International Journal of Instruction e-ISSN: 1308-1470 • www.e-iji.net



April 2024 • Vol.17, No.2 p-ISSN: 1694-609X pp. 1-16

Article submission code: 20230405111852



Accepted: 04/09/2023 OnlineFirst: 01/01/2024

# Academic Performance and Family Characteristics of Adolescents with Violent Behaviour or Victimised by their Peers in the School Environment

Ana Isabel Invernón Gómez

Universidad de Granada, Granada, Spain, anaisabelinvernon@gmail.com

# María Isabel Jiménez Morales

Universidad de Granada, Granada, Spain, mijimenez@ugr.es

School violence and high failure and dropout rates are a serious social problem worldwide. The influence of family variables on violent behaviour is present in the literature but our aim was to analyse the relationship of violent behaviour and school victimisation during adolescence with academic performance and family climate. Method; An ex post facto retrospective single-group design was used. The total sample consisted of 1223 students (45% male), with an age range between 13 and 18 years. The Delinquent and Violent Behaviour Scale was used to assess maladaptive social behaviours and students reported mean scores in language, environmental knowledge and mathematics and aspects related to family structure and the quality of relationships with both parents. The results identified violent students, victimized students, and victim and violent students (combined role). All had low academic achievement, especially boys with a violent and combined role profile. Likewise, the probability of low academic achievement was higher for those whose parents had low academic or professional qualifications, if they perceived a poor relationship with the mother or if their gender is male. Conclusions: The results obtained are discussed in terms of their educational implications, underlining the need to reinforce positive and empathic parental interactions, mainly of the mother.

Keywords: school violence, school victimisation, academic achievement, family, adolescence

# INTRODUCTION

School failure and violence among adolescents is currently a cause of great concern among the scientific and educational community worldwide, mainly due to the exponential increase in cases. Current studies determine that one in three students have been threatened or assaulted by their peers (UNESCO, 2019). For its part, the Report carried out by the Programme for International Student Assessment (OECD, 2018) places the performance of Spanish students below the average of OECD countries in subjects such as mathematics and science. Combining these two phenomena, serious consequences of violence in the classroom are evident, such as school dropout (Ruiz-

**Citation:** Gómez, A. I. I., & Morales, M. I. J. (2024). Academic performance and family characteristics of adolescents with violent behaviour or victimised by their peers in the school environment. *International Journal of Instruction*, *17*(2), 1-16. https://doi.org/10.29333/iji.2024.1721a

Ramírez et al., 2018) or low academic performance (Cerda et al., 2018). As a consequence, it is urgent to intervene on protective factors of classroom violence as a means to reverse the alarming data regarding the performance of their students. Among these variables are adolescent's perceptions of the family climate, conflicts or the quality of communication with both parents (Rodríguez & Guzmán, 2018). Further analysis of the profile of students who perpetrate and receive violence will also help to create appropriate intervention pathways.

#### Academic Performance, Classroom Violence and Family Variables

School failure is a problem in developed countries, as indicated in Eurostat's report on early school leaving and education in Europe for the year 2022. Spain has the second highest dropout rate in the European Union, i.e. 13.3% of Spanish young people aged 13-24 have not completed Compulsory Secondary Education. Academic performance is a multi-causal construct, which depends on personal and environmental factors and aspects such as family climate and structure, all of which have been extensively analysed. For example, Montalbán and Ruíz-Valenzuela (2022) establish high levels of school dropout that would significantly affect boys and students from low-income families, with students from higher socio-economic backgrounds performing significantly better in all subjects and levels tested. In this line, aspects such as family conflicts (Estévez et al., 2018) or family involvement (Rodríguez et al., 2017) and socioeconomic status (Montalbán & Ruíz-Valenzuela, 2022) have been related to academic results. For some authors, family climate is the most influential factor in the performance and socialisation of the individual (Álvarez-Bermúdez & Barreto-Trujillo, 2022). However, although there is clear evidence of the influence of a negative school climate in which violent behaviours are common with low overall student performance, the type of relationship is not entirely clear mainly due to different interpretations of the term school violence leading to different results. In our study, the manifestations of violence are diverse, non-accidental violent behaviours, with the aim of intentionally causing harm and victimisation among peers, i.e. overt or relational, reactive or proactive aggression towards students, teachers and school facilities (Estévez et al., 2013).

As for prevalence data, in our country, Cruz-Manrique et al., (2021) establish a prevalence of 81.5% of students victimised by their peers and 92.7% who present violent behaviours compared to Sabariego (2017), who obtained a prevalence of 5.8% of victimisation by bullying in ESO students or Piñero et al., (2014) who set at 50% of students who suffered situations of school violence. The World Health Organisation (WHO), in a study carried out with a sample of 43 countries, established a bullying prevalence rate of between 1 and 36% for violent behaviour, and between 2 and 32% for victimisation behaviour. This disparity may be due to the diversity of interpretations of the construct itself or to the country and culture of origin of the sample analysed (Hymel & Swearer, 2015). As for the causes related to these behaviours, Estévez et al. (2018) confirms a direct relationship between violent behaviour and the frequency of conflicts in the family, the deterioration of family communication and low affective cohesion among family members. In a foreign population, Choi et al., (2022) show that the perceived closeness of parents plays a mediating role in the development of violent

behaviour in adolescence. The existence of violent and victimising behaviours in the classroom has a negative impact on students' overall performance; thus, violent students, victims of peer rejection or those who present a combined role, tend to have a low self-perception of academic efficacy, which in turn has an impact on lower school performance (Schenke et al., 2015). Despite a broad consensus on the influence of school and family climate on the school performance of adolescents, there is little research in Spain that specifically analyses students involved in maladaptive behaviour in aspects such as family structure and climate or academic functioning from a triple perspective, as violent students, as victims of violent behaviour or as victims and violent students (combined role).

