Article

Family functioning, emotional intelligence and values: analysis of the relationship with aggressive behavior in adolescents

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Abstract: Aggressive behavior in adolescence is influenced by a diversity of individual, family and social variables. The purpose of this study was to analyze the relationship between family functioning, emotional intelligence and values for development of different types of aggression, as well as to establish profiles according to the predictor variables of aggression. To do this, a sample of 317 high school students aged 13 to 18 were administered the Peer Conflict Scale, the Family Functionality Scale, the Brief Emotional Intelligence Inventory for Senior Citizens and the Values for Adolescent Development Scales. The study showed that stress management, positive adolescent development and family functioning predominated in nonaggressive subjects with higher scores than aggressors. There was also a negative relationship between the different types of aggression and emotional intelligence, positive values and family functioning. In addition, two different profiles were found. The first had low scores on all the variables, while the second profile had higher scores on all the variables except family functioning which was higher.

Keywords: family functioning; aggressive behavior; emotional intelligence; adolescent values

1. Introduction

Violent behavior among secondary students has been identified as a serious problem in today’s educational field [1], in this sense we can find an increment in the number of researches dedicated to this topic within the scientific literature [2, 3]. At the moment, the studies conducted in several countries point that the prevalence of these behaviors among the youth has increased [4, 5], and it appears as a risk, for the students that do not show this kind of behaviors, and for the educational actions of the educational establishments [6]. Taking into account the difficulties that we can find in this context, it is necessary to know the quality of the scholar cohabitation when planning actions and creating resources [7].

1.1. Violent behavior in the school environment

In the school framework we can find patterns of violent behavior, at physical and verbal levels, and both can be split into two types: direct and indirect. A direct physical aggression refers to, for example, hitting someone, and the indirect physical aggression to stealing someone [8]. A direct verbal aggression implies the insults between the actors implicated in these situations, while speaking negatively about someone behind their backs will be considered as an indirect verbal aggression [9].

Likewise, aggressions can be classified depending on the method used to cause damage, separating the forms and the functions of the aggressive behavior [10]. As regards the forms, open aggressions manifest themselves in physical and verbal aggressive conducts, such as the threats,
hits, and the relational aggressions that damage social inclusion in a group, through actions for the
social exclusion [11]. Concerning the functions, a reactive aggression is characterized by a revenge
conduct that appears as a response to a provocation, while the proactive aggression does not need a
provocation to apply [12]. Both kinds of aggression have been investigated in both teenagers and
children at a scholar age. In the Manring, Elledge, Swails, y Vernberg study [13], for the primary level,
reactive aggression was pointed as a longitudinal predictor of the victimization among pairs, being
more frequent among girls. In the same way, individual factors are linked to the relational aggression
of girls, being this one an indicator of this type of problematic behavior [14]. Moreover, some
differences are to point with regard to the gender in the several types of aggression [15], where the
boys represented are more likely to reactive and proactive aggressions than the girls [16,17]. On the
other hand, van Hazebroek, Olthof, and Goossens [18] confirmed a higher level of reactive aggressive
behavior in the group of boys than in the groups of girls, and they did not find any difference of
gender within the proactive aggression.

The differences on the nature of aggressions depend on the profile of both the victim and the
aggressor. Jara, Casas, and Ortega-Ruiz [19] suggest that aggressors have proactive aggressive
behaviors, even when the reactive aggressions are present in the victims. Depending on the gender
of aggressors, there is no consensus about relational violence among the studies conducted. Ettekal
and Ladd [20] point the feminine group as the leader in the relational violence. Nevertheless, other
studies do not find any significant differences between men and women.

1.2. Variables related to aggressive behavior

Adolescence is a developmental period characterized by experimentation and sensations
seeking associated to impulsivity [21]. On the other hand, aggressions among teenagers are
associated to individual, academic, family and social factors [22]. Aggressive behaviors are connected
to personal and social values [23, 24]. Due to Jara et al. [19], social values have a higher scope for
aggressors than for victims, personal values are relevant for both agents, and individual values are
higher for aggressors and lower for victims. Plus, these authors underline the relationship between
being and not being part of aggressive conducts and social, personal and individual values.

