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Running Head: Family, classroom and peer relational victimization

**THE RELATIONSHIPS OF FAMILY AND CLASSROOM ENVIRONMENTS
WITH PEER RELATIONAL VICTIMIZATION: AN ANALYSIS OF THEIR
GENDER DIFFERENCES**

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Resumen.- Este estudio analiza las relaciones entre las percepciones que los adolescentes tienen de su clima familiar y escolar y la victimización relacional entre iguales, teniendo en cuenta que estas relaciones pueden estar mediadas por la autoestima, los sentimientos de soledad y el estatus sociométrico de los adolescentes. Estas relaciones, y sus posibles diferencias de género, fueron analizadas en una muestra de 1319 adolescentes españoles (48% chicos y 52% chicas) con edades comprendidas entre los 11 y los 16 años ($M = 13.7$, $DT = 1.5$). Un mismo modelo de ecuaciones estructurales fue calculado de forma separada para chicos y chicas. Los resultados sugirieron efectos directos significativos de la autoestima, la soledad y el estatus sociométrico de los adolescentes en la victimización relacional para los chicos, y de la soledad y el estatus sociométrico para las chicas. Las percepciones de los adolescentes del clima familiar y del clima escolar tenían efectos indirectos significativos en la victimización relacional para chicos y chicas, pero las trayectorias eran diferentes. En general, los resultados sugirieron que para los chicos un clima escolar negativo tenía un efecto más relevante en la victimización relacional.

Palabras clave: clima familiar, clima escolar, victimización relacional entre iguales, diferencias de género.

Abstract. - This study analyzes the relationships of adolescents' perceptions of their family and classroom environments with peer relational victimization, taking into account that these relationships could be mediated by adolescents' self-esteem, feelings of loneliness, and sociometric status. These relationships, and their possible gender differences, were analyzed in a sample of 1319 Spanish adolescents (48% boys and 52% girls), ages 11 to 16 years ($M = 13.7$, $SD = 1.5$). A structural equation modeling was calculated for boys and girls separately. The findings suggested that the adolescents' self-esteem, loneliness, and sociometric status had a significant direct effect on peer relational victimization for boys, and adolescents' loneliness and sociometric status for girls. Their perceptions of family and classroom environments had a significant indirect effect on peer relational victimization for boys and girls, but the paths were different. Overall, findings suggested that a negative classroom environment had a more relevant effect in relational victimization for boys.

Key words: family environment, classroom environment, peer relational victimization, gender differences.

The relationships of family and classroom environments with peer relational
victimization: an analysis of their gender differences

In last few decades, increasing research has been done on bullying and victimization and surveys have been conducted in many countries around the world, all showing that a significant number of children and adolescents are victimized by their peers (Del Rey & Ortega, 2008; Eslea, Menesini, Morita, O'Moore, Mora-Merchan, Pereira, & Smith, 2004).

Peer victimization has been defined as, "The experience among children of being a target of the aggressive behavior of other children, who are not siblings and not necessarily age-mates" (Hawker & Boulton, 2000, p.441) and has been associated with depression, anxiety, low self-esteem, loneliness, common health symptoms, and school absenteeism (Boivin, Hymel, & Bukowski, 1995; Hodges, Malone, & Perry, 1997; Egan & Perry, 1998; Hodges & Perry, 1999; Schwartz, Gorman, Nakamoto, & Tobin, 2005). The recognition of the serious negative consequences that peer victimization may have for victims' well-being has prompted researchers to investigate the factors that could increase the probability of being maltreated by peers. In these studies, it has been suggested that some social adjustment difficulties could increase the probability of victimization (e.g., Fox & Boulton, 2006). Garandeau and Cillessen (2006) have described the victimization like a social process and have highlighted the tendency of bullies to choose easy targets. So, children and adolescents with low self-esteem, low sociometric status and high feelings of loneliness could have more probability of being victimized by their peers. These characteristics, frequently associated to children and adolescents victimized by peers (Crick & Bigbee, 1998; Egan & Perry, 1998; Ladd & Tropp-Gordon, 2003; Salmivalli & Isaacs, 2005), could be consequence of the

victimization but could also be previous factors that increase the probability of being victimized (Cava, Musitu, & Murgui, 2007; Fox & Boulton, 2006).

