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## Teachers' and students' perception about cyberbullying. Intervention and coping strategies in primary and secondary Education

### Percepción de docentes y estudiantes sobre el ciberacoso. Estrategias de intervención y afrontamiento en Educación Primaria y Secundaria

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### Abstract

Currently, schools face the challenge of dealing with the phenomena of cyberbullying, which is increasingly present among teenagers. This study analyses teachers' and students' perception of the problem, as well as the strategies that both groups use to avoid it. Its findings will allow advances in prevention and intervention in the schools. The study was conducted on 1704 primary and secondary school students and 238 teachers who completed questionnaires about cyberbullying. We used a cross-sectional descriptive method. Findings show significant differences in the motives teachers attributed to cyberbullying. These depend on the educational stage they work in, whereas, among students, it depends on the role they have in the cyberbullying: victim or aggressor. We also find differences in the intervention strategies used by teachers, depending on the type of school, educational stage, and gender. Those used the most are communicating, mediating and seeking help. For students, the predominate strategies are avoidance, protection, and reporting. Schoolchildren, in general, show little confidence in their teachers' ability to solve the problem of cyberbullying. The study highlights the importance of training teachers and providing them with action models when faced with this issue, and it points out the necessity of coordinating the efforts of both teachers and students.

### Resumen

Actualmente los centros educativos tienen el reto de enfrentarse al fenómeno del ciberacoso, cada vez más presente entre los adolescentes. El presente estudio analiza la percepción del profesorado y del alumnado y las estrategias que ambos colectivos utilizan para afrontarlo. Su conocimiento permitirá avanzar en su



prevención e intervención en las aulas. El estudio se realizó con 1.704 estudiantes de educación primaria, secundaria y 238 profesores a los que se aplicaron sendos cuestionarios sobre ciberacoso. Se utilizó un método descriptivo y transversal. Los resultados muestran diferencias significativas en las causas que el profesorado atribuye al ciberacoso según la etapa educativa donde ejerza la docencia, apareciendo en el alumnado según el rol que adopta en la situación de acoso: víctima o acosador. También se encuentran diferencias en las estrategias de intervención utilizadas por el profesorado, según la titularidad del centro, la etapa educativa y el sexo, siendo las más empleadas comunicar, mediar y buscar ayuda; en el alumnado predominan las estrategias de evitación, protección y denuncia. Los escolares en general muestran escasa confianza en el profesorado para resolver el problema del ciberacoso. Se concluye exponiendo la importancia de dotar al profesorado de formación específica y de modelos de actuación ante este fenómeno, y señalando la necesidad de coordinar los esfuerzos de docentes y estudiantes.

## Keywords / Palabras clave

Cyberbullying, perception, teachers, students, intervention strategies, coping strategies, primary education, secondary education.

Ciberacoso, percepción, profesorado, alumnado, estrategias de intervención, estrategias de afrontamiento, educación primaria, educación secundaria.

## 1. Introduction

The widespread use of ICT (information and communication technologies) among young people reveals risks such as cyberbullying, access to inappropriate content and internet addiction (Nocentini, Zambuto, & Menesini, 2015). Different investigations show the close relationship between dependency behaviours to social networks and certain antisocial behaviours, such as cyberbullying (Martínez & Moreno, 2017; Muñoz & al., 2016). The latter is understood to be a type of abuse exercised through electronic means of communication (Olweus & Limber, 2018) characterized by its intention to harm, endurance over time and imbalance of power between the parties due to the greater technological competence of the aggressors. In addition, it presents its characteristics such as access to a wider audience, greater durability of the aggressions, the ability to generate exclusion of the victims and anonymity of the aggressor (Martínez-Otero, 2017).