Aggressive conducts are related to different variables among which we count the emotional and
the social ones [25]. In the study conducted by Zych, Beltrán-Catalán, Ortega-Ruiz, and Llorent [26],
bullying aggressors were indicated to have low levels of social and emotional competences, while the
victims of bullying achieve identical results than the students not involved. Thus, research about
emotional intelligence in victims and aggressors proves that victims present a lower emotional
intelligence, meaning that they have a lower capacity to handle stressing situations, the aggressors,
they also show low levels of emotional intelligence and a deficient stress manage [27]. At the same
time, several authors note that a bad emotional regulation is a characteristic of reactive aggressions
[28, 17].

In the scope of family dynamic, it has been confirmed that aggressive behaviors are related to
family functioning [29]. Parents represent a source of influence over the youth behavior [30, 31],
together with the peer group, since sensitive environments, where conflict reigns, critics and insults,
and lack of affection, can lead to aggressive behaviors, not linking the consequences to such behaviors
[32]. According to the studies conducted so far, the profile of parenting characterized by the use of
physical and verbal aggressions together with hostile behaviors are connected to both functions of an
aggression: reactive and proactive. In this sense, a negative parenting and a dysfunctional
atmosphere is associated to the presence of proactive and reactive aggressions [33].

In the review of the literature, it is confirmed that the connexion between the aggression
modalities and some variables such as the emotional intelligence, the values, and the family
functioning, if the rapport among them is negative [34], social and personal values are reduced [35],
and there is a higher risk of family dysfunction [36].

Nowadays, the number of studies establishing the profile of subjects relying on the modalities
of aggression is limited [37], as well as the relation between modalities and emotional intelligence,
family functioning and values.
1.3. The present study

This study analyses the relationship between emotional intelligence, development values and family functioning within the diverse modalities of aggressive behaviors. At the same time, some profiles will be drawn according to the variables predicting an aggression taking into account the diverse modalities of aggression.

Specifically, according to previous research, some hypothesis are put forward: (1) Students that result to be aggressors present a higher score in all the modalities of aggressions than the not aggressors students; (2) emotional intelligence, values and family functioning are the variables predicting the emergence of aggressive conducts in the study sample.

2. Materials and Methods

2.1. Participants

The study is based on data collected randomly by using multi-stage cluster samples. Out of 317 youth from different high schools in the province of Almería, Spain, 50.8% (n=161) were male and 49.2% (n=156) were females. Students were between 13 and 18 years old (M=14.93; DT=1.065). The average age of males was 14.85 (DT= 1.008) and 15.01 (DT= 1.119) for females. The sample was constituted by two class levels, 61.5% (n=195) belonged to tenth grade and 38.5% (n=122) belonged to eleventh grade.

2.2. Instruments

An ad hoc questionnaire collecting sociodemographic data (age, gender, grade), and some questions about the students implication on violent situations among pairs in the scholar environment was employed (do you suffer/have suffered violent episodes by your classmates?, do you exercise/have exercised violence over your classmates?, have you witnessed violence exercised over your classmates?, have you intervened when seeing someone using violence against your classmates?).

Peer Conflict Scale (PCS) [38]. The Spanish adaptation from Pérez-Fuentes et al. [39] was used. This scale evaluates the open and relational forms as well as reactive and proactive functions. It is constituted by 40 items, where a Likert-type scale made of 4 points is employed for responses (0 equals to not right at all and 3 equals to completely right). In the study of Gázquez et al. [40] an internal consistency was found for each one of the scales (physical and reactive α=0.86; physical and proactive α=0.85; reactive and relational α=0.80; proactive and relational α=0.83. In our case, the reliability for each scale was of: .81 in proactive open aggressions; .85 in open reactive aggressions; .81 in relational proactive aggressions and .78 in relational reactive aggressions. In general, the scale reliability was of α=.92.)