#### The Present Study

The increase of conflicts in the classroom, together with an increase in the number of young people who have been victims of school violence (UNESCO, 2019) and of dropout and failure rates (Eurostars, 2022) makes it necessary to study in depth the relationship between both constructs, since prosocial behaviour determines academic performance (Del Barrio et al., 2000; Ruiz-Ramirez et al., 2018), but, in addition, other personal (e.g., Gender) and family variables (e.g., sociocultural level, quality of relationships) also play a role (Montalbán & Ruíz-Valenzuela, 2022).

There are few studies that analyse the influence of these personal and family variables on the performance of students with violent behaviour and/or school victimisation, so the present study aims to analyse the educational functioning of students with maladaptive social interaction patterns as well as the influence of the family (family structure and quality of relationships). On the other hand, the fact that most of the studies on violence are carried out from the interpretation of bullying or cyberbullying means that other situations of violence or victimisation that do not fit the criteria of bullying (i.e., permanence in time and power imbalance) are not considered despite their serious socioemotional and behavioural consequences. Aggressive pupils present more behavioural problems and less prosocial behaviour than pupils who are victims of bullying. Victims of violence score lower in self-esteem and higher in symptoms of depression and emotional and behavioural difficulties than aggressors or non-victims (Álvarez et al., 2022). Finally, paying attention to the overlapping of roles, in this case that of aggressor and victim (combined role), may be of interest in order to adapt care and prevention measures to each behavioral pattern.

Therefore, the following objectives are proposed:

1. To identify the involvement in violent behaviour (according to the role of aggressor and/or victim) among adolescents in Compulsory Secondary Education as well as its relationship with gender.

2. To analyse academic performance as a function of the pattern of social interaction presented (violent and/or victim) as well as the influence of family and gender variables.

# METHOD

### **Participants**

The sample of 1223 Compulsory Secondary Education students aged between 13 and 18 years (M=13.71; SD=1.31). The sample was selected under non-probability convenience sampling.

#### Instruments

The Violent and Delinquent Behaviour in the Classroom Scale (Rubini & Pombeni, 1992), adapted to Spanish, was used to assess violent behaviour and/or school victimisation. The scale consists of 19 items that measure the frequency of violent behaviour in the classroom in the last 12 months. Violent behaviour is assessed, e.g. "I have painted or damaged the walls". I have painted or damaged the walls of the school or institute; I have assaulted and hit schoolmates) and victimisation (e.g. "they made fun of me in class or a classmate insulted me) using a Likert-type scale (1=never, 5=always).

Academic performance was assessed by means of students' self-reported average grades in Spanish Language, Knowledge of the Environment and Mathematics. Grades were subdivided into two: fail (grades below 5) and pass (grades equal to or above five).

Socio-demographic characteristics were assessed through a survey in which students reported the educational level, employment status and profession of both parents. Students also reported on the existence of conflicts with their parents on a three-category scale (no, sometimes and often) and on the relationship and communication with their parents on a five-category scale (very good, good, fair, bad and very bad).

### Procedure

School principals, head teachers and guidance counsellors were contacted to explain the objectives and ask for their collaboration. An information meeting was held with parents and teachers and their informed consent to administer the questionnaires was requested. Students completed the questionnaires and reported on their perception of family climate, involvement in violent behaviour and school victimisation, and academic results from the previous school year. Two sessions per group were used to administer the questionnaires, and in all cases the help of the classroom tutor was requested during the administration of the questionnaires

### Design and data analysis

An ex post facto retrospective single-group design (Ato et al., 2013) was conducted in which violent behaviour (scores equal to or above 28.54 on the violent behaviour scale and below 16.19 on the victimisation scale) and school victimisation (scores above 16.19 on the victimisation scale and below 28.54 on the violent behaviour scale) were analysed. The sample was divided into four categories; violent pupils, victimised pupils, victimised-aggressive pupils (combined role) and normative group (does not meet the criteria of any category).

Logistic regression was used to analyse the influence of family and gender variables on academic performance. The estimated probability was represented by the odd ratio (OR) statistic and, for model fit, Nagelkerke's R<sup>2</sup> was used as an indicator to establish the percentage of variance explained by the models and the percentage of correctly classified cases. To identify the variables involved in the performance and whether the variables played the role of effect modifiers or confounders, a prior analysis was carried out using contingency tables and Pearson's Chi-square tests and Pearson's correlation analysis, which made it possible to include in the models only those variables that were significant in these prior analyses, to control for possible confounding effects and to take into account possible effect modifications due to the relationship between predictor variables. Multiplicative effects between variables where interaction was detected were included in the models. These models are presented according to the total average grades obtained (overall performance) and the grades in each of the subjects assessed (performance in language, mathematics and knowledge of the environment).

# FINDINGS

### Involvement in violent behaviour and/or school victimisation

25.5% reported having been involved in violence and/or victimisation at school at some point in time. That is, out of every 10 students, between two and three (2.55) reported having been involved in situations of violence in the classroom. Differentiating by role, it was found that 9.3% were involved as aggressors, 11.6% as victims and 4.6% with a combined role (victim-aggressor).