In schools, cyberbullying is an important educational and social concern due to the serious consequences it has on mental (Estévez, Jiménez, & Moreno, 2018) and psychosocial health (Smith & al., 2008), as well as on the academic performance of those involved (Egeberg, Thorvaldsen, & Ronning, 2016), especially in students who simultaneously adopt the role of aggressor and victim (Arnaiz, Cerezo, Giménez, & Maquilón, 2016, Giménez, 2015, Giumetti & Kowalski, 2016). In Spain, studies indicate an average prevalence of around 15.5% (Garaigordobil, 2015, Zych, Ortega-Ruiz, & Del Rey, 2015). The data is still lower than in the United States and other Spanish-speaking countries (Kowalski, Giumetti, Schroeder, & Lattanner, 2014), though no less alarming. To provide an appropriate response to the problem, we must start with the opinions that both teachers and students have about this form of bullying and their behaviour when faced with it.

### 1.1. The Perception of teachers and students concerning cyberbullying

Studies on cyberbullying allow for an increasingly accurate view of its characteristics and prevalence (Zych & al., 2015). According to the testimony and opinion of the victims themselves, the reasons why they are being harassed are due to variables related to a personal characteristic, such as physical appearance, which make them an easy target, or the economic situation of their family. On the other hand, those associated with the aggressors are jealousy, envy or feelings of superiority (Jacobs, Goossens, Dehue, Völlink, & Lechner, 2015).

Regarding intervention, on the part of the teachers, some studies highlight the most common strategies: "offer support to the victims", "seek help from other colleagues", "involve the parents" or "talk with the students" (Desmet & al., 2015). Stauffer (2011) found that teachers principally inform



the school's management team about the bullying and talk to the aggressors and victims themselves. Despite the strategies, which are implemented in some cases, the majority of the teachers point out the lack of specific intervention training (Cerezo & Rubio, 2017), and also training to detect cyberbullying even when it affects students in their classrooms (Montoro & Ballesteros, 2016). In this sense, what is required is greater involvement, specific training and intervention by teachers (Bevilacqua & al., 2017; Styron, Bonner, Styron, Bridgeforth, & Martin, 2016), as well as planned teacher training in order to be able to face with cyberbullying (Nocentini & al., 2015). However, it is important to recognize the efforts of teachers and institutions in preventing and intervening in bullying (Nocentini & al., 2015), even if the results are still limited. We should consider if we are applying programs that depart from the analysis of specific situations and do not take into account how schoolchildren confront bullying, as some studies suggest (Romera, Cano, García, & Ortega, 2016), since the way young people deal with these situations determines the extent of their seriousness (Jacobs, Dehue, Völlink, & Lechner, 2014). You can define coping strategies as the effort used to reduce or tolerate the demands that occur in a situation of stress. Among the strategies that influence the responses, the most frequently cited are age, the ability to express emotions and school policies (Jacobs & al., 2014). Among the most effective responses which stand out are actions such as blocking the aggressor, confronting them or seeking help within the family, from teachers or other peers, were considered as being more effective than technical efforts (blocking contacts, increasing privacy in the network) (Orel, Campbell, Wozencroft, Leong, & Kimpton, 2017).

The coping strategies that are adopted emerge from the situation itself because inadequate responses are seen as determinants for the cyberbullying to increase its negative effects (Parris, Varjas, Meyers, & Cutts 2012). These reflections lead us to consider the importance of understanding how young people react to these situations.

It is therefore essential to investigate the perception that teachers and students have of the scope of the problem and of the intervention and coping strategies that are needed in schools in the fight against cyberbullying.

## 1.2. Purpose and objectives

This research, intending to cover this gap in understanding, analyses the perspective that teachers and primary and secondary students have on the causes that they attribute to cyberbullying and the strategies of intervention and coping that they employ. To achieve this general purpose, the following specific objectives are proposed:

- Analyse the perception teachers have about the causal attributions of cyberbullying, globally and by educational stage and the type of school.
- Analyse the causal attributions of the students involved in cyberbullying.
- Identify the intervention strategies used by teachers, and if there exist differences according to the educational stage, type of school, and gender.
- Identify the coping strategies of students facing cyberbullying.