Family Functioning Scale (APGAR) [41]. The Spanish adaptation of the original version was used here [42]. This scale is made of 5 items, evaluating the adaptation, growth, society, affection and resolution, with three options of response (0 = hardly ever, 1 = sometimes, 2 = quite often). There are also three categories of functionality that are: severe dysfunction (0 to 3), moderate dysfunction (4 to 6) and family function (6 or more). In the study conducted by Romero-Abrio et al. [43] the reliability was of α=0.80. In our paper, Cronbach’s alpha was of .75.

Brief Emotional Intelligence Inventory for Senior Citizens (EQ-I-M20) [44]. The adaptation by Pérez-Fuentes, Gázquez, Mercader, y Molero [45] was used here since it was validated and measured on the Spanish adult population. This inventory is composed by 20 items, divided in 5 factors: Intrapersonal, Interpersonal, Stress management, Adaptability and State of mind. Responses are based on a Likert-type scale of 4 points. The original version got an adequate consistency of 0.89 [44]. In the brief version, Cronbach’s alpha was .57 for the intrapersonal factor, .80 for the interpersonal factor, .68 for the stress management, .81 for the adaptability and .83 for the state of mind. In the investigation conducted by Bermúdez, Méndez, and García-Munuera [46] the instrument reliability obtained with a Cronbach’s alpha was .89 and in every subcategory was of : α=.80 Interpersonal; .57 Intrapersonal; .68 Stress management; .81 Adaptability and .83 State of mind. For this sample the
internal consistency of the instrument was of .78, and for every sub-scale of: \( \alpha = .77 \) Intrapersonal, \( \alpha = .67 \) Interpersonal, \( \alpha = .76 \) Stress management, \( \alpha = .46 \) Adaptability and \( \alpha = .83 \) State of mind.

Escala de Valores para el Desarrollo Positivo Adolescente (EV-DPA) [47] is constituted of 24 items that evaluate the importance that youth gives to values for their positive development. Responses correspond to a scale going from 1 to 7 where 1 is “not important at all” and 7 is “the most important”. The scale is composed by three dimensions: social values, personal values, and individualist values, which obtained the following reliability levels: social values: \( \alpha = .88 \); personal values \( \alpha = .83 \) and individualist values \( \alpha = .79 \). For the general scale the Cronbach’s alpha obtained was of .91. In the research of Cortés-Morales, Valdez-Menchaca, Vázquez, and Hernández-Gutiérrez [48] the reliability of the scale was \( \alpha = .89 \).

2.3. Procedure

In the first place the responsible persons directing the secondary educational centers were contacted in order to inform them about the objectives, methodology and use of data, as well as to get their authorization. In the second place, the students were announced that the participation was based on volunteers and they were briefed with the instructions to fulfill the questionnaire. Plus, there were notified that the data was going to be collected anonymously and confidentially. Nevertheless, every participant had the possibility to give their informed consent in order to ratify the respect of the ethics in this research. The study was approved by the Bioethics Committee of the University of Almería.

2.4. Data Analyses

For the treatment and analysis of data the statistical package SPSS version 23.0 for Windows was employed.

First, a descriptive analysis is presented, and, in order to explore the relationship between the variables, analyses of bivariate correlations are performed. After that, linear regression analyses stepwise were performed. The modalities of aggression were used as dependent variables (open proactive aggression, open reactive aggression, relational proactive aggression, and relational reactive aggression). The variable used as predictors were: emotional intelligence, values for the positive teenage development and family functioning. Precisely, for the estimation of each model of regression all variables correlating with the dependent variable are included.

Finally, a two-stage sample was implemented in order to determine the diverse profiles, relying on the variables that were finally included in every regression model. After classification of groups with conclusions drawn from clusters, a comparative study of the average is performed through the Student’s \( t \)-distribution for independent samples, that enables to know the differences existing between clusters in relation to the modalities of aggression, and through the Cohen’s \( d \) for determining the size of the effect.

