



Aggression and victimization: the perception of students and associated factors

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Abstract

Introduction. Research on bullying, and on its protective or risk factors in the school environment, continues to be an important area both for investigation and for educational practice. Certain personal and contextual characteristics have been considered key to preventing school violence.

Method. The aim of this study was to examine the relationship between victimization and aggression roles and how certain variables in the students' direct context impact these two psychological processes. For this purpose, we surveyed 1278 students (47.7% girls) from southern Spain (Andalusia), ages 10 to 14 years ($M = 11.11$; $SD = 0.754$).

Results. Linear regression analyses showed the explanatory power of protective factors such as social adjustment or adjustment to norms, on perception of victimization and unjustified aggression. Individual factors such as gender, and personal factors like self-esteem, give rise to differences in one's perceived involvement in either role.

Discussion and conclusions. This article focuses on the role of factors in the immediate context.

Key words: Aggression, victimization, personal factors, contextual factors, Elementary School.

Resumen

Introducción. La investigación sobre el bullying, así como de los factores protectores o de riesgo que se presenten en la escuela continúa siendo un área de estudio relevante en investigación educativa y también en la práctica escolar. Determinadas características personales y contextuales se han considerado claves para la prevención de la violencia escolar.

Método. El presente trabajo trata de examinar la relación existente entre la victimización y la agresión y el impacto que en ambos procesos psicológicos tienen ciertas variables del contexto directo de los escolares. Para ello se encuestó a 1278 escolares (47.7% chicas) del sur de España (Andalucía), de edades comprendidas entre los 10 a 14 años ($M = 11.11$; $DT = 0.754$).

Resultados. Análisis de regresión lineal mostraron el poder explicativo de factores protectores como el ajuste social o el ajuste a las normas ante ambos, la percepción de victimización y agresión injustificada. Factores individuales, como el género y personales como la autoestima marcan diferencias en la percepción de implicación en ambos roles, junto a otros.

Discusión y conclusión. El foco de este artículo se pone en el papel de los factores de contexto inmediato.

Palabras clave: agresión, victimization, personal factors, contextual factors, escuela.

Introduction

Social life and relationships between children at the levels of basic schooling (primary, and early secondary, in countries where this is generalized) have become one of the great challenges in education: the construction of social and emotional competencies needs to be encouraged, in addition to the purely academic competencies. This concern, both educational and social, has been reflected in the scientific sphere, where, in recent years, special attention has been given to improving social interaction at school as the best channel for improving students' social life (Ortega, 2015).

Studies about interaction at school recognize the dynamic, group-related nature of this construct, which involves interactions between students, teachers and families. This fabric of interpersonal relations that characterizes life at school includes the beliefs, attitudes and values of its protagonists and, logically, influences the quality of the teaching-learning process (García-Raga & López-Martín, 2009; Godás, Santos & Lorenzo, 2008; Viguer & Solé, 2011). Understanding "interaction at school" as a dynamic, inter-group construct means we take into account the positive aspects of establishing interpersonal ties, but also pay attention to the difficulties that arise in interpersonal relations. Among these, bullying and its subsequent problems of victimization and aggression between peers is one of the most troubling concerns within the school context (Modecki, Minchin, Harbaugh, Guerra & Runions, 2014).

Being abused, attacked, hit, or in short, victimized by one's peers, is the most-researched problem in recent years in the study of interaction at school (Baldry & Farrington, 2007; Ttofi & Farrington, 2011). When these behaviors involve domination and victimization situations, where one or more school children intentionally and repeatedly over time exercise physical, psychological or social power over a victim who has little chance of self-defense, this is understood to be bullying (Olweus, 1999). But aggressive, victimizing behaviors that take place in a transitory way, without being based on a stable, domination/submission schema, are also worrisome. These may be pre-bullying dynamics, and they are most certainly associated with equally harmful psychological, social and emotional consequences for those involved (Crick & Grotpeter, 1995; Monks & Smith, 2010).