## 2. Material and method

### 2.1. Participants

Taking into account that the at-risk age of cyberbullying is between 12 and 16 years old (Giumetti & Kowalski, 2016; Martínez-Otero, 2017), which coincides with the sixth grade of primary school and the whole of secondary education, a population of 96.524 students was evaluated distributed among the 6th grade of Primary (n=16.811, 17.4%), key stage 3 and 4 (n=65158, 67.5%), with an average age of 13.8 years (SD=2.03), of which 50.7% were boys. In the present study, 1.704 students from 38 state and private schools within the Region of Murcia (Spain) participated, consisting of the 6th year of primary education (29.3%) and compulsory secondary education (61.1%). Similarly, 238



professors (59.7% women) between the ages of 26 and 61 years old participated ( $M=43.58$ ,  $SD=9.12$ ), 35.7% being teachers in primary education and 64.3% in secondary education. It was based on a multistage sampling. First, a selection of schools was made according to the population criteria and willingness to participate and according to the type of the school, state school and state-aided / private school. Secondly, the selection of the groups was made based on the judgment of the teaching staff at the school, trying to include all the educational stages under study.

## 2.2. Instruments

Studies on cyber-aggression among schoolchildren usually use the self-report (Zych & al., 2015). This work follows this practice. To identify the teachers' perception about cyberbullying, a self-report questionnaire validated by five university experts was designed. The reliability of the complete instrument was  $\alpha=.84$ . From this questionnaire, data were extracted from subscales referring to causes attributed to cyberbullying (11 items,  $\alpha=.65$ ), the perception of intervention strategies at the school level (12 items,  $\alpha=.69$ ), and intervention strategies developed by teachers (16 items,  $\alpha=.88$ ). The causes attributed to cyberbullying were assessed with a Likert-type scale with five response categories from the lowest to the highest level of agreement (1=in total disagreement, 5=totally agree). Some of the items included were: the aggressor is to blame; because the aggressor feels provoked; and because the aggressor enjoys it. The interventions of the school were assessed with the same Likert scale. The subscale on teacher intervention strategies was evaluated with a Likert scale of four categories (1=never and 4=always).

To identify the students' perception and their coping characteristics, the "Cyberbull" Questionnaire for students was used (Giménez, 2015) based on the Daphne de Calmaestra questionnaire (2011). Its elaboration required two Delphi rounds of expert judgment. The questionnaire consists of five aspects/measurements: the relationship of the students with TIC; experiences of school bullying; experiences of cyberbullying; student coping strategies and bullying and cyberbullying bystanders. In this work, the questions used only referred to the causes of cyberbullying according to those involved as victims and aggressors and to coping strategies. To understand the causal attributions in cyber-victimization and cyber-aggression, those involved were asked about the reasons which led them to carry out the bullying (6 items,  $\alpha=.64$ ) or to receive it (6 items,  $\alpha=.43$ ), with answers evaluated with a Likert scale with five frequency categories (1=never and 5=always). Examples of questions for the aggressor: because it amuses me; because I like it; because I feel important; and for the victim: because they enjoy it; because I am weaker; and because they feel superior. Coping strategies were evaluated by the open question: What would you do to confront cyberbullying? The students were urged to specify all kinds of responses whether negative, positive, seeking help, etc. Finally, socio-demographic data (age, gender, and educational stage) were included.

## 2.3. Process

The participation of the schools was sought from the management teams by telephone. Those who gave their consent were sent the questionnaires by registered post for the teaching staff to complete anonymously. In the case of the students, authorization was obtained from their mother/father/guardian, and a session of between 20-30 minutes was established for its completion. During the sessions, a teacher and a member of the study's research team were always present.

## 2.4. Design and data analysis

This research follows a descriptive and transversal design. For the analysis of the data, descriptive statistics (percentages, mean, typical deviation) and inferential statistics (parametric and non-parametric) were used. Given the categorical nature of the variables and the measurement values of the agreement level, the Pearson Chi square statistic was chosen for the contrast of proportions and the level of statistical significance, using Cramer's V to assess the magnitude of the statistically



significant associations.