3. Results

3.1. Aggressive conducts in secondary compulsory education students: descriptive analysis

From the total of the sample, 13.6% \( (n=43) \) had suffered or are currently suffering episodes of violence from their classmates. On the other hand, 12.9% \( (n=41) \) have exercised or exercise some kind of violence over their classmates. 65.3% \( (n=207) \) have witnessed violent episodes between classmates.

Taking into account the distribution by the gender of the aggressors, 78% \( (n=32) \) are males and 22% \( (n=9) \) are females. In the group of victims, 55.8% \( (n=24) \) are males and 44.2% \( (n=19) \) are females.

Besides that, the average scores obtained in the total sample, for every dimension of aggression, were as follows: Open proactive aggression, \( (M=.24; \ DT=.37) \), Open reactive aggression \( (M=.55; \ DT=.54) \), Relational proactive aggression, \( (M=.22; \ DT=.35) \), and Relational reactive aggression \( (M=.30; \ DT=.37) \). As concerns the gender, there are significant differences within the open proactive aggressions \( (t_{235}=3.36; \ p<.01; \ d=.38) \), males getting higher scores \( (M=.30; \ DT=.43) \) compared to females.
For the relational proactive aggression, males \((M=27; DT=.41)\) present significantly higher values \((t_{1353}=2.38; p<.05; d=.27)\) than females \((M=18; DT=.28)\).

In the aggressor’s group, average scores are significantly higher for every modality of aggression. [Open proactive aggression \((t_{1353}=3.66; p<.01; d=.61)\); Open reactive aggression \((t_{1315}=4.58; p<.001; d=.77)\); Relation proactive aggression \((t_{1353}=3.39; p<.01; d=.57)\); Relational reactive aggression \((t_{1353}=2.40; p<.05; d=.40)\)] compared to the non aggressors group. Concerning the group of victims, they obtain a significant higher average in terms of open reactive aggression \((t_{1353}=1.99; p<.05; d=.33)\) compared to the group of non-victims.

With regards to the age of the participants, there is no correlation established in accordance to the modality of aggression analyzed here.

### 3.2. Emotional intelligence, values and family functioning: relation to the aggression

Results derived from the correlational analysis, as shown in table 1, indicate that open proactive aggression has a negative correlation with most of the emotional intelligence factors. (Intrapersonal: \(r=-.13; p<.05\); Interpersonal: \(r=-.18; p<.01\); Stress management: \(r=-.20; p<.001\); State of mind: \(r=-.15; p<.01\), social values \((r=-.26; p<.001)\), personal values \((r=-.26; p<.001)\), and family function \((r=-.20; p<.001)\).

Open reactive aggression shows negative correlations with stress management \((r=-.41; p<.001)\), social values \((r=-.17; p<.01)\), personal values \((r=-.15; p<.01)\), and family function \((r=-.17; p<.01)\).

For the relational proactive aggression, some negative correlations are also observed concerning the emotional intelligence dimensions (Intrapersonal: \(r=-.13; p<.05\); Interpersonal: \(r=-.20; p<.001\); Stress management: \(r=-.17; p<.01\), social values \((r=-.24; p<.001)\), personal values \((r=-.24; p<.001)\), and family function \((r=-.18; p<.01)\).

### Table 1. Correlation between the modalities of aggression and emotional intelligence variables, values and family function.