Worldwide research on bullying at school indicates that a significant number of school children are involved in this form of cruelty on a prolonged, persistent basis. For many of them (20-35%), the bullying phenomenon may not last for very long, it may dissolve relative-

ly quickly, but 5-8% sustain aggression or victimization for so long and with such devastating effects that we can speak of bullying phenomena occurring with impunity. At least 5% of pupils in the upper years of primary education and the first years of secondary education find themselves subjected to this type of problem once a week, and the same percentage of students bully others at least once a week, if we give credit to the general trends shown in studies with Spanish samples (García-Fernández, Romera & Ortega, 2016; Ramírez & Justicia, 2006) or European samples (Livingston, Haddon, Görzig & Ólafsson, 2011; Smith, 2016; Watters, 2011).

In short, bullying is present at differing levels of severity depending on how it appeared and developed in a specific school or classroom. Consequently, we refer to degrees of severity, from a less serious type which is widespread among school children (20-35%), to a more serious, very harmful type, less widespread but involving great risk of serious harm to the personality of the sufferer, and which indicates a severe psychological disorder in the personality of its perpetrator (Juvonen & Graham, 2014; Ortega, 2010).

Studies on the prevalence of aggression and victimization indicate that the rate of involvement is higher in boys than in girls, for both victimization and aggression (Cerezo, Sánchez, Ruíz, & Areense, 2015; Menesini & Salmivalli, 2017; Romera et al., 2017). With respect to age, the time of greatest incidence of bullying behaviors between school children is from 11-15 years old, coinciding with the last two years of primary education and the first years of compulsory secondary education in Spain (Garaigordobil & Oñederra, 2009; García-Fernández, Romera, & Ortega, 2015; Hymel & Swearer, 2015). Another personal-type variables that appears in most studies on bullying is that of self-esteem, which appears in different measure in behaviors of victimization vs. unjustified aggression (Fanti & Henrich, 2015; Modecki, Barber, & Vernon, 2013; Suresh & Tipandjan, 2012), in the general sense of lower self-esteem in school children who feel victimized by others (Garaigordobil, Martínez-Valderrey, & Aliri, 2013; Suresh & Tipandjan, 2012). In some research studies, however, this relationship of influence is mediated by gender, where low self-esteem is related to victimization in girls, and high self-esteem is related to aggression behaviors in boys (Brito & Oliveira, 2013).

Research studies on the characteristics of those involved in serious forms of bullying (victimization and aggression) have also described different protective and risk factors related

to the context. In the social context, lack of adjustment within the peer network has also been identified as a risk factor for involvement in aggression and victimization phenomena (Berger & Caravita, 2016; Rigby, 2003). Specifically, those who develop victimization behaviors are recognized as presenting poor social adjustment among their classmates of both sexes and are identified as a group that tends toward isolation (Cerezo, Sánchez-Lacasa, Ruiz-Esteban, & Areense, 2015; Cook, Williams, Guerra, Kimy Sadek, 2010; Holt, Finkelhor, & Kantor, 2007; Estévez, Murgui & Musitu, 2009). But the quality of positive relationships has also been recognized in connection with reducing the negative effects of victimization (Woods, Doane & Kalsi, 2009). In the case of aggression behaviors, research studies have shown that their protagonists exercise certain social skills that allow them to act with impunity, and obtain acceptance from the group (Berger & Caravita, 2016; Gini, Pozzoli & Hauser, 2011).