Previous studies have analyzed this possibility and have shown that bullies were especially interested in those children and adolescents with less personal and social resources. Egan and Perry (1998) suggested that children with low self-regard were at risk of increased victimization because it was less probable that they defend themselves and they were more prone to blame their victimization on their own personality. Also, low self-esteem could be related to some social behaviors, such as submissive-withdrawn behaviors, that have been related to persistent victimization (Boulton, 1999). In the case of the sociometric status, frequently measured by the social preference in peer group (Coie, Dodge, & Coppotelli, 1982), all previous research has found that children victimized by peers have high rejection scores and low popularity scores (Crick & Bigbee, 1998; Pellegrini, Bartini, & Brooks, 1999). Although some children's previous adaptative difficulties could explain both low sociometric status and peer victimization, to be rejected by peers might increase the probability of victimization because a rejected child is more unlikely to receive help from other peers. Other children and adolescents' characteristics detected by bullies could be related to feelings of loneliness, a variable previously also associated with peer victimization (Ladd & Tropp-Gordon, 2003).

Nevertheless, few studies have considered the analysis of the possible direct and indirect effects of the adolescents' perceptions of their two main contexts of development, family and classroom, in the peer victimization. The importance of perceived social context for explaining an individual behavior, previously highlighted by Lewin (1936) and Bronfenbrenner (1977), is now accepted, but few studies have analyzed jointly these two contexts in relation to peer victimization. Although there is

extensive literature about the influence of family in the development of individual and social resources in children and adolescents (Dairling & Steinberg, 1993; Maccoby & Martin, 1983; Musitu & Garcia, 2004), the effects of family environment in variables directly associated with peer victimization has not been considered in many studies. Research about family socialization has shown that affective and relational dimensions of the family environment are related to adolescents' adjustment (Demaray & Malecki, 2002; Estevez, Emler, & Musitu, 2007). A negative family environment might be related to peer victimization through its influence on the adolescents' negative adjustment at school (Marturano, Ferreira, & Bacarji, 2005), their feelings of loneliness (Larose & Boivin, 1998), and their low self-esteem (Musitu & Garcia, 2004). In contrast, a positive family environment, with a secure attachment to parents and supportive relationships, could help children and adolescents to develop a sense of security in themselves and also encourage them to explore new social contexts (Larose & Boivin, 1998).

Regarding adolescents' perceptions of classroom environment, some previous studies have shown the influence of these perceptions in students' adjustment at school (Barth, Dunlap, Dane, Lochman, & Wells, 2004; Meece, Anderman, & Anderman, 2006), but their possible effects in peer victimization have hardly been considered. In this context, the adolescent's perception of his or her classroom like a place in which there are positive relations between students and in which he or she has a supportive relation with teachers might reduce the probability of being victimized. These relationships could be mediated through the influence of these perceptions on adolescents' feelings of loneliness, sociometric status, and self-esteem. So, a main objective of this study was to add previous research about peer victimization analyzing

the direct and indirect effects of adolescents' perceptions of their family and classroom environments in peer victimization. Also, it is probably necessary to know the relevance of these factors in relation to the different forms of victimization, taking into account that research on this topic has differentiated between those relationally peer-victimized and those overtly peer-victimized (Archer & Coyne, 2005; Crick & Grotpeter, 1996; Mynard & Joseph, 2000). Peer overt victimization occurs when children or adolescents are physically attacked or called names, and peer relational victimization occurs when children and adolescents are socially ostracized or have rumors spread about them (Dempsey, Fireman, & Wang, 2006).

In a previous study, Cava, Musitu and Murgui (2007) analyzed jointly the effect of adolescents' perceptions of family and classroom environments in overt victimization and found that these variables were related to overt victimization through the adolescents' self-esteem, loneliness, and sociometric status. Adolescents with a more negative perception of their family and classroom environments reported lower self-esteem and higher feelings of loneliness and showed a lower sociometric status in classroom. Probably, a negative perception of these environments decreases the personal and social resources of the adolescents, and increases their vulnerability to be overtly victimized by peers. Nevertheless, the relevance of these variables in relational victimization has not been analyzed. So, the main objective of the present study was to analyze the role of self-esteem, loneliness, sociometric status, and classroom and family environments in relational victimization by peers, in a similar way to what has been previously analyzed in overt victimization (Cava, Musitu, & Murgui, 2007). It was hypothesized that adolescents with low self-esteem, low sociometric status, and high feelings of loneliness would report more relational victimization and their perceptions

of family and classroom environments would have significant direct and indirect effects on relational victimization through self-esteem, loneliness, and sociometric status.