<table>
<thead>
<tr>
<th>Emotional Intelligence EQ-I-M20</th>
<th>Aggression PCS</th>
<th>OPAg</th>
<th>ORAg</th>
<th>RPAg</th>
<th>RRAg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrapersonal</td>
<td></td>
<td>-.13*</td>
<td>-.04</td>
<td>-.13*</td>
<td>-.08</td>
</tr>
<tr>
<td>Interpersonal</td>
<td></td>
<td>-.18**</td>
<td>-.07</td>
<td>-.20***</td>
<td>-.07</td>
</tr>
<tr>
<td>Stress management</td>
<td></td>
<td>-.20***</td>
<td>-.41***</td>
<td>-.17**</td>
<td>-.22***</td>
</tr>
<tr>
<td>Adaptability</td>
<td></td>
<td>-.01</td>
<td>.02</td>
<td>-.05</td>
<td>-.02</td>
</tr>
<tr>
<td>State of mind</td>
<td></td>
<td>-.15**</td>
<td>-.10</td>
<td>-.08</td>
<td>-.12*</td>
</tr>
<tr>
<td>Values for the positive adolescent development EV-DPA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social values</td>
<td></td>
<td>-.26***</td>
<td>-.17**</td>
<td>-.24***</td>
<td>-.12*</td>
</tr>
<tr>
<td>Personal values</td>
<td></td>
<td>-.26***</td>
<td>-.15**</td>
<td>-.24***</td>
<td>-.17**</td>
</tr>
<tr>
<td>Individualist values</td>
<td></td>
<td>.02</td>
<td>.08</td>
<td>.02</td>
<td>.09</td>
</tr>
</tbody>
</table>

| Family function APGAR       |                | -.20***| -.17**| -.18**| -.12* |

\(OPAg = \) Open proactive aggression; \(ORAg = \) Open reactive aggression; \(RPAg = \) Relation proactive aggression; \(RRAg = \) Relational reactive aggression. \(p<.05; "p<.01; ""p<.001\)

Finally, relational reactive aggression has a negative correlation with stress management \((r=-.22; p<.001)\), state of mind \((r=-.12; p<.05)\), social values \((r=-.12; p<.05)\), personal values \((r=-.17; p<.01)\), and family function \((r=-.12; p<.05)\).

Based on the results of the correlation analysis, multiple regression models are drawn for every modality of aggression, taking into account, in each case, the variables where correlations were detected and introducing them as potential predictors in1 the model.

### 3.3. Multiple linear regression model: Open proactive aggression

Due to the data obtained in table 2, the regression analyses shows 3 models where the third is the most exploitable one, with 12.7% \((R^2=.12)\) of the variance explained by the factors included in the model.
Table 2. Multiple linear regression model steps (Open proactive aggression).

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R^2$ adjusted</th>
<th>$R^2$</th>
<th>SE</th>
<th>Change in $R^2$</th>
<th>Change in $F$</th>
<th>Sig. of the change in $F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.26</td>
<td>.07</td>
<td>.06</td>
<td>.36</td>
<td>.07</td>
<td>23.54</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>.32</td>
<td>.10</td>
<td>.10</td>
<td>.35</td>
<td>.03</td>
<td>12.70</td>
<td>.000</td>
</tr>
<tr>
<td>3</td>
<td>.35</td>
<td>.12</td>
<td>.11</td>
<td>.35</td>
<td>.02</td>
<td>7.72</td>
<td>.006</td>
</tr>
</tbody>
</table>

Durbin Watson: 1.90

Table 3. Multiple linear regression model steps (Open reactive Aggression).

<table>
<thead>
<tr>
<th>Model 3</th>
<th>Unstandardized coefficients</th>
<th>Standardized coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>SE</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.85</td>
<td>.17</td>
<td>10.37</td>
<td>.000</td>
</tr>
<tr>
<td>Stress management</td>
<td>-.26</td>
<td>.03</td>
<td>-.41</td>
<td>-8.28</td>
</tr>
<tr>
<td>Family function</td>
<td>-.03</td>
<td>.01</td>
<td>-.13</td>
<td>-2.59</td>
</tr>
<tr>
<td>Personal values</td>
<td>-.07</td>
<td>.02</td>
<td>-.13</td>
<td>-2.59</td>
</tr>
</tbody>
</table>

Collinearity

<table>
<thead>
<tr>
<th></th>
<th>Collinearity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tol.</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.99</td>
</tr>
<tr>
<td>Stress management</td>
<td>.99</td>
</tr>
<tr>
<td>Family function</td>
<td>.96</td>
</tr>
<tr>
<td>Personal values</td>
<td>.96</td>
</tr>
</tbody>
</table>

In order to confirm the validity of the model, the independence of the residues was analyzed. The D statistic of Durbin-Watson obtains a value $D=1.90$, which confirms the absence of positive and negative correlation. Plus, $t$ value is associated to an error probability inferior to 0.05 in all the variables included in the model (social values, stress management and family function). On the other hand, standardized coefficients reveal that the variable presenting a higher explicative weight is social values. Finally, the absence of collinearity among the variables included in the model is assumed due to the high values obtained for the tolerance indicators and the low values for the VIF.