With regard to the profile of aggressors, when compared with the normative group, statistically significant differences were observed according to gender in the role of aggressor ( $\chi^2 = 23.67$ ; p = ,00), with this type of behaviour being more prevalent in boys. In the case of student victims, there were no significant differences in relation to the sex of the students, although there was a greater prevalence of this behavioural pattern in girls. Finally, in the case of students with combined roles, significant differences were found ( $\chi^2 = 6.58$ ; p = ,01), with boys being more involved in these behaviours.

# Academic performance

Although the results showed worse academic performance among students involved in violent behaviour, the differences were not significant. However, the normative group had the lowest percentage of failures in the three subjects assessed when compared to the other categories.

Academic performance and	l behaviour	al styles		
Language	Violent	Victim	Violent + Victim	Normative
Fail	20.4%	12.8%	17.4%	15%
Maths	Violent	Victim	Violent + Victim	Normative
Fail	27.6%	26.4%	21.7%	19.5%
Soc. & Nat. Sciences	Violent	Victim	Violent + Victim	Normative
Fail	15.3%	9.6%	17.4%	9.5%

# Table 1

# Personal and family variables and academic performance

### Violent students

In the case of violent students, it was possible to develop three models for the prediction of low performance (general performance, mathematics and language).

# **Overall performance**

Logistic regression analyses showed significant results for the mother's profession. As Table 2 shows, the proportion of correctly classified cases is 61.2% ( $\chi^{2=}$ ,633; p =.02) and the model fit value (Nagelkerke's R<sup>2</sup>) is ,164. The odd ratio (OR) was 3.78, i.e. the probability of overall underachievement is 3.78 times higher when the mother is in low-skilled jobs or, in terms of probability, 79% more likely if the mother is in low-skilled occupations compared to the probability of underachieving if she is in high-skilled occupations. Low-skilled jobs are defined as jobs that require no formal education.

#### Table 2

Logistic regression for the probability of presenting low academic performance in violent students

Low overall performance	В	SE	Wald	Р	OR	CI 95%
Father's profession * father's employment status	1.06	.57	3.49	.06	2.90	.94 - 8.91
Mother's profession	1.33	.61	4.75	.02	3.78	1.14 - 12.5
Constant	-1.70	.54	9.83	.00	.18	

Note. B = coefficient; SE = standard error; p = probability; OR = odd ratio; CI = 95% confidence

# Mathematics achievement

Exploratory analyses indicated father's profession and mother's profession as relevant variables in the model, as both significantly predicted mathematics achievement, with the interactive effect between the two variables showing the tightest effects. Table 3 shows what model had the best fit, with the proportion of correctly classified cases being 72.4% ( $\chi^{2=}$ , 38; p =.00) and the fit value of the models (Nagelkerke's R<sup>2</sup>) being .139. The odd ratio (OR) for the interaction variable father's profession X mother's profession was 5.28, i.e. the probability of low mathematics achievement is 5.28 times higher when the parents of violent pupils are in jobs requiring low or no qualifications. In percentage terms, it can be indicated that the probability of violent students having low academic achievement in mathematics is 84% more likely if the parents are in professions that require low or no academic qualifications than if they are in professions that require high qualifications.

#### Table 3

Logistic regression for the probability of presenting low academic performance in Maths in violent students

Low performance in Maths	В	SE	Wald	р	OR	CI 95%
Profession *	1.66	.59	7.91	.00	5.28	1.65 -16.84
Constant	-2.14	.52	16.39	.00	.11	

Note. B = coefficient; SE = standard error; p = probability; OR = odd ratio; CI = 95% confidence interval.

#### Language performance

Logistic regression analyses show that only the father's employment status was significant in predicting language performance. Table 4 shows the model with the best fit, with the proportion of cases correctly classified in the model being 79.6% ( $\chi^{2}$ = .256; p =.00, language performance) and the fit value of the models (Nagelkerke's R<sup>2</sup>) being ,094. The odd ratio (OR) for the father's employment status variable was 3.05, i.e. the probability of low performance in language is 3.05 times higher when the father of the violent students is not employed. In terms of percentages, it can be indicated that the probability of violent students having a low academic performance in the subject of language is 75% more likely if the father is not employed.

#### Table 4

Logistic regression for the probability of presenting low academic performance in Language in violent students

Low performance in Language	В	SE	Wald	Р	OR	CI 95%
Sex	.83	.62	1.79	.18	2.29	.68 - 7.73
Father's employment status	1.67	.55	4.21	.04	3.05	.1095
Constant	-1.14	.64	3.19	.07	.31	

Note. B = coefficient; SE = standard error; p = probability; OR = odd ratio; CI = 95% confidence interval.

### **Pupil victims**

For the prediction of underachievement of victim pupils, it was possible to develop three models; one for overall achievement, one for achievement in mathematics and one for achievement in knowledge of the environment.