A second objective of the present study was to analyze these relationships taking into account possible gender differences in the effects of these variables in peer relational victimization. Certainly, the distinction between relational and overt victimization has been related with some gender differences (Crick & Grotpeter, 1995). Overt victimization has been related to boys and relational victimization to girls. Nevertheless, in the case of relational victimization not all the studies have found that this is really used more by girls. Some studies have reported that relational aggression is used more often by girls than by boys (Archer & Cote, 2005; Crick & Grotpeter, 1995) and girls seems to be more relationally victimized by peers than boys (Crick & Bigbee, 1998; Putallaz, Grimes, Foster, Kupersmidt, Coie, & Dearing, 2007). But, other studies have not found gender differences in social aggression (Underwood, 2003), neither in vulnerability to be relationally victimized by peers (Crick, Casas, & Nelson, 2002; Martin & Huebner, 2007). More knowledge about the differences in the use of relational victimization in boys and girls, and also about their possible different factors of vulnerability, seems necessary.

Although gender differences in the effects of self-esteem, loneliness, sociometric status, and family and classroom environments on peer overt victimization have not been detected (Cava, Musitu, & Murgui, 2007), some differences might be possible in peer relational victimization. The association between relational victimization and feelings of loneliness seems be stronger for girls than boys and has been suggested that the manipulation of interpersonal relationships may be particularly harmful to girls (Prinstein, Boergers, & Vernberg, 2001). Prinstein et al. (2001) showed that relational

victimization was substantial in relation to girls' internalizing outcomes, such as depression, loneliness, and self-esteem. These characteristics could be a consequence of victimization, but they could also be previous characteristics detected and valued by bullies (Crick & Bigbee, 1998; Prinstein et al., 2001).

Taking into account these findings and also other studies showing that during adolescence girls have lower self-esteem, higher sociometric status in classroom, and are stronger influenced by their family environment than boys (Blum, Ireland, & Blum, 2003; Cava & Musitu, 1999; Estevez, Murgui, Musitu, & Moreno, 2008), possible gender differences are considered in the present study. Specifically, the possible different influence of self-esteem, loneliness, sociometric status, and adolescents' perceptions of classroom and family environments was analyzed separately in boys and girls, using a similar equation modeling. Some differences in the direct effects of the self-esteem, loneliness, and sociometric status between boys and girls were hypothesized. Also, it was hypothesized that family and classroom environments would have significant direct and indirect effects on relational victimization, but the effect of family environment would be stronger in girls.

Method

Participants

Participants in the study were 1319 Spanish adolescents attending secondary education and also a small percentage of students in the last grade of primary education (sixth grade). Age ranged from 11 to 16 years old ($M=13.7$, $SD=1.5$), and gender was distributed approximately equally in the sample: 48% were boys and 52% were girls. The percentages of students in the sixth grade of primary education, and in first, second,

third and fourth of secondary education were 9.4%, 25.7%, 22.3%, 22.5%, and 20.1%, respectively.

Measures

Self-esteem was measured by the Rosenberg Self-esteem Scale (Rosenberg, 1965), using the Spanish-language version of Echeburua (1995). Previous studies have shown a good internal consistency index (Cronbach's $\alpha = .88$) of this Spanish-language version (Baños & Guillen, 2000). This scale is a widely used self-esteem measure and it is composed of 10 items dealing with a person's sense of worthiness and personal value (e.g. "I feel that I have a number of good qualities"). These items are answered on a four-point scale, ranging from 1=strongly disagree to 4=strongly agree. Cronbach's alpha was .78 in the present sample.

Loneliness was measured by version 3 of the UCLA Loneliness Scale (Russell, 1996; Spanish-language version of Exposito & Moya, 1999). This 20-item self-report scale measures feelings of loneliness experienced in interpersonal relationships (e.g. "I am unhappy being so withdrawn"). The scale has excellent psychometric qualities, including high test-retest reliability ($r=.85$; Hartshorne, 1993), good internal consistency (Cronbach's $\alpha = .94$; Johnson, LaVoie, Spenceri, & Mahoney-Wernli, 2001), and good convergent, concurrent, and discriminant validity, and is commonly related to measures of social support and personal adjustment (Pierce, Sarason, & Sarason, 1991). The response format is from 1=never to 4=often. In this study, Cronbach's alpha for this scale was .90.

