Table n.º 2: Multiple Comparisons (Dependent Variable: academic achievement)

	Bully	Victim	Bully-victim	Not involved
<b>Bully</b>				
(a)		,030	,003	,630
(b)		,000	,002	,000
<b>Victim</b>	-2,176		,234	,019
(a)	-2,176		,490	,018
(b)				
<b>Bully-victim(a)</b>	-2,990	-1,189		,002
(b)	-3,151	-,691		,369
<b>Not involved (a)</b>	-,482	-2,354	-3,156	
(b)	-3,787	-2,361	-,898	

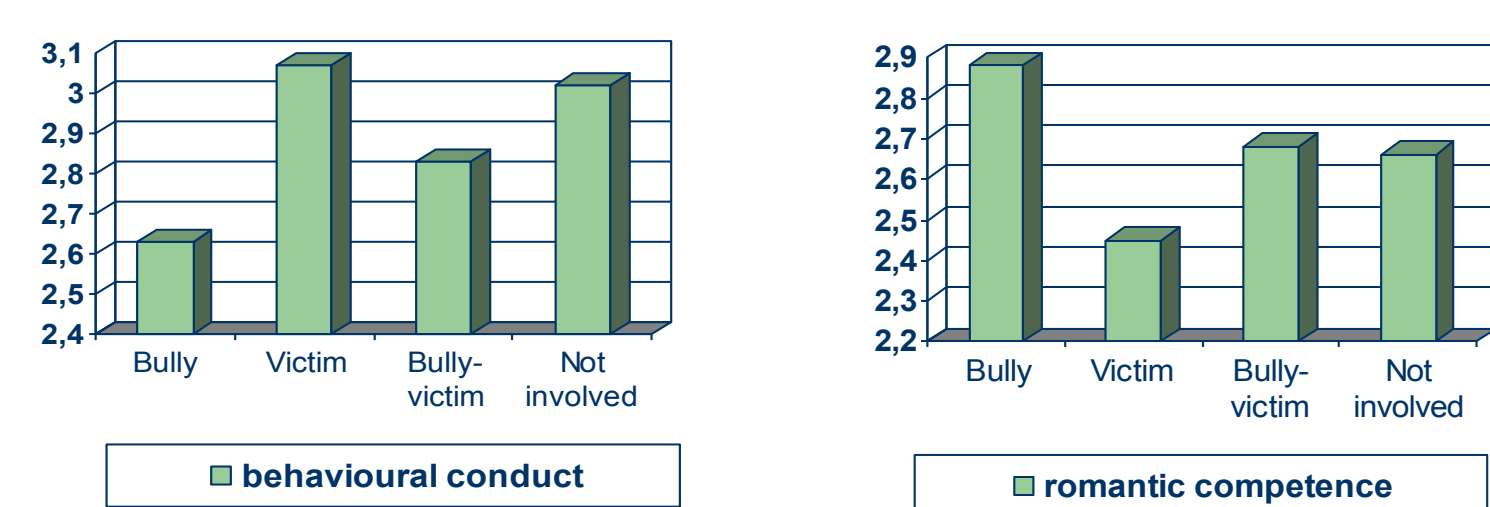
(a) Feel pressured about school work  
 (b) School is boring  
 Table n.º 4: School affect (Mann-Whitney Test)

In relation to feeling school like a boring place, bullies had the higher score, followed by not involved and bully-victims. Victims considered school as less boring compared with the remaining groups.



In social acceptance, higher levels of self-perceived competence were detected again in bully group, specially in comparison to victims (who felt less competent). Higher levels of athletic self-perceived competence were found in the bully-victim group and the lower level in the victim group. On physical appearance, victims were similar to not involved group with the lowest score, and bullies were similar to bully-victims with the highest score.

The only subscale where victims show the highest score were behavioural conduct, followed by not involved students being the lowest score observed in the bully group. In intimacy self-perceived competence, higher levels were detected in not involved students, particularly in comparison to victims, with the lower level. In romantic competence, it was observed the same pattern as in the social self-perceived acceptance, where bully-victims and not involved students scored midway between bullies (with the highest score) and victims (with the lowest score).