#### **Overall performance**

Logistic regression analyses indicated father's profession, father's level of education and pupils' gender as significant variables. Although both father's profession and father's level of education were significant, it was the interactive effect between the two that showed the best fitting effects, and this was the model of choice. Table 5 shows the model with the best fit, with the proportion of cases correctly classified in the model being 68.8% ( $\chi^2$ = ,453; p = ,00) and the fit value of the models (Nagelkerke's R<sup>2</sup>) being .17. As table 5 indicates, the odd ratio (OR) for the interaction variable between father's level of education and father's profession was 3.23, i.e. the probability of overall underachievement is 3.23 times higher when the father of the victim students has no education and when he/she has a low-skilled profession. In the case of the gender variable, the odd ratio (OR) was 2.30, i.e. the probability of overall underachievement of students categorised as victims is 2.30 times higher for boys compared to the probability of overall underachievement for female victims and girls. In terms of percentages, it can be indicated that the likelihood of low overall academic achievement of victim students is 76% more likely if the parents are uneducated and if they hold jobs requiring low academic qualifications than if they are educated and hold a qualified job. Victimised students are 69% more likely to have low overall achievement if they are boys compared to the likelihood of low overall achievement in victims if they are girls.

### Table 5

Logistic regression for the probability of presenting low overall academic performance in victimised students

Low overall performance	В	SE	Wald	р	OR	CI 95%
Sex	.83	.41	4.03	.04	2.30	1.02 5.19
Father's level of education - father's profession *	1.17	.51	5.17	.02	3.23	1.17 8.89
Mother's profession	1.11	.60	3.38	.06	3.04	.93 -9.97
Constant	-2.97	.712	17.48	.00	.05	

Note. B = coefficient; SE = standard error; p = probability; OR = odd ratio; CI = 95% confidence interval.

### Mathematics performance

Logistic regression analyses indicated significance for the interactive effect between the variables (father's profession \* mother's profession/ mother's educational level \* father's educational level), with the model showing the best fitting effect. As shown in Table 6, the proportion of correctly classified cases was 73.6% ( $\chi^{2=}$ ,359; p =.00, mathematical performance) and the model fit value (Nagelkerke's R<sup>2</sup>) was ,28. The odd ratio (OR) for the interaction variable between mother's and father's profession was 4.32, i.e. the probability of low mathematics achievement is 4.32 times higher when the parents of the victim pupils are in unskilled professions. In the case of the interaction between the variables father's and mother's level of education, the odd ratio (OR) was 3.33, i.e. the probability of underachieving in mathematics is 3.33 times higher if both parents have a low level of education. In terms of percentages, it can be indicated that the probability of low academic achievement in mathematics for the victim students is 81% more likely if the parents are in low or unskilled jobs and 72% more likely if they have a low educational background.

### Table 6

Logistic regression for the probability of presenting low academic performance in Maths in victimised students

Low performance in Maths	В	SE	Wald	р	OR	95%
Mother's and father's profession	1.46	.61	5.73	.01	4.32	1.30 - 14.33
Mother's and father's studies	1.20	.60	3.97	.04	3.33	1.02 - 10.91
Constant	-2.14	.57	13.76	.00	.11	

Note. B = coefficient; SE = standard error; p = probability; OR = odd ratio; CI = 95% confidence interval. Achievement in environmental knowledge

Logistic regression analyses indicated significance for the variable relationship with the mother. Table 7 shows the model with the best fit, with the proportion of correctly classified cases being 90% ( $\chi^{2=}$ ,106; p =.00) and the model fit value (Nagelkerke's R<sup>2</sup>) of ,058. The odd ratio (OR) for the variable relationship with the mother was 3.85, i.e. the probability of overall underachievement is 3.85 times higher when there is a poor relationship with the mother. In percentage terms, the probability that victim students have a low academic performance in the subject of knowledge of the environment is 79% higher if they have a bad relationship with their mother.

#### Table 7

Logistic regression for the probability of presenting low academic performance in Social and Natural Sciences in victimised students.

Low performance In Soc. and Nat. Sciences	В	SE	Wald	р	OR CI 95%
Relationship with mother	1.34	.68	3.92	.04	3.85 .0698
Constant	-1.17	.57	4.24	.03	.30

Note. B = coefficient; SE = standard error; p = probability; OR = odd ratio; CI = 95% confidence interval.

# DISCUSSION AND CONCLUSIONS

The objectives of the present study were to analyse the prevalence of school violencevictimisation dynamics and the academic performance of students involved in situations of violence, as well as the influence of family and gender variables.

### Prevalence and gender

With respect to the first objective, the results suggest that involvement in violent behaviour is very frequent in schools, as indicated by previous studies. The rate of violent or aggressive behaviour was expected to be between 10% (Estévez et al., 2007) and 16% (Inglés et al., 2008), the rate of students victimised by their peers was expected to be around 10% (Oñate & Piñuel, 2007) and the rate of students with a combined role (victim-violent) was expected to be around 3.4% (Díaz-Aguado, 2005). Despite the similarities found, there is a great disparity, mainly due to the diversity of conceptualisations and measures of assessment of "school violence".

As for the relationship between involvement in violent behaviour and/or victimisation and gender, the rate is higher in boys than in girls, in line with previous studies (Adeballo et al., 2020; Pacheco-Salazar & López-Yáñez, 2019; Triaka & Wendt, 2022). Of the total number of students categorised as violent, 6.3% were boys and 3% girls. The scientific literature uses the assimilation of traditional male stereotypes as an explanatory argument (Povedano et al., 2012). The sex of students does not pose a risk for violence if it is interpreted solely as a biological condition; what does pose a risk are the socio-cultural influences that transmit an idea of masculinity associated with dominance and control. Overcoming sexism and promoting a single identity, in which the values traditionally associated with femininity (tenderness, empathy) and masculinity (strength and power) are compatible, is a priority.