Sociometric Status was assessed using the peer nomination method (Jiang & Cillesen, 2005). Participants were asked to nominate three classmates they liked most and three classmates they liked least. Following Coie, Dodge, and Coppotelli's

procedure (1982), an index of social preference was formed by subtracting the rejection score (number of times a student was negatively nominated by all other peers in his or her classroom) from the acceptance score (number of times a student was positively nominated by all other peers in his or her classroom), and standardizing the resulting score. This index of social preference was used as a measure of the adolescent's sociometric status in his or her classroom. In the sociometric literature, stability is usually found to be lower for younger children than for older children. Other reliability criteria, such as the widely used internal consistency index (Cronbach's α), are rarely used due to theoretical difficulties when conceptualizing sociometric measurement within a classical psychometric framework (see, Terry, 2000).

Family Cohesion and Expressiveness were measured by two subscales of Family Environment Scale (FES; Moos & Moos, 1981; Spanish-language version of Fernández-Ballesteros & Sierra, 1989). The FES has 10 subscales with nine true-false items each one of them. In this study we were interested in the relationship between adolescents and their parents, and we considered only two subscales: Family Cohesión, which is conceptualized as degree of commitment and support family members provide for one another (e.g. "Family members really help and support one another"), and Family Expressiveness, which is conceptualized as the extension in which family members are encouraged to express their feelings directly (e.g. "Family members often keep their feelings to themselves"). In this study, the internal consistencies (Cronbach's α) of the Cohesion and Expressiveness subscales were 0.85 and 0.80, respectively.

Classroom Involvement and Affiliation were measured by two subscales of the Classroom Environment Scale (CES; Moos & Trickett, 1973; Spanish-language version of Fernández-Ballesteros & Sierra, 1989). The CES can be used both to evaluate the

classroom itself, as well as to indicate how a student views the classroom and his or her place in it. It is a true-false measure, whose items are grouped into 9 subscales with ten items each one of them. In this study we were interested in the relationship between classmates and so we considered only two subscales: Involvement, which is conceptualized as the degree of students' attentiveness, interest and participation in class activities (e.g. "Students put a lot of energy into what they do here"), and Affiliation, which is conceptualized as the concern and friendship students feel for one another (e. g. "Students in this class get to know each other really well"). In this study, the internal consistencies (Cronbach's α) of the Involvement and Affiliation subscales were 0.84 and 0.79, respectively.

Peer Relational Victimization was measured by a subscale of the Self-reported Victimization Questionnaire (Cava, Musitu, & Murgui, 2007). This questionnaire is mainly based on the Multidimensional Peer-Victimization Scale of Mynard and Joseph (2000) and the Social Experience Questionnaire Self-report (Crick & Grotpeter, 1996). In this scale, adolescents indicate how often during the last school year they have experienced 20 victimizing experiences described in 20 items. The response format is from 1=never to 4=often. This questionnaire includes 10 items of Peer Overt Victimization and 10 items of Peer Relational Victimization. In a previous study focused on Overt Victimization (Cava, Musitu, & Murgui, 2007), a principal component analysis with oblimin rotation was conducted on all 20 items. This analysis yielded a three-factor structure: Relational Victimization (that explained 49.26% of the variance and grouped 10 items), Overt Physical Victimization (that explained 7.05% of variance), and Overt Verbal Victimization (that explained 5.87% of the variance). This obtained three-factor solution explained 62.18 % of the variance. Factor loadings

ranged from .56 to .81 (see Cava, Musitu, & Murgui, 2007, for a complete description of factor loadings). The internal consistencies (Cronbach's α) of these three subscales were 0.92, 0.71, and 0.89 for Relational Victimization, Physical Overt Victimization, and Verbal Overt Victimization, respectively.

Procedure

Initially ten schools from rural and urban areas of Alicante, Valencia and Castellón were selected to participate in this study. The school staffs were informed about the objectives of the study during an approximately two-hour presentation. A letter describing the study, and applying for their consent, was sent to the parents. Participants were told that the purpose of the study was to get a better knowledge of their lives in the school and their relationships with their parents. We stressed the importance of the sincerity of their answers and the possibility of refusing to take part in the study. Students filled out the scales during two 60-min sessions conducted within their classrooms, with an interval of three days between the two sessions. During the first session, students completed Self-esteem Scale, Loneliness Scale, Classroom Environment Scale, and two other measures that are not part of this study. During the second session, students completed Family Environment Scale, Peer Victimization Scale, Sociometric Questionnaire, and three other measures that are not part of this study. All measures were administered in the presence of a trained psychologist.