Adjustment to norms is another contextual element of scientific interest in understanding aggression and victimization (Del Rey, Casas & Ortega-Ruiz, 2017; Ortega-Ruiz, Del Rey & Casas, 2013). Difficulty in accepting social norms has been identified in those who develop aggression behaviors (Cerezo, 2002). In victimization, these school children have been defined as submissive to the rules (Ortega, 2000), but rule-breaking behaviors have also been attributed to them (Serrate, 2007). More recent studies have found a decrease in the risk of being victimized in contexts where teachers condemn behaviors of indiscipline (Saarento, Kärnä, Hodges & Salmivalli, 2013); classroom rules are then a positive support that enhances the quality of personal relationships (Herrera, Romera, Ortega, & Gómez, 2016). Moreover, Saarento, Boulton and Salmivalli (2015) also showed changes in students' perceptions about intimidation, leading to a decline in these behaviors, when mediated by the effects of programs implemented, and there was an effect on teacher attitudes of approval or disapproval toward bullying behaviors. In addition, a perception of rule fairness has also been significantly related to greater student participation and academic achievement, with lower levels of disruptiveness, aggression and victimization (Gottfredson, Gottfredson, Payne & Gottfredson, 2005).

The scientific literature on peer victimization and aggression, in the framework of studies about bullying, has documented the importance of key contextual factors for understanding the complexity of these phenomena (Casas, Del Rey & Ortega, 2013; Fanti, Deme-triou & Hawa, 2012; García-Fernández, Romera & Ortega, 2015; Hemphill et al., 2012;

Hinduja & Patchin, 2013; Preddy & Fite, 2012), giving them no less importance than personal factors (Atik & Güneri, 2013; Feslt & Quandt, 2013; García-Fernández et al., 2015).

The high prevalence of aggression and victimization between school children, and the negative consequences that are attached, reveal just how critical it is to eradicate and prevent these behaviors in order to improve interaction at school and the school climate (Ttofi & Farrington, 2011). For these reasons, the objective of the present study was to understand the factors that would explain involvement in the phenomena of victimization and unjustified aggression between school children.

Objectives and hypotheses

The objective of this study was to understand the protective and risk factors, whether personal or contextual in nature, that would explain involvement in the phenomena of victimization and unjustified aggression between school children. We start from the *hypothesis* that both personal factors and contextual factors influence involvement in victimization and aggression, despite the tendency of research studies to direct greater attention to the psychological variables of the individual (García-Fernández et al., 2015).

Method

Participants

Participating in the study were a total of 1278 fifth- and sixth-grade students (52.3% boys and 47.7% girls) who were attending public, private, or partially subsidized schools in the 8 provinces of Andalusia. Fifth-graders made up 49.4% of the sample, and sixth-graders the remaining 50.6%. The age of the school children ranged from 10 to 14 years ($M = 11.11$; $SD = .75$) (See Table 1).

Table 1. *Sample distribution by student's year in school*

	5th grade		6th grade	
	N	%	N	%
Boys	334	26.0	338	26.4
Girls	297	23.4	309	24.2

Instruments

A battery of instruments was used, including the *Escala de Convivencia Escolar* (ECE) [Scale of Interaction at School] (Del Rey, Casas & Ortega-Ruiz, 2017), which assesses the student's perspective of different aspects relating to interaction at school, from the perception of safety and protection, to the way that discipline is being followed, how well the respondent himself/herself follows the rules, and their satisfaction in regard to all these issues (Del Rey, Casas & Ortega-Ruiz, 2017). This scale is composed of 50 Likert-type items, in the affirmative, with 5 response options referring to perceived frequency, with values ranging from 0 = never to 4 = always. The items are grouped into eight dimensions of the construct "interaction at school". For this study, the following dimensions were analyzed, keeping in line with the literature review presented above:

Victimization ($\alpha = .81$): students' perception of being exposed to violent, negative actions on the part of one or more students. Contains six items. Ex. "A classmate has hit me."

Disruptiveness ($\alpha = .79$): negative actions performed by students that interrupt the teaching-learning process. Contains six items. Ex. "There are boys/girls who don't let the teacher teach."

Social Peer Network ($\alpha = .77$): strengths of the peer microsystem that foster students' personal and socio-emotional development. Contains nine items. Ex. "We (students) get along well with each other."

Aggression ($\alpha = .78$): hostile behaviors enacted by students toward their classmates. Contains four items. Ex. "I have insulted another student."