However, no statistically significant relationships were detected in the group of student victims and gender, possibly because there is a similarity in terms of the sex of victimised students, derived from social transformations that have equated both sexes in behaviours such as alcohol, drugs or violence (Garaigordobil et al., 2014). Delving into the variables that moderate victimisation is a key issue, as we are all exposed to violence to varying degrees. We know that emotional intelligence is a protective factor on the psychological adjustment of adolescent victims of bullying and that it could have a moderating role in victimisation behaviours, as it seems to be an important buffer against the negative consequences that victimisation would have on well-being, but only for boys (Quintana-Orts et al., 2020).

### Academic performance

The academic performance of students categorised as violent and/or victims was lower than that obtained by the normative group, although these differences were not significant. Taking into account previous literature (Ruiz-Ramirez et al., 2018; Cerdá et al., 2018), this could be due to the fact that the more pervasive the violence in the classroom, the lower the performance of both the students involved and the whole group -class. Previous research such as that of Schwartz (2016) has found that the major determinant of low achievement is the negative school climate generated by violence. Therefore, interventions should pay attention to classroom climate management, where the teacher plays an important role. The less normalised the school environment is the more difficult it is to deal effectively with the teaching-learning process.

The presence of violent behaviour in the classroom depends on the type of interactions established by the students in a classroom and their degree of cohesion. The scientific evidence is clear in this respect, since students who have less social competence show violent behaviour and a lower psychosocial adjustment and, therefore, a higher risk of presenting behavioural and emotional problems (Garaigordobil, 2009). And there is evidence of a positive relationship between prosocial behaviours and academic performance (Supervía et al., 2019).

Therefore, the design of prevention and intervention programmes for violent dynamics in the classroom should consider the influence of variables such as emotional intelligence (EI), since adolescents who showed greater skill in identifying the emotional state of others reported a lower level of feelings of stress and tension in social relationships (Salguero et al., 2011). Recent studies (Garaigordobil, 2020) show that adolescents with a deficit in intrapersonal emotional intelligence have less empathy, less extraversion and use of cooperation and worse conflict resolution strategies, as well as greater and greater involvement in bullying/cyberbullying and antisocial behaviour.

Emotional skills can predict the psychosocial adjustment of adolescents, due to their relationship with the emotional regulation of students, and can also be determinants of academic performance, as they influence teacher expectations (Nopembri & Sugiyama, 2021). Likewise, Díaz-Aguado & Martínez (2014) determine that the excessive tolerance of "everyday violence" and the insufficient response of some schools in this regard do not help to resolve the situation. Therefore, educational actions should be aimed at curbing the transmission of sexist content and reinforcing teachers' skills. The teacher's skills in transmitting democratic attitudes and values, favouring cooperative work and creating moments of reflection in the classroom as a measure for solving behavioural problems will be fundamental strategies for tackling coexistence problems. These measures could bridge the gap that currently exists between the demands or needs of pupils and the school conditions offered by schools.

# Influence of family variables

#### Violent students

The influence of family factors on achievement is well established in the literature (Rodríguez & Guzmán, 2019). Students with violent behaviour are 79% more likely to perform poorly overall if their mothers are in low-skilled or unskilled occupations.

These data, consistent with previous studies (Montalbán & Ruíz-Valenzuela, 2022), indicate that a rich social and cultural context has positive effects on school performance. The fact that parents occupy low-skilled jobs indicates a low level of education and/or a feeling of dissatisfaction when occupying jobs below the professional category.

We know that parental educational practices characterised by high involvement, positive reinforcement, supervision and the use of consistent discipline will be a protective factor against bullying (Gómez-Medina et al., 2022). These data highlight that intervention proposals should take into consideration the training and education of families in appropriate socialisation styles, away from authoritarianism and neglect, which help children to respect certain limits and self-regulate. They should also take into special consideration the role of the mother in conflict resolution and the type of relationship she maintains with her children since, coinciding with previous studies (Oliva & Parra, 2004), adolescents with violent behaviour significantly emphasise the poor relationship they perceive they have with their mothers.

Looking at specific performance in each of the three subjects assessed, the results indicate that, in mathematics, it was the intersection between the variables father's profession and mother's profession that determined a greater probability of low performance in the case of violent pupils, with those whose parents hold low-skilled jobs being the most likely to fail mathematics. This could be due to difficulties in understanding the subject itself (as it is no longer about basic mathematical concepts) which means that they require some support in their study. Low-skilled or unskilled jobs often require longer working hours that make it difficult to reconcile work and family life, so students may not be able to count on the presence of their parents to provide this support, or may not have the financial resources for academies or private teachers. Although this is a common occurrence, it is worth noting that, on other occasions, adolescents achieve high academic performance by overcoming the possible disadvantages derived from their parents' working conditions. In this sense, research indicates that it would be the accumulation of several risk factors that would influence students' performance, invalidating the isolated influence of a single factor, in this case employment (Lanza et al., 2014).

In language, the father's employment status was the significant variable. Previous studies have established that the professional level of parents play a very important role in the academic performance of their children, mainly through aspects such as the importance given to school success, the social pressure towards academic achievement or the deprivation of resources for study (Ladrón de Guevara, 2000). Thus, the cultural environment that parents can offer their children influences their personality development and socialisation habits, and this in turn has repercussions on school performance (Ladrón de Guevara, 2000; Montalbán & Ruíz-Valenzuela, 2022). De Miguel (2001) highlights the economic and educational level of parents and the family educational climate as family factors related to low performance.