### Peer acceptance

The perceived peer acceptance items from the HBSC, assesses the degree to which children feel liked by peers at school. No statistically significant differences across the four groups were detected only in relation to the number of close friends (table n.º 6).

	Spend time with friends	How many close friends	Difficult make friends	Being alone in school
Chi-Square	15,121	5,982	22,521	23,444
df	3	3	3	3
Asymp. Sig.	,002	,113	,000	,000

Table n.º 6: Peer perceived acceptance (Kruskal-Wallis Test)

In relation to the difficulty in making friends, bullies feels less difficulties, followed by bully-victims, not involved and, with greater difficulties, victims. Involvement in aggressive behaviours (either as bullies or bully-victims) seems associated with a certain facility perception in making friends.

	Bully	Victim	Bully-victim	Not involved
<b>Bully</b>		,001	,061	,000
<b>Victim</b>	-3,436		,473	,431
<b>Bully-victim</b>	-1,871	-,718		,772
<b>Not involved</b>	-3,550	-,787	-,290	

Table n.º 7: Spend time with friends after school (Mann-Whitney Test)

Regarding time spent with friends after school, there are statistically significant differences between bullies and victims and not involved students, being bullies those who reported more time spent with friends while victims reported less time.

	Bully	Victim	Bully-victim	Not involved
<b>Bully</b>		,000	,681	,001
<b>Victim</b>	-4,197		,004	,046
<b>Bully-victim</b>	-,411	-2,902		,053
<b>Not involved</b>	-3,394	-1,996	-1,935	

Table n.º 8: Difficult making friends (Mann-Whitney Test)

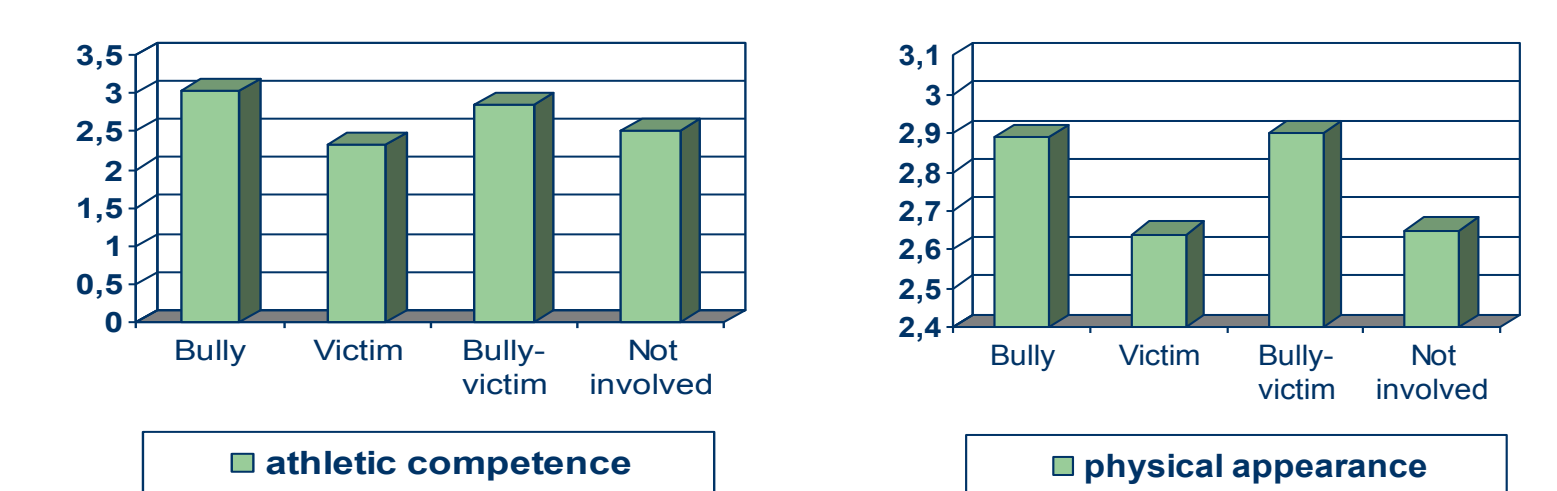
In relation to being alone in school because school-mates don't join them, victims and bully-victims are those who became alone most of the time. Not involved students, followed by bullies, reported being less alone in school, and more frequently in the company of their friends. Statistically significant differences were detected between victimized students (either victims or bully-victims) in comparison to not involved and bully groups.