Adjustment to norms ($\alpha = .72$): how well students' behaviors comply with classroom and school norms and conventions. Contains five items. Ex. "I follow the rules."

Indiscipline ($\alpha = .71$): student actions that go against classroom and school norms for interaction. Contains four items. Ex. "I only follow the rules that suit me."

The Rosenberg Self-esteem Scale (1965), composed of ten items, was used to measure self-esteem. Five of the items have positively worded statements and five are negatively worded; they describe confidence vs. self-doubt, pessimism or fatalism that school children apply to themselves. The scale assesses two dimensions through Likert-type items answered on a four-point scale—from 1 "strongly agree" to 4 "strongly disagree". These dimensions distinguish between positive self-esteem, addressed by six items ($\alpha = .716$), and negative self-esteem, addressed by four items ($\alpha = .647$) (García-Fernández, Romera & Ortega, 2015).

Procedure

Sample selection was carried out using a stratified, random sampling procedure (Contandriopoulos, Champagne, Potvin Denis & Boyle, 1991) under the criteria of *year in school* and *province*: two possible school years (5th and 6th grades) by 8 provinces (16 total strata). Sampling error was 3% and confidence level was 97% (Santos et al., 2003).

Randomly selected schools were contacted with a formal document outlining the nature, purpose and objectives of the investigation. Once the school agreed to participate and the families were informed, researchers who were trained in administering the questionnaires visited the schools to do so, as time and classroom availability allowed. Expressed emphasis was given to the voluntary, anonymous nature of participation. The regular classroom teachers left the room during test administration, which took place collectively in a single 50-minute session.

Data analyses

Descriptive analyses of central tendency and dispersion (Buendía, Colás & Hernández, 1998) and multiple linear regression (Aldrich & Nelson, 1984) were carried out to establish the predictive variables for victimization and unjustified aggression.

For the descriptive study, univariate analyses were used, such as Student's *t* test and Spearman correlations. To study how each variable influences the profiles of victimization and aggression, linear logistic regression analyses were performed, using the stepwise method (Aldrich & Nelson, 1984), where $p < .05$ and $p < .01$ were considered levels of significance.

SPSS version 20.0 was used to log and codify the data.

Results

The descriptive analyses indicated higher means in victimization ($M = 1.075$; $SD = .937$) than in aggression ($M = .891$; $SD = .833$). Statistically significant gender differences were observed in involvement in victimization and aggression. Specifically, results of the T test for equality of means showed that boys presented higher means than girls in both victimization [$t(3.276) = .295$; $p = .001$; $d = .847$] and in aggression [$t(8.994) = 28.876$; $p = .000$; $d = .7555$] (see Table 2).

Table 2. *Descriptive statistics of victimization and aggression according to gender*

Group statistics					
	Gender	N	M	S.D.	S.E.
Victimization	Male	581	.998	.849	.035
	Female	534	.832	.842	.036
Aggression	Male	605	.979	.836	.034
	Female	561	.585	.654	.027

In relation to *Age*, measured by Year in School (5th grade, 10-11 years; 6th grade, 11-12 years); statistically significant differences were also found in behaviors of aggression. The descriptive analyses of comparisons of means using the T test showed that in the phenomenon of aggression [$t(-.925, 1169) = 5.583; p = .004; d = .780$], there are higher means in 6th grade than in 5th grade (see Table 3). No statistically significant differences were observed for victimization.

Table 3. *Descriptive statistics of victimization and aggression according to year in school*

Group statistics					
	Year in School	N	M	S.D.	S.E.
Victimization	5th grade	551	.901	.831	.035
	6th grade	573	.944	.874	.036
Aggression	5th grade	578	.724	.737	.030
	6th grade	599	.856	.817	.033

Pearson correlations indicated statistically significant differences in all the variables studied, both in victimization and in aggression. Social adjustment between peers, adjustment to social norms and positive self-esteem showed an inverse correlation, indicating that the greater the involvement in victimization and aggression, the lower these variables (see Table 4). As for the variables of indiscipline, disruptiveness and negative self-esteem, there was a

positive or direct correlation, implying that as victimization and aggression increase, so do these variables.