With respect to the intervention strategies, the comparison of groups among teachers: type (state / private), educational level (primary / secondary) and gender (male/female), the Student's t-statistic was used to check the normality and homoscedasticity criteria. As for the students involved (aggressors and victims), the non-parametric Mann Whitney U test was applied for the comparison of two groups. The data were analysed with the statistical package SPSS 21.0.

For the qualitative analysis of coping strategies, the students' responses were codified and categorized, grouping them into positive (assertive and seeking help) and negative (confrontation with the aggressor and passivity) strategies. This categorical classification follows the proposal suggested by De-la-Caba and López (2013).

### 3. Results

#### 3.1. Causes attributed by teachers to cyberbullying

Among the reasons that teachers attribute to the existence of cyberbullying (Table 1) stand out, with the highest level of agreement: the aggressor is to blame (44.1%); power imbalance between aggressors and victims (33.7%); and the enjoyment the aggressor gains in carrying out the harassment (22.6). Among the lesser considered causes ("in total disagreement"), we find the victim guilty (54.1%) and think that it happens because of the provocation of the victim (41.9%).

	Totally disagree	Disagree	Irrelevant	Agree	Totally agree
Victim guilty	54.1%	36.3%	7%	2.2%	0.4%
Aggressor guilty	3%	2.2%	7.8%	43%	44.1%
Victim provokes the aggressor	41.9%	38.5%	17%	1.5%	1.1%
Aggressor felt provoked	13%	18.5%	21.1%	35.2%	12.2%
Characteristics of the victim	7.4%	16.7%	20.7%	43%	12.2%
Characteristics of the aggressor	4.8%	10%	17.8%	45.6%	21.9%
Passivity of bystanders	4.4%	16.3%	23%	41.5%	14.8%
Fun	3%	4.8%	16.3%	53.3%	22.6%
Power Imbalance	3.3%	1.5%	9.6%	51.9%	33.7%
Racist motives	11.5%	26.3%	33.3%	26.7%	2.2%
Homophobic motives	14.1%	26.7%	31.1%	24.8%	3.3%

Analysis of the mean differences indicates that the teachers surveyed display a certain lack of awareness in their attribution of the causes of cyberbullying ( $M=3.17$ ,  $SD=0.47$ ) since the maximum value of the scale is 5.00 points.

Significant differences were found in favour of teachers in state schools ( $M=3.23$ ,  $SD=0.43$ ) compared to those in private schools ( $M=3.08$ ,  $SD=0.51$ ) ( $t(236)=2.352$ ,  $p=.019$ ). By items, state school teachers are more likely to believe that cyberbullying is due to racist motives (36.7%), compared to private schools (18.2%) ( $\chi^2(2, n=238)=15.85$ ,  $p=.003$ ,  $V=.258$ ); and to homophobia (34.7%), compared to private (17%) ( $\chi^2(2, n=238)=13.28$ ,  $p=.010$ ,  $V=.236$ ).

The analyses also indicate differences by educational stage. Secondary school teachers show greater agreement that cyberbullying is due to the victim provoking the aggressor (85.7%) compared to 70.5% of primary school teachers (5.9%) ( $\chi^2(2, n=238)=11.95$ ,  $p=.018$ ,  $V=.224$ ). On the other hand, primary school teachers more strongly agree (61.2%) that cyberbullying is due to the victim's characteristics compared to their secondary school colleagues (49.6%) ( $\chi^2(2, n=238)=9.83$ ,  $p=.043$ ,  $V=.023$ ).



### 3.2. Causes attributed by the students involved in cyberbullying

For the analysis of the causes attributed to cyberbullying, responses were selected from those students who were previously identified as aggressors ( $n=51$ , 2.7%) and as victims ( $n=132$ , 6.9%), opting for basic descriptive analysis (Table 2). From the perspective of the victims, the main reasons for which they are harassed are due to the aggressor enjoying doing it ( $M=2.79$ ,  $SD=1.52$ ) and because they feel superior ( $M=2.70$ ,  $DT=1.63$ ).

