Psychosocial adjustment in bullies and victims of school violence

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Within the last few decades, violent behaviours among adolescents at school have become an important concern for both educators and researchers, due probably to the negative consequences this kind of behaviour exerts on students involved (Estévez, Musitu & Herrero, 2005; Houbre, Tarquinio, Thuillier, & Hergott, 2006). The first studies on this topic were carried out in Norway by Olweus at the end of the seventies, and since then numerous investigations have been developed on what has been named bullying. According to Olweus (1978) “a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more students”, and considers as a negative action a type of violence in which someone intentionally inflicts or attempts to inflict injury or discomfort to another. Therefore, bullying has four main characteristics: (1) is a violent (2) intentional behavior, (3) which occurs over time, and (4) involves a power imbalance.

This kind of aggression is hostile and proactive and involves both direct and indirect behaviours (Elinoff, Chafouleas, & Sassu, 2004). Bullying may imply, therefore, physical attacks (hitting, pushing, kicking, shoving), verbal aggressions (threatening, teasing, name calling) and relational aggressions or behaviours that try to harm social relations of the victim (gossiping or spreading rumors, telling others to stop liking someone, ignoring or stopping talking to someone) (Craig, Henderson, & Murphy, 2000; Ladd & Ladd, 2001; Newman, Murray, & Lussier, 2001). Despite the fact that some researches have been developed to analyze the impact of these behaviours on psychosocial adjustment of aggressors and victims, there are still unresolved questions that need further investigation. For instance, it is well established that the fact of being victimized generates a great deal of distress in the child; however, findings on the psychosocial well-being of bullies are not so clear-cut.
Thus, most of the research focused on bullying at school has repeatedly shown how victimized students exhibit serious psychosomatic symptoms and poor psychological adjustment (Alsaker & Olweus, 1992; Juvonen, Nishina, & Graham, 2000; Kupersmidt, Coie, & Dodge, 1990). Recent studies have documented that depressive symptomatology and psychological distress are common in adolescents experiencing victimization (Estévez et al., 2005; Guterman, Hahm, & Cameron, 2002; Kumpulainen, Räsänen, & Puura, 2001); moreover, it seems that the association between internalizing symptoms and peer victimization is bidirectional (Hodges & Perry, 1999; Sweeting, Young, West, & Der, 2006). Likewise, victimized students normally see themselves as socially incompetent, are generally unpopular among peers and display little self-confidence (Kharti, Kupersmidt, & Patterson, 2000; Slee, 1995), as well as lower levels of self-esteem (Austin & Joseph, 1996; Estévez, Martínez, & Musitu, 2006; Olweus, 1998) and greater feelings of loneliness (Kochenderfer & Ladd, 1996; Storch & Masia-Warner, 2004).

Previous research analysing psychosocial adjustment in bullies, however, indicates that there is scarcely any correspondence between violent behaviour and psychological problems in the adolescent period (Angold & Costello, 1993). For example, depressive symptoms and violent behaviour have only been found to co-occur in about 5% to 8% of adolescents (Garnefski & Diekstra, 1997; Ge, Best, Conger, & Simons, 1996). Results regarding self-esteem in bullies are even more controversial: some authors suggest that these adolescents show lower levels of self-esteem in comparison with those not involved in such behavioural problems (Mynard & Joseph, 1997; O’Moore, 1997), while others report that violent adolescents often obtain high scores on measures of this construct (Olweus, 1998; Rigby & Slee, 1992).

According to O’Moore and Kirkman (2001), this apparent contradiction seems to be linked to two principal factors: the use of one-dimensional *versus* multidimensional scales and
the criteria to classify students. On the one hand, when using multidimensional scales, bullies tend to present lower or higher levels of self-esteem depending on the dimensions analysed. Recent studies have revealed that bullies normally get low scores in school self-esteem but high ones in the social and emotional domains (Andreou, 2000; Estévez et al., 2006; O’Moore & Kirkman, 2001). On the other hand, most of the research on bullying has focused on “pure bullies” and “pure victims”, overlooking those adolescents who are at the same time aggressors and victims. Along this line and following Austin and Joseph (1996) classification, the present study distinguishes among four different types of students depending on their role in bullying, namely victims, bullies, bully/victims, and “not involved”.