Table 4. *Pearson Correlations for Victimization and Unjustified Aggression*

	Social adjustment with peers	Adjustment to norms	Indiscipline and disruptiveness	Self-esteem +	Self-esteem -
Victimization	-.496*	-.254*	.270*	-.199*	.357*
Aggression	-.339*	-.544*	.568*	-.139*	.167*

*Correlations greater than 0.4.

The results of linear regression analyses were statistically significant for victimization ($F = 95,789$; $df = 4$). The R^2 value was .326. Social adjustment was negatively related to victimization, unlike the variables of adjustment to social norms, indiscipline and disruptiveness and negative self-esteem, which showed a direct relationship to victimization (see Table 5).

Table 51. *Linear regression model for victimization II*

Model	Non-standardized coefficients	
	β_p	Std. Error
1 (Constant)	1.276	.221
X ₁ Social adjustment	-.487 (β_1)	.035
X ₂ Adjustment to norms	.131 (β_2)	.055
X ₃ Indiscipline and disruptiveness	.223 (β_3)	.044
X ₄ Negative self-esteem	.226 (β_4)	.039

For aggression, the linear regression model produced a statistically significant, negative relationship ($F= 144.692$; $df= 4$) to social adjustment and to adjustment to norms, meaning that as these variables increase, aggression decreases. By contrast, indiscipline and disruptiveness showed a positive relationship, that is, as disruptiveness and indiscipline increased, so did unjustified aggressiveness (see Table 6). The R^2 value was .416, indicating that approximately half of the variability in aggressiveness is explained by these variables.

Table 62. *Linear regression model for unjustified aggressiveness*

Model		Non-standardized coefficients	
		β_p	Std. Error
1	(Constant)	1.962	.182
	X ₁ Social adjustment	-.176 (β_1)	.029
	X ₂ Adjustment to social norms	-.274 (β_2)	.047
	X ₃ Indiscipline and disruptiveness	.445 (β_3)	.038

Discussion and Conclusions

The purpose of this research was to examine the protective and risk factors that would explain the phenomena of victimization and unjustified, persistent aggression between peers in primary school children. From the dynamic viewpoint of behaviors of interpersonal violence—namely, unjustified, persistent aggression that causes victimization—the aim was to find any common explanatory relationships as a function of certain personal variables (gender, age, and positive or negative self-esteem) and of contextual characteristics or specific aspects that affect the immediate social context in which the children’s interpersonal relations take place. We started from the hypothesis that both personal factors and contextual factors influence involvement in perceived victimization and aggression, despite the formerly mentioned tendency of research studies to focus greater attention on the psychological variables of the individual (García-Fernández et al., 2015).

Research on the type of factors that influence typical bullying behaviors has shown results which identify both contextual factors and personal factors (Atik & Güneri, 2013; Casas, Del Rey & Ortega, 2013). Results from the present study indicate that in addition to the children’s personal factors, particular attention should be paid to contextual factors, in order to understand why boys and girls get involved in these serious forms of bullying, or perceive themselves as involved. This is consistent with certain international studies (Demetriou & Hawa, 2012; Hinduja & Patchin, 2013; Preddy & Fite, 2012) as well as our own previous

studies (García-Fernández et al., 2015). Perhaps we should understand that aggravation of the two defining behaviors of bullying, that is, unjustified aggression and victimization, is not only due to certain characteristics of their protagonists, but that contextual elements are also important, such as indiscipline, poor adjustment to norms, or persistent maladjustment in the peer network itself (social adjustment). These elements are important as factors of the immediate social context, of interaction at school, and are within reach of school teachers and authorities. They must be taken into account if we wish to prevent not only the appearance but also the exacerbation of behaviors that constitute the phenomenon of bullying.