Analysing the responses of the student victims, we found that there are significant differences by educational stage. Victims in secondary education attribute cyberbullying to a greater extent than primary schools, to the superiority of the aggressor ( $\chi^2=34.48$ ,  $p=.000$ ), envy ( $\chi^2=6.99$ ,  $p=.030$ ) and enjoyment ( $\chi^2=16.20$ ,  $p=.000$ ). Primary students attribute it to a greater extent to revenge ( $\chi^2=38.23$ ,  $p=.000$ ). Only statistically significant differences were found between men ( $M=1.53$ ,  $SD=0.78$ ) and women ( $M=1.27$ ,  $SD=0.61$ ) in envy ( $U=1749.50$ , (72, 61),  $Z=-2.195$ ,  $p=.028$ ). Analysing the responses of the aggressor students, we found that the main reason for the harassment is the victim's weakness ( $M=2.92$ ,  $SD=1.60$ ) followed by retaliating to aggressions previously suffered ( $M=2.72$ ,  $DT=1.61$ ). Significant differences were also found by gender, with boys indicating to a greater extent the weakness of the victim ( $U=165.00$ , (30, 19),  $Z=-2.767$ ,  $p=.006$ ), enjoyment ( $U=190.00$ , (29, 20),  $Z=-2.174$ ,  $p=.030$ ) and superiority ( $U=182.00$ , (29, 20),  $Z=-2.541$ ,  $p=.011$ ).

	Victims M(DT)	Aggressors M (DT)
Fun	2.79(1.52)	2.58(1.56)
Superiority	2.70(1.63)	2.35(1.56)
Weakness	1.97(1.28)	2.92(1.60)
Envy	1.99(1.26)	1.47(0.90)
Revenge	1.83(1.31)	2.72(1.61)
Intolerance	1.60(1.52)	2.33(1.41)

### 3.3. Intervention strategies of the teaching staff

#### 3.3.1. Intervention strategies in the school

The actions that offer the highest level of agreement among the entire teaching staff (see Table 3) are: teachers and students working together on the subject (59.7%); establishing sanctions (59.3%) and implementing actions from the school coexistence plan (40.7%). Interesting data are those provided by the items "the teacher is trained" and "aware", which show the lowest levels of agreement, mainly in ongoing training.

Differences are evident in the type of the school. Teachers in private schools consider themselves to be more capable of dealing with cyberbullying than those in state schools [ $\chi^2(2, n=236)=26.67$ ,  $p<.000$ ,  $V=.336$ ]. However, those from state schools have a higher level of agreement that this problem is dealt with in the classroom ( $\chi^2(2, n=237)=12.66$ ,  $p=.002$ ,  $V=.231$ ). They also point out to a greater extent that the counselling department should take care of this issue ( $\chi^2(2, n=238)=6.59$ ,  $p=.037$ ,  $V=.166$ ).

The analysis by gender shows that men have a greater level of agreement in establishing sanctions against aggressors ( $\chi^2(2, n=232)=8.15$ ,  $p=.017$ ,  $V=.187$ ). The women believe that the management of cyberbullying is the responsibility of the counselling department / Education Welfare Service (EWS) [ $\chi^2(2, n=233)=9.09$ ,  $p=.011$ ,  $V=.197$ ], and that what is established in the School Coexistence Plan must be put in action ( $\chi^2(2, n=233)=10.67$ ,  $p=.005$ ,  $V=.214$ ). By educational stage, the differences were not significant in any case.