3.4. Multiple linear regression model: Open reactive aggression

In table 3, the regression analysis shows 3 models where the last one explains 21.7% of the variance ($R^2=0.21$). The absence of correlation positive and negative is confirmed through the statistic $D$ of Durbin-Watson ($D=1.55$).
3.5. Multiple linear regression model: relational proactive aggression

Concerning the relational proactive aggression, due to the data collected in Table 4, the regression analysis results in 4 models, where the fourth one is the one with the highest explicative capacity with 12.2% ($R^2=.12$) of the variance explained by the factors included in the model.

Table 4. Multiple linear regression model steps (relational proactive aggression).

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>$R^2$ corrected</th>
<th>$R^2$</th>
<th>SE</th>
<th>Change in $R^2$</th>
<th>Change in $F$</th>
<th>Sig. F</th>
<th>Change in Durbin–Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.24</td>
<td>.06</td>
<td>.05</td>
<td>.34</td>
<td>.06</td>
<td>20.28</td>
<td>.000</td>
<td>1.96</td>
</tr>
<tr>
<td>2</td>
<td>.29</td>
<td>.08</td>
<td>.08</td>
<td>.34</td>
<td>.02</td>
<td>9.44</td>
<td>.002</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>.32</td>
<td>.10</td>
<td>.09</td>
<td>.34</td>
<td>.01</td>
<td>6.72</td>
<td>.010</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>.34</td>
<td>.12</td>
<td>.11</td>
<td>.33</td>
<td>.01</td>
<td>5.23</td>
<td>.023</td>
<td></td>
</tr>
</tbody>
</table>

Model 4

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized coefficients</th>
<th>Standardized coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.04</td>
<td>.12</td>
<td></td>
<td>8.08</td>
<td>.000</td>
</tr>
<tr>
<td>Social Values</td>
<td>-0.04</td>
<td>.01</td>
<td>-0.15</td>
<td>-2.58</td>
<td>.010</td>
</tr>
<tr>
<td>Stress management</td>
<td>-0.07</td>
<td>.02</td>
<td>-0.18</td>
<td>-3.37</td>
<td>.001</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>-0.08</td>
<td>.03</td>
<td>-0.14</td>
<td>-2.46</td>
<td>.014</td>
</tr>
<tr>
<td>Familiar function</td>
<td>-0.01</td>
<td>.00</td>
<td>-0.12</td>
<td>-2.28</td>
<td>.023</td>
</tr>
</tbody>
</table>

In order to confirm the validity of the model, the independence of the data residue were analyzed. The Durbin–Watson statistic obtains the value $D=1.96$, which confirms the absence of positive and negative correlation. Plus, $t$ value is associated to an error probability inferior to 0.05 in all the variables included in the model. On the other hand, standardized coefficients reveal that the variables presenting a higher explicative weight are stress management and social values. Finally, the absence of collinearity among the variables included in the model is assumed due to the high values obtained for the tolerance indicators and the low values for the VIF.

3.6. Multiple linear regression model: relational reactive aggression

In Table 5, the regression analysis shows 2 models where the last one explains 8.1% of the variance ($R^2=.08$) through the statistic Durbin–Watson statistic ($D=1.55$). The value of $t$ is associated to an error probability inferior to .05 within all the varieties included in the model: stress management and personal values. Standardized coefficients reveal that the variable showing the highest power of prediction for the relational reactive aggression is stress management. The absence of collinearity is confirmed with values obtained in the indicators of Tolerance and VIF.
Table 5. Multiple linear regression model steps (relational reactive aggression).