The results pertaining to factors studied in this investigation identify how they influence profiles of victimization and unjustified aggression. Regarding the gender differences observed, boys were more likely to be involved in bullying, a fact that concurs with most research studies in this field (Ortega, 2010; Cerezo et al., 2015; Menessini & Salmivalli, 2017; Romera, et al., 2017). Nonetheless, studies that emphasize these differences also refer to the effect of other variables like self-esteem (Brito & Oliveira, 2013), sociometric status and popularity (Sentse, Kretschmer & Salmivalli, 2015). Age differences were not found, although, according to prior research, larger numbers of cases are reported as children progress through school, reaching their maximum in the first years of secondary education, and gradually declining thereafter (Garaigordobil & Oñederra, 2009); the present study reflects a more reduced age range.

Behaviors of *victimization*, as expected, are associated with low self-esteem, in agreement with studies where victims are characterized by a lower level of self-worth (Garaigordobil, Martínez-Valderrey & Aliri, 2013; Suresh & Tipandjan, 2012). Regarding *social adjustment* between peers, in the present study victimization is explained by a low level of this factor, consistently with previous studies that recognize poor social adjustment in victims (Cerezo, Sánchez-Lacasa, Ruiz-Esteban & Areense, 2015), perhaps due to their difficulties in assertiveness, and of course, to the deficit in empathy that usually characterizes the aggressor. Finally, we note a relationship between victimization and adjustment to norms, where victims show behaviors that are better adjusted to the norms, as was reported by Díaz-Aguado and Martínez-Arias (2013). These findings indicate that school children's immediate social context, and low self-esteem, may represent elements of risk for developing victimization, as has been affirmed in previous studies (García-Fernández et al., 2015).

In the case of the phenomenon of *unjustified aggression*, low social adjustment has also been noted as a risk factor; this relationship can be explained by considering the negative emotions triggered by these behaviors between peers, following the line of previous studies that recognize bullies as low in skills, but with a certain social ability that allows them to obtain the acceptance of the group (Berger & Caravita, 2016; Gini, Pozzoli & Hauser, 2011). Regarding adjustment to norms, this study recognizes that school children who enact behaviors of unjustified aggression also present disruptive behaviors and lack of adjustment to norms, thereby indicating the importance of regulating interpersonal relations (Herrera, Romera, Ortega & Gómez-Ortiz, 2016). This relationship may be explained on the basis of social adjustment, given that the lack of skill for managing social relationships with their peers may be a factor that explains behaviors they enact in other contexts where social skills must also be developed. These results again reinforce the idea that the dynamics of aggression and victimization take on special importance when framed in a social context.

As for contributions of the current findings to this sphere of knowledge, we can draw out a number of *practical implications* related to prevention, but above all to educational intervention in very severe cases of bullying. The data suggest the need to pay more attention to contextual factors in the configuration of both processes, unjustified aggression and victimization. The factors of social adjustment between peers and adjustment to norms may be key to explaining situations of domination-submission (Ortega, 2000 & 2010) that are generated in the school context and which represent serious forms of bullying. The educator must know how to deal with abuse situations and have the resources at his or her disposal to prevent them. Not only does a positive social climate facilitate the teaching-learning process, but interpersonal relations show a clear, positive effect on psychological and social development, helping to form competent citizens for living and for managing their life in society. Dealing with these problems requires taking a preventive approach that is developmentally focused, that puts into practice the social and emotional skills that will help school children become integrated in their social context, and that stimulates attitudes, values and behaviors for preventing issues with violence in the different stages of education (García-Fernández, Gómez-Ortiz & Romera, 2016).

Finally, we must refer to possible *limitations* of the research presented here. Measurement of variables using self-reports may mean that the results reflect a degree of social desirability in the subjects' responses. The perception of other groups would be needed in order to

assess other contextual variables such as social acceptance, popularity, and social goals, as well as qualitative data that would give us access to the perspective of onlookers. As a future line for research, we suggest the use of longitudinal studies and explanatory models for analyzing the stability of these findings.

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