	Bully	Victim	Bully-victim	Not involved
<b>Bully</b>		,020	,029	,187
<b>Victim</b>	-2,318		,771	,000
<b>Bully-victim</b>	-2,186	-,291		,001
<b>Not involved</b>	-1,318	-4,099	-3,375	

Table n.º 9: Being alone in school (Mann-Whitney Test)

Based on the sociometric questionnaire, statistically significant differences between the groups were detected in relation to sociometric status (K-W statistic:  $\chi^2 = 135,893$ ;  $df = 12$ ;  $p = ,000$ ).

- With regard to prevalence rates, results of the present research indicated that a relatively high number of pupils (42,2%) are identified as involved in bullying behaviours.
- Findings from the peer-assessments (the sociometric questionnaire) as well as from the self-report instrument (the HBSC) indicate that, as has been found in past research (Boulton & Smith, 1994; Hodges & Perry, 1999; Perry, Kusel & Perry, 1988; Salmivalli et al., 1996; Slee & Rigby, 1993) victimized students also experience significant social problems. Specifically, were significantly more disliked than other students. In addition, the peer status groups who exhibit the highest levels of victims were the rejected and neglected groups (classifications that indicate impaired peer relationships).
- In turn, aggression was not significantly related to social maladjustment, since similar peer nominations for rejected as well as popular and average groups were made. It is possible that engaging in aggressive behaviours, because their aversive nature, leads to being disliked by peers. Support for this particular relation between rejection and aggression has been established in past research (Boulton & Smith, 1994; Crick & Grotpeter, 1995; Smith, Cowie & Berdonini, 1994), however this relation was only partially established in our present study.
- In the present study not involved students have been found to be more popular than students involved in bullying behaviours.



In sum, bullies were associated with lower scores on behavioural conduct but were not associated with lower scores on the remain SPPA subscales. Conversely, victims had the lowest score on all the SPPA subscales with the exception of the behavioural conduct.

	Bully	Victim	Bully-victim	Not involved
<b>Bully</b>		,000	,034	,000
<b>Victim</b>	24,661		,421	,000
<b>Bully-victim</b>	10,383	3,887		,000
<b>Not involved</b>	35,225	103,956	72,284	

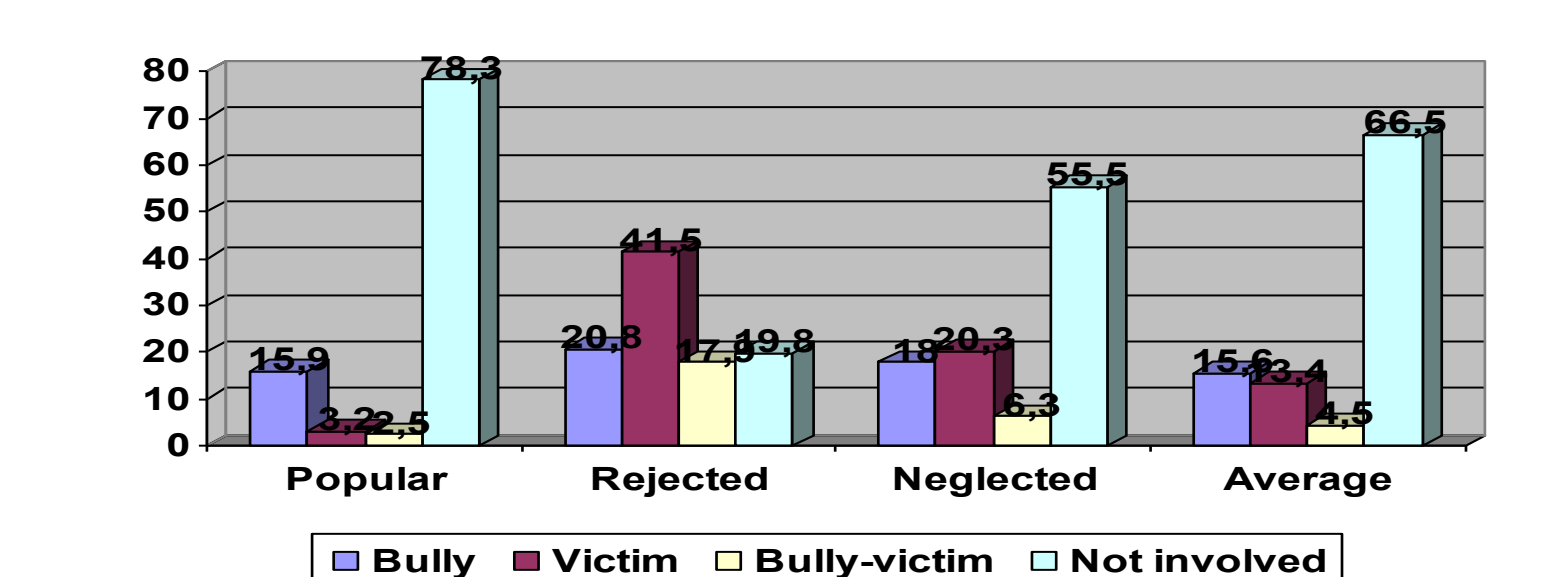
Table n.º 10: Sociometric status (Pearson Chi-Square test)