Pure victims are generally characterized as being submissive and passive, while bully/victims are, in contrast, prone to hostile behaviour (Schwartz, Proctor & Chien, 2001). However, although researchers have argued that bully/victims are a theoretically distinct subgroup of students, relatively little is known about their emotional adjustment and about whether they present a different psychosocial profile in comparison to pure victims and pure bullies. Even though this group of students seems to be smaller in number, as Schwartz and colleagues (2001) and Olweus (2001) remark, they represent an important target for empirical study. Taking this assumption into consideration, as well as contradictory findings in the available scientific literature on this topic, the main objective of the present study was to examine psychosocial adjustment in the four groups considered by Austin and Joseph (1996): victims, bullies, bully/victims and adolescents not involved in bullying at school. Psychosocial adjustment was defined here by the following indicators: level of self-esteem, depressive symptomatology, perceived stress, feeling of loneliness, and a general measure of satisfaction with life.
Method

Participants

Participants in the study were 1319 adolescents attending secondary education in seven state schools in Valencia, a metropolitan area with a population of one million in Spain. Ages ranged from 11 to 16 (mean age 13.7; s.d. 1.6); 47% were boys and 53% were girls. For the research purposes, the sample was split into four categories: bully (n = 223), victim (n = 212), bully/victim (n = 104), and not involved (n = 780; adolescents who displayed neither bullying nor victimization problems at school). The category “bully” was established on the basis of scores above the 75th percentile on the School Violence Scale; the category “victim” on the basis of scores above the 75th percentile on the Peer Victimization Scale; the category “bully/victim” was defined in terms of the combination of these scores.

Procedure

After pre-contacts were made with several state schools selected at random in the city of Valencia, seven schools finally participated in the study based primarily on their availability and the willingness of staff to collaborate in the investigation. Following initial contact with head teachers, all teaching staff were informed of the objectives of the study during a two-hour presentation. In parallel, a letter describing the study was sent to the parents requesting that they indicate in writing if they did not wish their child to participate (1% of parents exercised this option). The questionnaires were administered collectively under the supervision of a single researcher. Participants voluntarily and anonymously filled out the scales during a regular class period, lasting approximately one hour. All measures were translated using English-Spanish bidirectional translation and were administered within each classroom on the same day.

Instruments
Participants filled out the following questionnaires:

*School Violence Scale* (adapted from Little, Henrich, Jones, & Hawley, 2003). On this scale, adolescents indicated the frequency with which they had engaged in 24 aggressive acts at school over the last 12 months, on a five-point scale (0 = I don’t want to share this information, 1 = never, 4 = many times). All items were referred to aggression towards other peers in the school context. Approximately 7% of respondents chose the “0” response for some items; these were excluded from the analyses. Principal component analysis indicated a three factor structure underlying responses on this scale: the first factor (31.72% of variance) was defined by ten items referring to overt aggression (e.g., “I hit, kick, or punch others”), the second factor (22.67% of variance) was defined by seven items referring to relational aggression (e.g., “If other have hurt me, I try to keep them from being in my group of friends”), and the third factor (19.64% variance) was defined by seven items referring to instrumental aggression (e.g., “I start fights to get what I want”). Cronbach alphas for these subscales in the current sample were .82, .73, and .78 respectively. A general measure of aggressiveness at school was used in the present study.

*Peer Victimization Scale* (adapted from Mynard and Joseph, 2000). This scale consisted of 20 items, each rated on four-point scales (1 = never, 4 = many times). Principal component analysis revealed a three-factor structure: the first factor (35.74% of variance) was defined by seven items referring to physical victimization (e.g., “Some classmates have hit me”), the second factor (21.71% of variance) was defined by seven items referring to verbal victimization (e.g. “Some classmates have insulted me”), and the third factor (18.54% variance) was defined by six items referring to relational victimization (e.g., “Some classmates have spread rumours about me so that nobody associates with me”). Cronbach alphas for these subscales in the current sample
were .89, .71, and .70 respectively. A global measure of victimization was calculated and used in the current study.