**Table 3. Intervention strategies at the school level**

	Totally disagree	Disagree	Indifferent	Agree	Totally agree
It's difficult to prevent and combat	6.7%	24.4%	15.9%	35.6%	17.4%
Implementation of School Coexistence Plan	-	3.3%	9.6%	46.3%	40.7%
Management training	1.1%	5.9%	16.3%	44.4%	32.2%
Training students in mediation	0.4%	0.7%	9.3%	43.7%	45.9%
Responsibility of EWS /Counselling department	3%	11.5%	26.7%	40%	18.9%
Establish sanctions	0.7%	0.4%	3.3%	35.9%	59.3%
Implement action protocols	7.8%	6.3%	14.8%	37.4%	33.7%
Deal with cyberbullying in tutorial sessions	10.7%	8.5%	13%	45.2%	22.6%
Deal with cyberbullying in class	10%	7.8%	20%	44.8%	17.4%
Teachers and students working together	-	0.7%	4.1%	35.2%	59.7%
Teachers are trained	6.7%	36.3%	19.3%	31.1%	6.3%
Teaching staff are mindful	1.1%	6.3%	12.2%	45.9%	34.4%

### 3.3.2. Teacher intervention strategies

Among the strategies used by teachers (see Table 4), communication strategies deserve special mention. With a frequency of "always", cyberbullying is reported to the management team (73.9%), and to a lesser extent, to the Counselling Department (49.2%). With somewhat lower percentages, they communicate with the family (48.1%) and talk to those involved (aggressors, 39.5%, victims, 47.1%). Conversely, a considerable percentage of teachers "never" contact the police (66.1%), and in no, or few cases do they use existing specific resources, implement the School Coexistence Plan or seek external help.

Differences were found according to the type of the school, gender, and educational stage. Private schools employ strategies such as: dialogue with the family ( $p=.016$ ), communication of the incident to the school counsellor or school coexistence team ( $p<.000$ ), self-education on the subject ( $p=.002$ ), implementation of the school coexistence plan ( $p=.025$ ), and the use of specific resources for the prevention of cyberbullying ( $p=.028$ ). Teachers in state schools more frequently seek support and help from other colleagues ( $p=.018$ ).

The analyses by gender indicate that males are more indifferent ( $p<.000$ ) compared to women who use other strategies, such as reorganizing the classroom ( $p<.000$ ), informing the management team of the incident ( $p=.043$ ), educating themselves about the subject ( $p=.030$ ), having discussions in class and during other activities ( $p=.046$ ), and implementing the school coexistence plan ( $p=.031$ ). According to the educational stage, only significant differences appear in favour of secondary school teachers who, most frequently, report cyberbullying to the school counsellor ( $t(236)=-5.023, p<.000$ ). Primary teachers use mediation more as a resource than secondary teachers ( $t(236)=3.368, p<.001$ ).

**Table 4. Intervention strategies of the teaching staff (\* $p\leq.05$ ; \*\* $p\leq.01$ )**

	Never (%)	Sometimes (%)	Often (%)	Always (%)	Type of school	Gender
					$t_{(n)} \cdot p$	$t_{(n)} \cdot p$
Contact with the police	66.4%	21%	8.4%	4.2%		
Use of specific resources	21%	29.4%	37.8%	11.8%	-2.213 <sub>(236)</sub> , $p=.028^*$	
Use of school coexistence plan	13.9%	19.3%	43.6%	23.2%	-2.263 <sub>(236)</sub> , $p=.025^*$	-2.168 <sub>(231)</sub> , $p=.031^*$
Have discussions and activities	11.3%	28.2%	40.8%	19.7%		2.005 <sub>(231)</sub> , $p=.046^*$
Seek external help	21%	23.5%	38.6%	16.9%		
Self-training	8%	21%	42.8%	28.2%	-3.163 <sub>(236)</sub> , $p=.002^*$	-2.190 <sub>(231)</sub> , $p=.030^*$
Seek help from other teachers	3.8%	7.6%	39.1%	49.5%	-3.253 <sub>(236)</sub> , $p=.018^*$	
Inform EWS /Counselling Department	12.6%	10.1%	28.1%	49.2%	3.543 <sub>(236)</sub> , $p\leq.000^{**}$	
Inform the management team	-	1.7%	24.4%	73.9%		-2.030 <sub>(231)</sub> , $p=.043^*$
Dialogue with the family	5.8%	12.9%	33.2%	48.1%	2.430 <sub>(236)</sub> , $p=.016^*$	
Mediation	2.1%	5.5%	35.7%	56.7%		