Data analysis

Student's *t* for independent samples was used to determine whether there was statistically significant gender differences in variables considered in this study. Subsequently, a similar structural equation modeling was applied for boys and girls separately using the maximum likelihood method of the EQS Version 6.1 (Bentler,

1995). The data were analyzed using the robust version of the following fit indexes: the chi-square statistic divided by its degrees of freedom, the robust comparative fit index (robust CFI), the Bentler-Bonett Nonnormed fit index (NNFI), the Bollen fit index (IFI), and the root mean square error of approximation (RMSEA). A model fit the observed data well when the ratio between the chi-square statistic and the degrees of freedom is less than 3, the fit indexes are .90 or more, and the RMSEA is less than .05 (Bentler, 1990; Hu & Bentler, 1999).

Results

Table 1 shows the correlations, effect sizes, means, and standard deviations for structural model variables by gender. These results indicated that almost all the variables concerning the adolescents' perceptions of their Family Environment and Classroom Environment were significantly associated with adolescents' Self-esteem, Loneliness, and Sociometric Status for boys and girls. Adolescents reporting more positive Family Environment and Classroom Environment were likely to report higher Self-Esteem, lower Loneliness, and higher Sociometric Status. Self-Esteem was positively correlated with Sociometric Status and negatively with Loneliness, and Sociometric Status was negatively correlated with Loneliness. All variables correlated in expected directions with Relational Victimization in boys and girls.

Insert Table 1 about here

Regarding the means of these variables, some statistically significant gender differences can also be observed in Table 1. Specifically, girls' means were significantly higher than boys' in Sociometric Status and Family Expressiveness, whereas the boys' means were significantly higher than girls' in Self-Esteem. No statistically significant differences between boys and girls in Relational Victimization,

Loneliness, Family Cohesion, Classroom Involvement, and Classroom Affiliation were revealed.

The hypothesized model (see Figure 1) was tested for boys and girls separately. For both genders, the hypothesized model showed a good fit: $\chi^2 (15, N = 655) = 25.42$ ($p < .001$), $\chi^2/d.f.=1.69$; GFI=.98, AGFI=.96, IFI=.98, and RMSEA=.04 for girls, and $\chi^2 (13, N = 620) = 22.45$ ($p < .001$), $\chi^2/d.f.=1.72$; GFI=.99, AGFI=.96, IFI=.98, and RMSEA=.04 for boys. This model accounted for 19% of the variance in Relational Victimization for boys and 13% for girls.

Insert Figure 1 about here

Figure 1 shows standardized path coefficients and their confidence intervals. Results indicated a significant direct effect of Classroom Environment ($\beta = -.20$, $p < .05$) on Peer Relational Victimization only for boys. Classroom Environment showed also significant indirect effects on Peer Relational Victimization through Loneliness and Sociometric Status for both genders: more negative perceptions of Classroom Environments were related to more feelings of Loneliness (boys: $\beta = -.28$, $p < .01$; girls: $\beta = -.16$, $p < .05$), and lower Sociometric Status (boys: $\beta = .25$, $p < .01$; girls: $\beta = .16$, $p < .05$), variables which were in turn directly related to Peer Relational Victimization for both genders. Loneliness was directly associated with Peer Relational Victimization. (boys: $\beta = .22$, $p < .001$; girls: $\beta = .31$, $p < .001$) and Sociometric Status also was (boys: $\beta = -.10$, $p < .05$; girls: $\beta = -.11$, $p < .05$).

In the case of Family Environment only indirect effects were significant. These indirect effects on Peer Relational Victimization were significant in both genders, although paths were different. So, for girls results showed only a significant indirect effect of Family Environment on Peer Relational Victimization through their feelings of

Loneliness ($\beta = -.49, p < .001$; $\beta = .31, p < .001$). Nevertheless, for boys Family Environment showed an indirect significant effect on Peer Relational Victimization through Loneliness ($\beta = -.24, p < .05$; $\beta = .22, p < .001$), and also through Self-esteem ($\beta = .52, p < .001$; $\beta = -.13, p < .01$). Boys with a more positive perception of their Family Environment reported more positive Self-esteem and less feelings of Loneliness, variables directly associated with less probability to be relationally victimized by peers.