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R^2$</th>
<th>$R^2$ adjusted</th>
<th>SE</th>
<th>Cambio en $R^2$</th>
<th>Cambio en $F$</th>
<th>Sig. $F$ Change</th>
<th>Durbin Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.22</td>
<td>.05</td>
<td>.04</td>
<td>.36</td>
<td>.05</td>
<td>16.40</td>
<td>.000</td>
<td>1.91</td>
</tr>
<tr>
<td>2</td>
<td>.28</td>
<td>.08</td>
<td>.07</td>
<td>.36</td>
<td>.03</td>
<td>10.69</td>
<td>.001</td>
<td></td>
</tr>
</tbody>
</table>

Model 2

<table>
<thead>
<tr>
<th>Unstandardized coefficients</th>
<th>Standardized coefficients</th>
<th>$t$</th>
<th>Sig.</th>
<th>Collinearity</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress management</td>
<td>-.09</td>
<td>.02</td>
<td>-.22</td>
<td>.000</td>
</tr>
<tr>
<td>Personal values</td>
<td>-.06</td>
<td>.02</td>
<td>-.17</td>
<td>.001</td>
</tr>
</tbody>
</table>

3.7. Profiles drawn from the predictive variables of aggression and modalities of aggression

For the formation of groups, an analysis of a cluster in two stages was performed including the variables from the multiple linear regression models previously presented (family function, social values, personal values, stress management and interpersonal factor). For the cluster construction, family function variable is chosen as the categorized variable, this means that results from 0 to 3 points are considered as severe dysfunction, from 4 to 6 moderate dysfunction, and from 7 to 10 high function. In this case, family function is the predictor with the highest relevance in the construction of clusters. (Figure 1).

From the inclusion of these variables two groups emerge (Figure 1) with the following distribution: 30.6% ($n=97$) of the subjects belong to cluster 1 and 69.4% ($n=220$) to cluster 2. In Table 6 there is a summary of the average scores of the analyzed variables, for the total sample as well as for each cluster separately.

Table 6. Average scores for the total sample and clusters

<table>
<thead>
<tr>
<th></th>
<th>Total sample ($N=317$)</th>
<th>Cluster 1 ($n=97$)</th>
<th>Cluster 2 ($n=220$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family function</td>
<td>$M=7.44 (DT=2.32)$</td>
<td>$M=4.51 (DT=1.65)$</td>
<td>$M=8.73 (DT=1.05)$</td>
</tr>
<tr>
<td>Personal values</td>
<td>$M=5.38 (DT=1.02)$</td>
<td>$M=5.15 (DT=1.15)$</td>
<td>$M=5.48 (DT=.94)$</td>
</tr>
<tr>
<td>Social values</td>
<td>$M=4.89 (DT=1.16)$</td>
<td>$M=4.67 (DT=1.26)$</td>
<td>$M=4.98 (DT=1.11)$</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>$M=2.94 (DT=.59)$</td>
<td>$M=2.89 (DT=.63)$</td>
<td>$M=2.97 (DT=.58)$</td>
</tr>
<tr>
<td>Stress management</td>
<td>$M=2.59 (DT=.85)$</td>
<td>$M=2.63 (DT=1.01)$</td>
<td>$M=2.57 (DT=.78)$</td>
</tr>
</tbody>
</table>

The first group resulting from the conglomerate analysis (cluster 1), is characterized by showing a low-moderate family function, inferior average scores in personal values and social values compared to the results for the total sample, and similar scores to the average of the sample in interpersonal and stress management factors. Meanwhile, the second cluster, with a high family function, shows superior average scores in personal and social values compared to the results of the total samples, and similar scores to the average of the sample in interpersonal and stress management factors.