#### Victimised students

For victimised students, the results obtained allowed us to obtain a model in which gender and the interaction of the variables father's level of studies and father's

profession were predictors of general underachievement, suggesting that higher parental academic qualifications could act as a protective factor for underachievement (Calero et al., 2010). A more reinforced social environment with greater economic and cultural resources will provide more strategies for coping with conflict situations with peers and in their school performance. The higher probability of failing if it is a boy (69%) could be explained by factors related to socially accepted gender stereotypes. Educational patterns are different according to gender, which could also influence academic performance, as girls are more task-oriented and generally show a more positive attitude towards school than boys (Van Houtte, 2004).

In mathematics, the results indicate a higher probability (72%) of low achievement if both parents have low educational backgrounds and a higher probability of failing (81%) if both parents have low-skilled jobs. These results show that victim pupils are more influenced than violent pupils by the socio-economic situation (cultural level and occupation) of their parents.

In the subject of environmental knowledge for victim pupils, the probability of failing is 79% higher if the pupil perceives a bad relationship with the mother. The model showed a good fit with 90% of the cases classified correctly. Adolescents who perceive a warm and affectionate relationship with their mother perform better than those who do not, indicating that the role of the mother is key in the education of children, perhaps because of her greater involvement in educational aspects (Jiménez et al., 2019). As the results indicate, a high level of family conflict (especially with the mother) can be detrimental to students' academic performance. In this regard, recent studies such as that of Lee et al. (2022) claim that children who perceive a poor relationship with their mother in turn inhibit the support they may receive from the father figure, leading to a low perception of family support that would further hinder academic success. As a preventive measure, the quality of communication with children can be a factor that positively influences pupils' academic performance.

Although during the adolescent stage social networks and the peer group expand and become more important, the family remains an important figure in their development (Estévez et al., 2008). Consequently, it is essential to create a good family climate so that there is communication and the necessary strategies can be worked on to deal with conflictive situations (Estévez et al., 2018). These results point to the need to involve parents, especially mothers, in intervention and training proposals as a means to improve adolescents' school performance. The family climate should also be a target for interventions, since adolescents who have a better consideration for their parents and feel esteemed have more emotional skills and better social relationships (Salguero et al., 2011).

Logistic regression models are not included for the combined role category as they were not significant. There may be other variables that are influencing their performance, as they possibly present specific difficulties and needs. In terms of the limitations of the present study, the convenience sampling, the cross-sectional design and the use of selfreports are worth mentioning.

In conclusion, the high rates of violence and low performance require the implementation of specific prevention and intervention programmes aimed at fostering

positive social relations, reinforcing emotional education in the family and the classroom.

# REFERENCES

Adebayo, D. O., Ninggal, M. T., & Bolu-Steve, F. N. (2020). Relationship between Demographic Factors and Undergraduates' Cyberbullying Experiences in Public Universities in Malaysia. *International Journal of Instruction*, *13*(1), 901-914. https://doi.org/10.29333/iji.2020.13158a

Álvarez-Bermúdez, J. y Barreto-Trujillo, F. J (2020). El clima familiar y su relación con el rendimiento académico en estudiantes de Bachillerato. *Revista de Psicología y Educación, 15*(2), 166-183. https://doi.org/10.23923/rpye2020.02.194

Álvarez, I. Pérez-Albéniz, A., Lucas-Molina, B. Martínez Valderrey, V. & Fonseca-Pedrero, E. (2022). Acoso escolar en la adolescencia: impacto en el ajuste socioemocional y conductual. *Revista de psicodidáctica*, 27(2), 141-148. https://doi.org/10.1016/j.psicod.2022.02.002

Calero, J., Choi, A. & Waisgrais, S. (2010). Determinantes del rendimiento educativo del alumnado de origen nacional e inmigrante en PISA-2006. *Cuadernos económicos de ICE*, 78, 281-310. http://dx.doi.org/10.32796/cice.2009.78.5977

Cerdá, G. A., Salazar, Y. S., Guzmán, C. E., & Narváez, G. (2018). Impacto de la convivencia escolar sobre el rendimiento académico, desde la percepción de estudiantes con desarrollo típico y necesidades educativas especiales. *Propósito Representaciones*, *6*(1), 247-300. http://dx.doi.org/10.20511/pyr2018.v6n1.194

Choi, H. J., Cooke, J. E., Madigan, S., & Temple, J. R. (2022). The Impact of Parent-Child Closeness and Romantic Attachment on Dating Violence Perpetration Adolescence. *Journal of Interpersonal Violence*. 29(1),125– 150. https://doi.org/10.1177/0192513x07306980

Cruz-Manrique, & Olaizola, J. H., de Lourdes Cortés-Ayala, M., & Malvaceda-Espinoza, E. (2021). Efecto de la violencia y victimización escolar en la ideación suicida en adolescentes mexicanos. *International Journal of Psychological Research*, 14(2), 30-36. https://doi.org/10.21500/20112084.5109

De Miguel, C. R. (2001). Factores familiares vinculados al bajo rendimiento. *Revista complutense de educación*, 12(1), 81-113.