Discussion

The first aim of this study was to analyze the role of self-esteem, loneliness, sociometric status, and family and classroom environments in relational victimization by peers. More specifically, this study analyzed the possible direct and indirect effects of adolescents' perceptions of their family and classroom environments in peer relational victimization, and also the possible direct effects of adolescents' self-esteem, loneliness and sociometric status. Adolescents' perceptions of their family and classroom environments have been associated to overt victimization by peers through their effects in adolescents' self-esteem, loneliness, and sociometric status, variables directly associated with overt victimization (Cava, Musitu, & Murgui, 2007). The results of the present study also confirm the relevance of these variables for relational victimization, showing similar relationships between them. Positive adolescents' perceptions of their family and classroom environments were negatively associated with relational victimization. These relations are mainly in an indirect way through the effects of these environments on adolescents' self-esteem, loneliness, and sociometric status. These findings, in general, highlight the importance of these two contexts of adolescents' development in the analysis of peer relational victimization and are consistent with other previous studies about the influence of these contexts in

adolescents' adjustment (Estevez et al., 2007, 2008; Marturano, Ferreira, & Bacarji, 2005). Nevertheless, an interesting finding of the present study was the existence of gender differences in the relationships between some of these variables and the relational victimization.

Certainly, another important objective of this work was to analyze possible gender differences in the effects of self-esteem, loneliness, sociometric status, and family and classroom environments in peer relational victimization. Previous to that, possible gender differences in the incidence of peer relational victimization were also analyzed. The results of this study showed no statistically significant differences for boys and girls in the incidence of relational victimization. Although it has been suggested that relational victimization is used more by girls, the evidence is not clear (Crick, Casas, & Nelson, 2002; Underwood, 2003). Research on this issue has shown that boys were more overtly victimized, but not all the studies have shown that girls were more relationally victimized (Putallaz et al., 2007). The results of the present study were consistent with those reporting no gender differences in the use of relational aggression by boys and girls (Card, Stucky, Sawalani, & Little, 2008).

The possible gender differences were analyzed using a similar structural equation modeling for boys and girls. The SEM analysis indicated that self-esteem, loneliness, sociometric status, and classroom environment were directly associated with relational victimization in boys, but only loneliness and sociometric status were directly associated in girls. These different relationships could indicate some differences between boys and girls in those variables associated with relational victimization, and probably more valued by bullies, while other variables could be relevant for both genders.

Loneliness and sociometric status seem to be important variables associated with relational victimization by peers for both genders. These relationships, consistent with previous studies (Prinstein et al., 2001), have been explained in different ways. So, Storch and Masia-Warner (2004) have suggested that repeated victimization may result in cognitive rumination about negative interactions and avoidance of some situations of interaction with peers, that is, loneliness and isolation could be a consequence of being victimized. But it could also be possible that some previous social difficulties increase the vulnerability for being a target of aggressors. So, boys and girls with low sociometric status might be easy targets. In a situation of relational victimization (e.g. with some classmates spreading rumors about them), it could be more unlikely that boys and girls with low sociometric status get support from peers. Along this line of research, Garandeau and Cillessen (2006) have highlighted that aggressors might be interested in targeting only one or a few people, trying that aggression seems justified to most witnesses and making victim appears as responsible for the victimization. The importance of the witnesses and their behavior towards victims, like defenders or like outsiders, is being considered more and more in research on bullying (Gini, Albiero, Benell, & Altoè, 2008).

Low self-esteem has also been suggested as a vulnerability factor of overt victimization for boys and girls (Cava, Musitu, & Murgui, 2007; Salmivalli & Isaacs, 2005). In this study, however, results showed only a significant direct effect of self-esteem in relational victimization for boys, but not for girls. Boys with less self-esteem reported more relational victimization by peers, but there were no significant differences in self-esteem for girls. An explanation of these results could be related to the lower self-esteem in girls during puberty (Ge, Conger, & Elder, 1996; Pastor,

Balaguer, & García-Merita, 2003). Low self-esteem could be more common in girls and this was not an indicator of vulnerability to relational victimization. However, in boys a negative self-perception could be a characteristic detected and valued by bullies. More research on this question, using longitudinal designs and taking into account the different dimensions of self-esteem, is necessary.