Reorganisation of the classroom	12.6%	16.4%	50.4%	20.6%		3.544 <sub>(231)</sub> .p≤.000**
Establish sanctions	12.2%	16.9%	40.1%	30.8%		
Dialogue with the victim	2.9%	11.3%	38.7%	47.1%		
Dialogue with the aggressor	3.9%	17.6%	39%	39.5%		
Display indifference	90.3%	7.6%	0.8%	1.3%		3.735 <sub>(231)</sub> .p≤.000**

### 3.4. Student coping strategies

The responses to the question about how to deal with cyberbullying were coded by frequency and percentage. The most notable was avoiding strangers (13.48%), followed by reporting to the police (10.56%). On the other hand, blocking the aggressor or communicating the harassment to the responsible counselor at the school is hardly mentioned (0.03%). For ease of reference, following De-la-Caba and López (2013) coping strategies were grouped into positive categories (assertive and seeking help) and negative (confronting the aggressor and passive).

#### 3.4.1. Positive strategies

As assertive strategies the students pointed out: reporting to the police (19.8%), helping / defending the victim (18.7%), talking to the aggressor (16.3%), preserving one's privacy (15.7%), do not retaliate (10.9%), restrict access to ICT (10.1%), make good use of ICT (4.5%), report (the harassment) to the social network (3%) and save the conversations (0.9%).

Differences were found by educational stage, with primary school students choosing to report to the police (23.91%), restricting access to ICT (20.4%) and reporting (the harassment) to the social network (5.1%). On the other hand, secondary students chose to defend the victim (18.5%) and talk to the aggressor (17.8%).

Among the help-seeking strategies, most students report it to their parents (41.4%), other trusted adults (36.1%), teachers (11.5%), and friends (2.3%) and the responsible school counselor (0.2%). Again differences appear by educational stage. Primary school students report cyberbullying first to parents (49.5%), second to other adults (35.6%) and lastly to teachers (8.5%). Secondary students communicate to other adults (37.7%), parents (37.6%) and teachers (12.9%).

#### 3.4.2. Negative strategies

Students differentiated between confrontation strategies and passive strategies. Among the first, the students mentioned: retaliate with cyber-bullying (69%); punishing the aggressors (33.8%); hitting the aggressor (30.4%) or excluding them (0.6%). Differences were observed by educational stage, with secondary students being the most likely to retaliate with cyber-bullying (64.1%), compared to primary school (56%).

Passive strategies include the following: avoiding strangers (46.4%); ignoring the aggressor (23.5%); restricting limit the use of TIC (28.8%); supporting anti-bullying rules protocols (13.5%); monitoring mobile phones and computers (10.3%) or doing nothing (11.4%). Again, differences appear by educational stage. Secondary students mention more the avoidance of strangers (53.7%) and doing nothing (8.7%), while those in primary school do not know what they would do, or if anything, eliminate their profile on the network (5.4%).





## 4. Discussion and conclusions

In the first place, it should be noted that the level of prevalence of cyberbullying found in the sample studied is similar to the averages found in other studies (Zynch & al., 2015).

As to the causes of cyberbullying, teachers consider the personal characteristics of the aggressor and the enjoyment of bullying as the main causes of this phenomenon (Martínez & Moreno, 2017; Monks, Mahdavi, & Rix, 2016). Likewise, the teaching staff as a whole highlight the importance of the imbalance of power between aggressors and victims (Romera & al., 2016). Differences were found according to the educational stage. Secondary teachers attribute, to a greater extent, the direct responsibility for harassment to the aggressors, while primary teachers point to the personal characteristics of the victim.