*Rosenberg Self-esteem Scale* (Rosenberg, 1965, 1989). This scale is composed of 10 items answered on a four point scale (1 = I strongly agree, 4 = I strongly disagree) that provides a general measure of global self-esteem (e.g. “I feel that I’m a person of worth, at least on an equal basis with others”, “I take a positive attitude towards myself”). Internal consistency for this scale in the present study was .78.

*Satisfaction with Life Scale* (Diener, Emmons, Larsen, & Griffin, 1985). This instrument consists of 5 items rated in a seven-point scale (1 = I strongly disagree, 7 = I strongly agree) that provide a global measure of subjective well-being and life satisfaction (e.g. “I am satisfied with life”, “If I could live my life over, I would change almost nothing”). Cronbach alpha for this scale in the current sample was .81.

*Center of Epidemiological Studies Depression Scale* (Radloff, 1977). The CESD is a 20-item scale which evaluates the presence of depressive symptomatology including the following dimensions: depressed mood, positive affect, somatic and retarded activity, and interpersonal distress. It also provides a general measure of depressive mood, which was used in this study (e.g., “I felt depressed”, “I was bothered by things that usually don’t bother me”). Responses are rated on a four-point scale (1 = never, 4 = always). Cronbach’s reliability for this scale in the present study was .90.

*Perceived Stress Scale* (Cohen, Kamarck, & Mermelstein, 1983). The PSS is a 10-item scale which measures the degree to which respondents appraise situations as stressful within the last month (e.g., “In the last month, how often have you found that you could not cope with all the things that you have to do?”, “how often have you been upset because of something that
happened unexpectedly?" on a five-point scale (1 = never, 5 = very often). Coefficient alpha a in the current sample for this scale was .82.

*UCLA Loneliness Scale* (Russell, 1996). The UCLA is a 20-item scale that was developed to assess subjective feelings of loneliness and social isolation (e.g., “How often do you feel completely alone?”, “How often do you feel as if nobody really understands you?”). Items are rated on a four-point scale (1 = never, 4 = often). Alpha coefficient for this scale was .90.

**Results**

Prior to comparisons between groups, several analyses were carried out to obtain a better understanding of the distribution by gender and age of the victims and bullies in the sample. There were more bullies boys than girls ($\chi^2=44.70; \text{d.f.}=1; p<.001$), but the percentage of victimized boys and girls was not statistically different ($\chi^2=2.72; \text{d.f.}=1; p=.125$). Regarding age groups, the percentage of bullies ($\chi^2=1.77; \text{d.f.}=1; p=.183$) and victims ($\chi^2=3.22; \text{d.f.}=1; p=.071$) were equally distributed in the two age groups studied (11-13, early adolescence; and 14-16 years old, middle adolescence). For the sample as a whole, 41% of the students were involved in bullying, of whom 17% were bullies, 16% were victims and 8% were bully/victims.

Following this preliminary analyses, an analysis of variance (ANOVA) was conducted to examine differences among bullies, victims, bully/victims, and adolescents not involved, with respect to the dependent variables: level of self-esteem, satisfaction with life, depressive symptomatology, perceived stress, and feeling of loneliness. Due to the existence of sharply unequal cell sizes, the Brown and Forsythe (1974) robust estimator to account for the violation of homogeneity of variances was used for the calculation of the $F$ in the ANOVAs. When significant differences among groups were observed, the post hoc Tamhane test was applied to
differences between particular groups with respect to the dependent variables considered. This test is suitable for pairwise contrasts when unequal variances are assumed, which was the case in the present study. Table 1 shows the means, standard deviations, ANOVA results and Tamhane test for the four groups analysed.

Insert Table 1 about here

Results obtained confirmed the existence of significant differences among groups with regard to the five variables examined. Regarding global self-esteem \((F_{3,1319} = 16.81, p < .001)\) bullies and those not involved in bullying or victimization problems showed higher levels in this measure when compared to the groups of victims and bully/victims. With reference to satisfaction with life \((F_{3,1319} = 18.80, p < .001)\) adolescents not involved scored significantly higher than any other group: there were no significant differences among bullies, victims, and bully/victims, all reporting being less satisfied with their lives in general.