Comparing the mean percentage of the nominations received by these groups in the five sociometric status, we note that not involved students have the highest nominations in both popular and average sociometric status, and the lower nominations as rejected children. Victims and bully-victims have the lower nominations in popular and average sociometric status, and received significantly more nominations in the rejected sociometric status. Both victims and bully-victims were less likely to belong to the popular group and more likely to belong to the rejected group. The bullies have a similar proportion of nominations regarding the popular, average, rejected and neglected sociometric status. Nevertheless, their highest nominations were in the rejected group (20,8%).

	Sociometric status				
	Popular	Rejected	Neglected	Average	Controversial
Bully/victim	,0001	,0092	,7754	,6778	,1250
Bully/bully-victim	,0001	,7552	,0107	,0012	,2891
Bully/not involved	,0000	1,0000	,0000	,0000	,2891
Victim/bully-victim	1,0000	,0022	,0029	,0070	1,0000
Victim/not involved	,0000	,0059	,0000	,0000	,6250
Bully-victim/not involved	,0000	,8746	,0000	,0000	1,0000

Table n.º 11: Sociometric status

Locking at each of the sociometric status group separately, only in the controversial sociometric status were found no statistically significant differences across the groups (all the groups are underrepresented, with a total of twelve students in the controversial sociometric status). The group of popular students have a significantly greater proportion of not involved students than bullies, victims and bully-victims. Conversely, only a smaller proportion of the popular students are victims (3,2%) and bully-victims (2,5%). Sociometrically rejected students received more victim nominations than other sociometric status groups. (41,5%). The group of neglected students is composed by a similar proportion of bullies and victims (18% and 20,3%), a smaller proportion of bully-victims (6,3%) and the highest proportion of not involved students (55,5%). Finally, the average group show a similar pattern as the neglected group, with a greater percentage of not involved students, followed by the bullies, victims and bully-victims.



- If successful adaptation may be reflected in the ability to form close friendship and be accepted by the peer group, a child who is victimized and has a number of good friends, may be better able to cope, compared with another who is also victimized but who lacks supportive friends. However, in the present study, we have demonstrated that victims tended to be overrepresented in the rejected group and to be underrepresented in the popular group. Therefore, close friends would appear to be absent.
- In the SPPA, what seems to set bullies from victims apart most of all is their low level of behavioural conduct and their high level of social acceptance, romantic and athletic competence.
- The results suggest that only victimization are associated with a poorer self-evaluation. Being a victim were associated with lower scores on all the SPPA subscales, except for behavioural conduct.
- School connectedness and peer acceptance may be a leading protective factor for adolescents against multiple at-risk behaviours, including bullying.
- Intervention programmes to reduce bullying should take into account the subjective reality that those children involved in bullying have about themselves. Future studies should also address topics such as changes in personality characteristics that could minimise bullying and produce new desired behaviours and other possible intervention topics that are of special reference for both psychology and education.