With regards to the role of adolescents' perceptions of family and classroom environments, the findings of this study confirmed the important role of these perceptions in peer relational victimization. So, adolescents with a more negative perception of their classroom environment reported higher feelings of loneliness and lower sociometric status in their peer group. Although a negative perception of classroom environment could be the result of previous negative experiences with peers in the classroom, it may also be related to attributional bias. Dodge and Feldman (1990) suggested that differences in social cognition could be a previous characteristic of rejected children in their peer group. Their negative perceptions of classroom environment, as a place in which there is no affiliation and support between classmates, might increase their feelings of loneliness and decrease their sociometric status in peer group.

The direct effects of adolescents' perceptions of their classroom environment on relational victimization for boys, but not for girls, was an interesting finding. These results showed a more important effect of classroom environment in relational victimization for boys. Estevez et al (2008) also found a stronger association between the perception of classroom environment and behavioral problems in boys than girls, and suggested that a negative perception of classroom environment could be a risk factor in behavioral problems especially for boys. The results of the present study

confirmed these relationships. One explanation could be related to gender differences in relationships with teachers and classmates between boys and girls. Teachers have a better perception of girls than boys in issues as achievement, peer relations and scholar behavior (Cava & Musitu, 1999), and girls have more intimate relationships and a lower probability of being rejected by classmates (Coie, Dodge, & Copotelli, 1982). It could be possible that perception of classroom environment was a variable that differentiates between boys with less or more risk of behavioral problems and victimization at school. These questions may have implications for intervention and should be analyzed in future studies.

Regarding family environment, the results of the present study showed an indirect effect of family environment in relational victimization through self-esteem and loneliness for boys and through loneliness for girls. Although family environment was not a more significant variable for girls than boys, as it was hypothesized, these results confirm the important influence of family relationships in adolescents' development. The relevance of family environment in relation to adolescents' adjustment has been highlighted previously (Estevez et al., 2008; Johnson, LaVoie, & Mahoney, 2001; Lucia & Breslau, 2006), and these results confirm it. Therefore, adolescents with a more positive perception of their family environment showed higher self-esteem and lower feelings of loneliness. Adolescents with more parental support and better communication with them may develop more personal resources which could reduce the probability of being relationally victimized by peers.

In summary, this study shows direct and indirect effects of the adolescents' perceptions of their classroom and family environments and suggests some gender differences in these effects. The results of this study confirm the association of low

self-esteem, high feelings of loneliness, and low sociometric status with relational victimization, and suggest that these variables could be understood like individual and social factors of vulnerability. The gender differences findings show that whereas high feelings of loneliness and low sociometric status might be factors of vulnerability in relational victimization for both genders, low self-esteem and negative perceptions of classroom environment might be factors of vulnerability only for boys. Because adolescents' perceptions of classroom environment were directly and indirectly associated with relational victimization for boys, these findings suggest that this environment could be especially relevant for boys.

Finally, several limitations of this study are acknowledged. Although data in the present study were collected from different sources (adolescents and their classmates), most of the measures used are self-report. It would be desirable, therefore, in future research to obtain additional data from parents and teachers as well. It would be especially interesting to compare adolescents' perceptions of their classroom and family environments with the perceptions of their teachers and parents. Although adolescents' perceptions of family environment have shown a better relationship with adolescents' adjustment than parents' perceptions (Musitu et al., 2001), comparing them could help us to better understand the relations between parents and adolescents. The measure of the teachers' perceptions of classroom environment could be useful in a similar way, that is, it could increase our knowledge of the relations between teachers and adolescents and could be especially interesting for designing future intervention programs. The perception of students, parents, and teachers of peer relational victimization could be also different, taking into account that they have different perceptions of school violence (Gázquez, Cangas, Pérez, &

Lucas, 2008). So, future studies could include multiple reporters of peer victimization. Although previous studies have shown the usefulness of self-reported measures in peer victimization (Crick & Bigbee, 1998), it could be interesting to consider different reporters.

Another limitation of this study is the cross-sectional design used that force us to maintain caution about making causal inferences from the results. Due to the correlational nature of this study, causality cannot be established. Therefore, it is necessary in future studies to obtain longitudinal data to clarify the direction of effects between social-psychological adjustment and peer relational victimization and, in particular, to examine possible reciprocal associations. Future research should pay more attention to the role of family and classroom environments in relational victimization by peers.