As far as depressive symptomatology is concerned \((F_{3,1319} = 16.76, p < .001)\), the highest scores were observed in the groups of victims and bully/victims, compared to bullies and adolescents not involved; the difference between the latter two groups was not significant. As regards perceived stress \((F_{3,1319} = 11.38, p < .001)\) the three groups of adolescents involved in bullying and victimization problems reported higher levels; those not involved perceived less stress in their daily life. Finally, the group of victims expressed, overall, the greatest feeling of loneliness \((F_{3,1319} = 22.04, p < .001)\), followed by the group of bully/victims. Bullies and adolescents not involved had similarly lower levels with respect to this variable.

To sum up, our results indicated that the group of not involved adolescents had better psychosocial adjustment: higher self-esteem and greater satisfaction with life, together with lower levels of depressive symptomatology, perceived stress and feeling of loneliness. The
scores for self-esteem, depressive symptomatology and loneliness of these adolescents were similar to those of bullies. However, bullies expressed less satisfaction with life and more perceived stress, as did the other two groups, namely victims and bully/victims. Pure victims reported the greatest feelings of loneliness.

Discussion

The present study aimed to investigate psychosocial adjustment in bullies, victims, bully/victims, and students who do not participate in violent acts at school and who are not victimized by their peers. Findings showed significant differences among these groups with regard to the five indicators considered. Firstly, our results suggested that not involved adolescents have a better general psychological adjustment; in this study they had the highest scores for global self-esteem and satisfaction with life, and the lowest scores on the negative indicators of adjustment. Considering the other three groups of students in conjunction, both groups of victims –pure and bully/victims- displayed more serious psychological adjustment problems than bullies. Although all three groups perceived a higher level of stress in their daily life than students not involved, bullies had a more positive attitude towards themselves, fewer symptoms of depression and lower scores for loneliness in comparison to both groups of victims of bullying. The findings obtained in the present research with Spanish adolescents are in line with those found in other countries documenting that bullies are normally characterised by medium or even high self-esteem (Olweus, 1998; Rigby & Slee, 1992), and that depression is not common among such adolescents (Ge et al., 1996).

Involvement in aggressive behaviours in adolescence can on many occasions be the expression of a strong desire to be socially recognize as popular, powerful and rebellious (Rodríguez, 2004). These adolescents are more likely to develop friendships with others that are
similar to them in values, attitudes and behaviours, in their search for this social recognition (Vitaro, Brengen, & Tremblay, 2000). Bullies usually have, therefore, a set of friends who admire and support them, and are even often the central figures in their peer group, thereby enjoying benefits of social inclusion with the consequent positive influence on their self-perception and emotional adjustment (Hawley & Vaugin, 2003). As our results also indicated in this sense, being a bully was not correlated with depression or feelings of loneliness; on the contrary, with respect to these variables, these adolescents did not consistently differ from students not involved. The case of both groups of victims was completely different. They reported greater feeling of loneliness, particularly the pure victims. Our findings are consistent with those obtained by Eslea et al. (2003), who found that victims, and especially pure victims, reported having fewer friends and feeling more isolated in the school context.

It is worth noting that the three groups of students involved in bullying or victimization problems expressed less satisfaction with their lives than adolescents not involved. Some recent studies have documented this association with respect to victims (Flouri & Buchanan, 2002; Sun & Tao, 2005) and bullies (MacDonald, Piquero, Valois, & Zullig, 2005). In the present research we also confirmed this pattern for bully/victims. In the case of victims and bully/victims, their low satisfaction with life is consistent with their negative self-perception, their social isolation, and the depressive symptoms that many of them develop. In the case of bullies, and taking into consideration results from the current and previous studies, the findings suggest that others factors -apart from the individual factors considered here: self-esteem, depression and loneliness- may be affecting their psychological adjustment, since they regard their lives as unsatisfactory. Other variables related to the main socialization contexts in adolescence, namely family and school, should be taken into account in future research to shed a clearer light on this issue.
Along this line and according to authors like Rigby (1994) and Bowers, Smith and Binney (1994), bullies usually inform of low parental support and lack of warmth and cohesiveness in their families. Also, in prior studies we found that bullies and bully/victims reported high levels of social and emotional self-esteem but low levels of family and school self-esteem (Estévez et al., 2006), and that bullies do not necessarily display negative emotional symptoms unless their behaviour worsens their social interactions at home and at school (Estévez et al., 2005). In this sense, it seems that quality of relationships with parents and teachers could also play a relevant role in the explanation of low levels of satisfaction with life in bullies obtained in the current study.