Del Barrio, C., Martín, E., Montero, I., Gutiérrez, H. & Fernández, I. (2000). La realidad del maltrato entre iguales en los centros de secundaria españoles. *Infancia y Aprendizaje*, *26*, 25-47. https://doi.org/10.1174/02103700360536419

Díaz-Aguado, M. (2005). La violencia entre iguales en la adolescencia y su prevención desde la escuela [The violence between adolescents and its prevention from school]. *Psicothema*, *17*(4), 549-558.

Díaz-Aguado, M. & Martínez, R. (2014). Types of adolescent male dating violence against women, self-esteem, and justification of dominance and aggression. *Journal of Interpersonal Violence*, *30*(15), 1-23. https://doi.org/10.1177/0886260514553631

Estévez, E., Jiménez, T. & Musitu, G. (2007). Relaciones entre padres e hijos adolescentes. Nau-Libres.

Estevez, E., Jiménez, T., & Moreno, D. (2018). Aggressive behavior in adolescence as a predictor of personal, family, and school adjustment problems. *Psicothema*, *30*(1), 66-73. https://doi.org/10.7334/psicothema2016.294

Estévez, E., Jiménez, T.I., Moreno, D. & Musitu, G. (2013). Un análisis de la relación entre victimización y conducta violenta en la escuela. *Revista Española de Psicología*, *16*(22). 53-65. https://doi.org/10.1017/sjp.2013.40

Estévez, E., Jiménez, T. & Musitu, G. (2008). Violencia and victimization at school in adolescence. En D.H. Molina (ED), *School Psychology: 21st Century Issues and Challenges* (pp. 79-115). Nova Science Publishers.

EUROSTAT. (2022). Indicadores educativos. Recuperado de la base de datos de Eurostat.

Garaigordobil, M. (2009). A comparative analysis of empathy in childhood and adolescence: Gender differences and associated socio-emotional variables. *International Journal of Psychology and Psychological Therapy*, 9(2), 217-235.

Garaigordobil, M., Martínez- Valderrey, V. y Aliri, J. (2014). Victimization, perception of violence, and social behaviour. *Journal for the Study of Education and Development*, *37*(1), 90-116. https://doi.org/10.1080/02103702.2014.881651

Garaigordobil, M. (2020). Intrapersonal Emotional Intelligence during Adolescence: Sex Differences, Connection with other Variables, and Predictors. *European Journal of Investigation in Health*, *Psychology and Education*, *10*, *899–914*; https://doi.org/10.3390/ejihpe10030064

Gómez-Medina, M.D., Estévez, C., Sitges, E. & Carrillo, A. (2022). Relación entre las prácticas educativas parentales y la participación de los hijos en acoso escolar. *Revista de Psicología y Educación, 17*(2), 171-176. https://doi.org/10.23923/rpye2022.02.222

Hymel, S. & Swearer, S.M (2015). Four decades of research on school bullying: An introduction. *American Psychologist*, 70 (4), 293–299. https://doi.org/10.1037/a0038928

Inglés, C., Martínez-Monteagudo, M., Delgado, B., Torregrosa, M.S., Redondo, J., Benavides, G., García-Fernández, J.M., Benavides, G., García-Fernández, J.M. & García- López, L.J. (2008). Prevalencia de la conducta agresiva, conducta prosocial y ansiedad social en una muestra de adolescentes españoles: Un estudio comparativo. *Infancia y Aprendizaje*, *31* (4). 449-461. https://doi.org/10.1174/021037008786140968

Jiménez, T.I., Estévez, E., Velilla, C.M., Martínez, J. & Martínez, M.L. (2019). Family Communication and Verbal Child-to-Parent Violence among Adolescents: The Mediating Role of Perceived Stress. *Medio Ambiente. Res. Salud Pública*, *16* (22), 4538 https://doi.org/10.3390/ijerph16224538

Ladrón de Guevara, C. (2000). Condiciones sociales y familiares y fracaso escolar. En Marchesi, A. y Hernández Gil, C. (eds.), El fracaso escolar. Doce Calles.

Lanza, Stephanie, Brittany Cooper y Bethany Bray (2014), Population Heterogeneity in the Salience of Multiple Risk Factors for Adolescent Delinquency. *Journal of Adolescent Health*, 54(3), 319-325.

Lee, S. J., Pace, G. T., Lee, J. Y., & Altschul, I. (2022). Parental Relationship Status as a Moderator of the Associations Between Mothers' and Fathers' Conflict Behaviors and Early Child Behavior Problems. *Journal of Interpersonal Violence*, *37*(7–8), 3801–3831. https://doi.org/10.1177/0886260520948514

Montalbán, J. Ruíz-Valenzuela, V. (2022, 14 de septiembre). *Fracaso escolar en España: ¿por qué afecta tanto a los chicos y alumnos de bajo nivel socioeconómico?* EsadeEcPol Center for Economic Policy.https://www.esade.edu/ecpol/es/publicaciones/fracaso-escolar-en-espana-porque-afecta-tanto-a-los-chicos-y-alumnos-de-bajo-nivel-socioeconomico/

Nopembri, S., & Sugiyama, Y. (2021). Assessing Psychosocial Skills and Negative Emotional States of Elementary School Students in Yogyakarta Area. *International Journal of Instruction*, 14(3), 59-72. https://doi.org/10.29333/iji.2021.1434a

OCDE. (2019). PISA 2018. Programa para la evaluación internacional de los estudiantes. Informe Español. OCDE Publishing. https://bit.ly/2HPp9tE