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Table 1

Bivariate correlations with Bonferroni correction, means, standard deviations and effect sizes (in parenthesis) for structural model variables by gender (boys on the right of the diagonal)

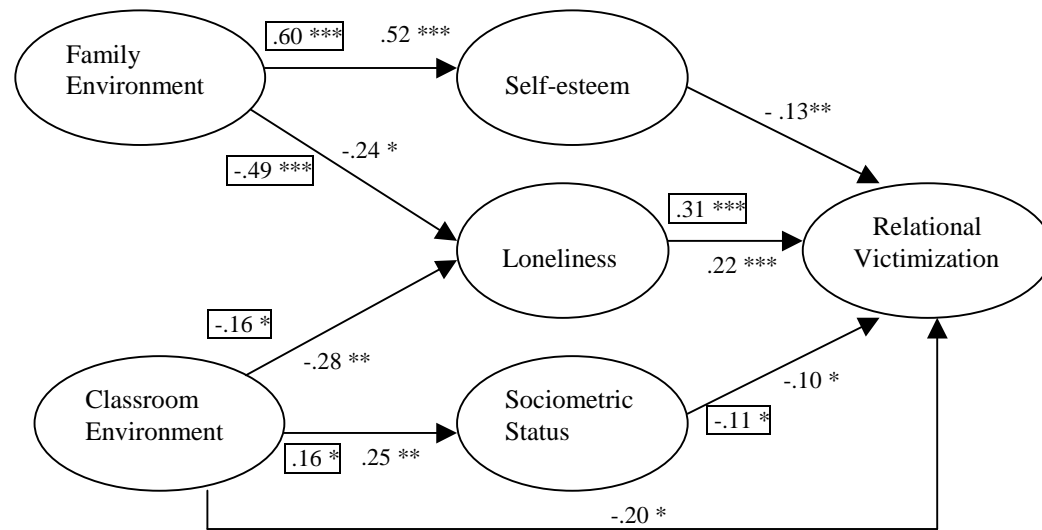
Variable	1	2	3	4	5	6	7	8
1. Self-esteem		-.46 **(.27)	.21 ** (.05)	.27 ** (.08)	.24 ** (.06)	.09 (.01)	.16 ** (.03)	-.29 **(.09)
2. Loneliness	-.51 **(.35)		-.22 **(.05)	-.18 **(.03)	-.16 **(.03)	-.13 * (.02)	-.20 **(.04)	.38 **(.17)
3. Sociometric Status	.10 (.01)	-.18 **(.03)		.08 (.00)	.04 (.00)	.02 (.00)	.18 ** (.03)	-.20 **(.04)
4. Cohesion –FES-	.31 ** (.11)	-.25 ** (.07)	.08 (.00)		.40 ** (.19)	.11 (.01)	.34 ** (.13)	-.19 **(.04)
5. Expressiveness -FES-	.28 ** (.09)	-.24 **(.06)	.05 (.00)	.51 ** (.35)		.05 (.00)	.21 ** (.05)	-.07 (.00)
6. Involvement -CES-	.06 (.00)	-.18 **(.03)	.01 (.00)	.08 (.00)	.04 (.00)		.33 ** (.12)	-.12 (.01)
7. Affiliation -CES-	.19 ** (.04)	-.30 **(.10)	.18 ** (.03)	.31 ** (.11)	.22 ** (.05)	.37 ** (.16)		-.21 **(.05)
8. Relational victimization	-.27 **(.08)	.33 ** (.12)	-.18 **(.03)	-.14 **(.02)	-.07 (.00)	-.19 **(.04)	-.15 ** (.02)	
<i>M</i> girls / boys (effect size) ^a	28.90 / 30.51 (0.34)**	38.36 / 38.41 (0.01)	0.06 / -0.01 (0.22)**	15.64 / 15.58 (0.02)	14.31 / 14.04 (0.15) *	14.00 / 14.10 (0.05)	16.15 / 16.20 (0.02)	18.00 / 18.30 (0.04)
<i>SD</i> girls / boys	4.79 / 4.73	8.85 / 8.55	0.32 / 0.31	2.48 / 2.36	1.85 / 1.73	2.13 / 2.16	2.15 / 2.01	6.98 / 6.48

^a Mean used to analyze gender differences.

Levels of significance: ** $p < .01$; * $p < .05$

Figure 1

Hypothesized structural model for girls (significant paths with box) and for boys (significant paths without box)



* $<.05$, ** $<.01$, *** $<.001$