In conclusion, we consider that this paper contributes to our understanding of differences between groups of adolescents involved in bullying in educational settings and also enhances our knowledge about the psychosocial profile of bully/victims. This group of adolescents seems to share characteristics with both pure bullies and pure victims, though presenting more similarities with the latter and a general poor psychosocial adjustment. Delimiting these particular characteristics and differences among groups has relevant and practical implications that should be considered in the designed of policies the purpose of which is to prevent or reduce levels of violence within schools. We agree with Rigby’s (2001) recommendation of creating group-specific intervention and prevention programs. Thus, our results, as well as those recently reported by Houbre et al. (2006) and Unnever (2005) suggest that both future research and school interventions should acknowledge that there are different groups with different roles and different profiles involved in bullying.

On the one hand, effective programs should pay attention to specific characteristics found in each group. Interventions aimed at developing self-esteem and reducing feelings of loneliness
and depressive symptoms, for example, would probably be more effective when working with victims than with bullies; all, however, could profit from programs focused on improving general satisfaction with their lives. On the other hand, prevention programs should take into consideration results from longitudinal studies examining both antecedents and consequences of peer victimization. Recent studies suggest for instance a bidirectional association between victimization and some internalizing problems such as withdrawal, anxiety and depression (Hodges & Perry, 1999; Sweeting et al., 2006). These findings raise thus the possibility that psychological distress may also be a risk factor and not only a consequence of bullying, a fact that has in turn important implications for school-based prevention programs and suggests that educators and professionals should be aware that more vulnerable children are more likely to be the targets of victimization (Sweeting et al., 2006).

Finally, despite the contributions of this paper, we acknowledge as a limitation of the study that reliance on self-report data creates vulnerability to response bias, which could have an impact upon the validity and generalizability of the study findings. It should additionally be noted that the present study is somewhat limited by the correlational nature of the data and by the cross-sectional design, which means we must be cautious about making categorical conclusions on the basis of the data available. Moreover, since some of the variables included in the present study seem to possess considerable stability over time in those involved in bullying, such as depressive symptomatology (Guterman et al., 2002), evidence from longitudinal research would be desirable in order to examine in more depth relationships considered here.
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Table 1

*Means, standard deviations (in parenthesis), ANOVA results and Tamhane Test*

<table>
<thead>
<tr>
<th></th>
<th>Bullies</th>
<th>Victims</th>
<th>Bullly/Victims</th>
<th>Not involved</th>
<th>F_{3,1319}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Self-esteem</td>
<td>29.81 (4.50)</td>
<td>28.00 (5.21)</td>
<td>28.11 (5.19)</td>
<td>30.46 (4.55)</td>
<td>16.81 ***</td>
</tr>
<tr>
<td>Satisfaction with Life</td>
<td>39.20 (8.33)</td>
<td>38.73 (7.89)</td>
<td>38.41 (8.07)</td>
<td>43.13 (6.89)</td>
<td>18.80 ***</td>
</tr>
<tr>
<td>Depressive Symptoms</td>
<td>38.03 (7.87)</td>
<td>43.18 (10.60)</td>
<td>42.17 (10.15)</td>
<td>38.18 (7.05)</td>
<td>16.76 ***</td>
</tr>
<tr>
<td>Perceived Stress</td>
<td>24.02 (4.02)</td>
<td>24.06 (4.45)</td>
<td>24.18 (4.14)</td>
<td>21.33 (4.22)</td>
<td>11.38 ***</td>
</tr>
<tr>
<td>Loneliness</td>
<td>37.82 (7.96)</td>
<td>42.56 (10.39)</td>
<td>40.68 (8.18)</td>
<td>37.11 (7.93)</td>
<td>22.04 ***</td>
</tr>
</tbody>
</table>

Tamhane Test: α = 0.05; a > b > c

*** p < .001