Oliva, A & Parra, A. (2004). Contexto familiar y desarrollo psicológico durante la adolescencia. En E. Arranz (Ed.), Familia y desarrollo psicológico (96-123). Pearson. Prentice-Hall

Oñate, A., & Piñuel, I. (2007). Informe Cisneros X: Acoso y violencia escolar en España. Instituto de Innovación Educativa y Desarrollo Directivo. https://www.bienestaryproteccioninfantil.es/fuentes1.asp?sec=27&subs=281&cod=235 6&page=

Pacheco-Salazar, B., & López-Yáñez, J. (2019). " Ella lo provocó": el enfoque de género en la comprensión de la violencia escolar. *Revista de Investigación Educativa*, *37*(2), 363-378.DOI: http://dx.doi.org/10.6018/rie.37.2.321371

Piñero, E., Arense, J. J., López, J. J. & Torres, A. M. (2014). Incidencia de la violencia y victimización escolar en estudiantes de educación secundaria obligatoria en la Región de Murcia. Revista de Investigación Educativa, 32(1), 223-241. https://doi.org.10.6018/rie.32.1.154251

Povedano, A., Estévez, E., Martínez, B. & Monreal, M.C. (2012). Un perfil psicosocial de adolescentes agresores y víctimas en la escuela: análisis de las diferencias de género. Revista de Psicología Social, 27(2), 169-182. https://doi.org/10.1174/021347412800337906

Quintana-Orts, C., Chamizo-Nieto, M. T., Rey, L. & Neto, F. (2020). Bienestar en víctimas de acoso: ¿Puede la Inteligencia Emocional marcar una diferencia en función del género de los adolescentes?. *Know and Share Psychology*, *1*(4), 189-200. https://doi.org/10.25115/kasp.v1i4.4257

Rodríguez Rodríguez, D., & Guzmán Rosquete, R. (2018). Rendimiento académico de adolescentes declarados en situación de riesgo. *Revista de Investigación Educativa*, 37(1), 147–162. https://doi.org/10.6018/rie.37.1.303391

Rodríguez Rodríguez, D., & Guzmán Rosquete, R. (2019). Rendimiento académico y factores sociofamiliares de riesgo. *Perfiles Educativos, 41*(164), 118-134. https://doi.org/10.22201/iisue.24486167e.2019.164.58925

Rodríguez, S., Piñeiro, I., Gómez-Taibo, M.L., Regueiro, B., Estévez, I. y Valle, A. (2017). Un modelo explicativo del rendimiento en matemáticas: participación de los padres percibida y motivación académica. *Psicothema*, *29* (2), 184-190. https://doi.org/10.7334/psicothema2017.32

Rubini, M. & Pombeni, M. (1992). *Cuestionario de conductas delictivas*. Mimeo: Universidad de Bolonia, Facultad de Ciencias de la Educación.

Ruíz-Ramírez, R., García-Cué, J. L., Ruíz Martínez, F., & Ruíz Martínez, A. (2018). La relación bullying-deserción escolar en bachilleratos rurales. *Revista electrónica de investigación educativa*, 20(2), 37-45. https://doi.org/10.24320/redie. 2018.20. 2.1527

Sabariego, J. A. (2017). Bullying y violencia en el ocio en estudiantes de secundaria. El apoyo social de los amigos. Análisis de diferencias sociodemográficas [Tesis doctoral, Universidad de Murcia]. https://bit.ly/3kmIfeC

Salguero, J., Fernández-Berrocal, P., Ruíz-Aranda, D., Castillo, R. y Palomera, R. (2011). Inteligencia Emocional y ajuste psicosocial en la adolescencia: el papel de la percepción emocional. *European Journal of Educational Psychology*, 4(2), 143-152.

Schenke, K., Lam, A.M., Conley, A., & Karabnick, S.(2015). Adolescents' help seeking in mathematics classrooms: Relations between achievement and perceived classroom environmental influences over one school year. *Contemporary Educational Psychology*, *41*, 133–146. http://dx.doi.org/10.1016/j.cedpsych.2015.01.003

Supervía, P. U., Bordás, C. S., Abad, J. J. M., Orozco, A. M., & Jarie, L. (2019). Relaciones de la inteligencia emocional, Burnout y compromiso académico con el rendimiento escolar de estudiantes adolescentes. *Archivos de Medicina (Manizales)*, 19(2). https://doi.org/10.30554/archmed.19.2.3256.2019

Tortura, C.M., Karver, M.S. & Ellis, L. (2014). Psychological Distress and Student Engagement as Mediators of the Relationship between Peer Victimization and Achievement in Middle School Youth. *Journal of Youth and adolescence*, 43(1), 40-52.

Triaka, L., & Wendt, J. L. (2022). Predictive relationship between gender, ethnicity, science self-efficacy, teacher interpersonal behaviors, and science achievement of students in a diverse urban high school. *Learning Environments Research*, 25(1), 141-157. https://doi.org/10.1007/s10984-021-09354-1

UNESCO (2019). *Migration, displacement and education. Building bridges, not walls.* Global Education Monitoring Report-GEM, UNESCO.

Van Houtte, M. (2004). Tracking effects on school achievement: A quantitative explanation in terms of the academic culture of school staff. *American Journal of Education*, *110*(4), 354-388. https://doi.org/10.1086/422790