After the classification of the groups through the clusters solution, a t-test was performed for independent samples, with the aim of deducting the differences existing between the clusters with respect to each one of the modalities of aggression. Significant differences between the clusters are noted for the open proactive aggression ($t_{(315)}=2.22; p<.05; d=.27$), cluster 1 ($M=.31; DT=.44$) showing...
higher scores than cluster 2 ($M=.20; DT=.33$). There are no other significant differences between clusters for the rest of the modalities of aggression.

<table>
<thead>
<tr>
<th>Cluster 1</th>
<th>Cluster 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Familiar functioning</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Personal values</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Social values</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Interpersonal</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Stress management</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 1.** Composition of clusters. Note. Factors ordered by the importance of entry.

**4. Discussion**

Aggressive conducts are present within the adolescent stage and their prevalence increases during the last years [1, 3]. In this sense, the outcome of this study shows the percentages of students suffering of having suffered violent episodes by their peers, and those of the ones exercising or having exercised violence over their classmates. Even if this percentages are not too high, they go in line with...
those of Crespo-Ramos et al. [4] and can be explained by the difference of size in the sample. Concerning the gender of aggressors, the percentage of males is significantly higher in accordance with other studies where the highest results belong to the male group [16, 17]. By contrast, for Manring et al. [13], whose study was performed at primary school level, female obtain the highest scores. However, within the group of victims there were no significant differences.

Concerning the gender, scores have been significantly different only for open proactive aggressions and relational proactive aggressions, in both, males get higher results than females in the same line than Rieffe et al. [17] where youth reaches high percentages in proactive and reactive aggression, but in contrast to the results of van Hazebroek et al. [18] where the reactive aggression is the predominant among males, and in proactive aggressions there was no significant difference noted. Regarding the figure of the victim and the figure of the aggressor depending on the scales of aggressions, the group of aggressors shows significantly higher average scores in all scales than the group of non-aggressors as in other studies where aggressors show proactive aggressive conducts [19, 20]. On the other hand, the victims obtained higher scores for the open reactive aggression.

The correlation between the modalities of aggression and the variables of emotional intelligence, values and family function showed a negative relation since the higher levels of aggressiveness, the lower levels of emotional intelligence [28, 34], personal and social values are also reduced and there is a higher risk of family disfunction [33, 36].

Multiple linear regression analyses showed that open and relational proactive aggressions can be predicted or explained by social values, stress management and family function, including the interpersonal dimension in the relational proactive aggression. Concerning the open and relational reactive aggressions, the dimension highlighted are stress management and personal values. Plus, on the first type family function was included. These results are in line to other studies where the reactive aggression open and relational are characterized by a low stress management and a bad emotional regulation [26, 28]. Finally, in accordance with the variables of prediction (family function, personal values, social values, interpersonal stress management) two profiles of subjects and the differences in the modalities of aggression arise. In this sense, similar studies establish profiles of subjects depending on the type of aggression [37].

5. Conclusions

The findings of this study reveal the relationship between all the analyzed variables, and among these, which aspects are to take into account when intervening or developing an analytical tool, since not all of them predict every modality of aggression. Nevertheless, the size of the sample is one of the limitations of this study, if in future investigations the sample was extended, we could confirm if the variables explaining aggressive conducts of youth are the same or not. Plus, concerning the family function, it would be interesting to analyze if the presence of aggressive behaviors is due to the antecedents of the family function or to its consequences, since the current scientific literature is not clear about this point. In summary, it is important to conduct this type of studies for establishing a protocol of intervention, because this way, we can intervene face to an established profile and face to previously determined aspects.

Author Contributions: M.d.M.M.J., M.d.C.P.F., and A.B.B.M. contributed to the conception and design of the review. J.J.G.L. applied the search strategy. All authors applied the selection criteria. All authors completed the assessment of risk of bias. All authors analyzed and interpreted data. M.d.M.M.J., M.d.C.P.F. and A.B.B.M., wrote this manuscript. M.d.C.P.F. and J.J.G.L. edited this manuscript. M.d.M.M.J. is responsible for the overall project.

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Conflicts of Interest: The authors declare no conflict of interest.
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