The results obtained show that most teachers attribute the causes to those involved, leaving out the classroom climate and relationship features. The differences by type of school are revealing: among teachers in state schools, racism and homophobia are identified as causes of cyberbullying, coinciding with the greater presence of foreign students. Previous research shows that students from minority groups (non-heterosexuals) and other ethnic groups are exposed to higher levels of cyberbullying when compared to those who are not involved and heterosexual students (Abreu & Kenny, 2017; Llorent, Ortega, & Zych, 2016).

Regarding the perception of the students, according to the aggressors and the victims, the main cause of cyberbullying is the enjoyment that the harassment arouses. To a lesser extent, attributing the blame to the aggressor and the victim, the results coincide with previous studies (Calmaestra, 2011; Giménez, 2015). Boys indicate envy more than girls. We find that when a student harasses another, they try to justify this act by also blaming the object of their bullying. On the other hand, from the perspective of the victim, the aggressors are responsible for the bullying (Jacobs & al., 2015). This data should be taken into account when initiating an intervention with those involved since it is necessary for the change of attitudes and cognitive attribution of the aggressors.

Relating to the strategies of intervention in the school, slightly more than half of the teachers emphasise teachers and students working together on the problem, and also point out the necessity of implementing the school coexistence plan. This reflects the concern and lack of effective measures available, which strengthen the option of establishing sanctions. The latter is a response mentioned frequently. It is certainly necessary to create a regulation that facilitates the school coexistence framework, which cannot be limited to a list of offenses and sanctions (Cerezo & Rubio, 2017), but rather effective solution strategies are needed. These strategies need to be adapted to the needs detected in the schools. It is important to mention the differences found between teachers in state and private schools, the former being the ones that most indicate their need for training and the benefits of carrying out prevention in the classroom. Regarding intervention strategies used by teachers, in the private schools, communication with the school's management team, counsellors and the police is highlighted; and in state schools, the search for support from other colleagues stands out. Primary teachers intervene more than teachers in secondary schools, perhaps because of their closeness to the students. It has been found that women are more involved than men in finding solutions.

The victims usually communicate incidents to their families, and to a lesser extent to their teachers. This indicates distrust in their teachers' ability to resolve the problem. It is essential to consider how the teachers' attitudes, as well as specific actions in the organization of the classroom and improvements in school coexistence, can have a positive effect on the prevention and reduction of cyberbullying (Montoro & Ballesteros, 2016; Styron & al., 2016). However, the students do not see it that way. In this respect, Perren and others (2012) highlight parental mediation of Internet use, the support of peers, empowering the leadership skills of students and developing initiatives that embrace the entire educational community as more effective measures for preventing cyberbullying. Recent research confirms the need to unite the efforts of teachers and parents to ensure supervision and control of the Internet, which are key elements in reducing the risk of cyberbullying (Monks & al, 2016).



Regarding the strategies proposed by the students, those of avoidance / protection and reporting to the police stand out as the immediate steps taken. Intervention to defend the victim and the search for help are scarcely indicated, thus maintaining the victim's defencelessness (Estévez & al., 2018), remain priorities to combat it (Jacobs & al., 2014). In addition, communication facilitates the instigation of immediate action measures, either by alerting the family or the school (Perren & al., 2012). Schoolchildren point out the importance of parental help (Monks & al., 2016) and scarcely that of teachers and friends, which is different from other studies that position friends in the first place (De-la-Caba & López, 2013). It should be noted that the School Counselling Service is hardly taken into account. In this way, the field of Educational Guidance remains largely unaware of this problem, despite the importance of school counsellors and psychologists in the evaluation, prevention, and intervention in cyberbullying.

Comparing intervention strategies of the teachers with those of students, we find that both groups agree on seeking help (DeSmet & Bourdeaudhuij, 2015), to communicate harassment (Perren & al., 2012) and to report it to the police; although to a very limited degree, which coincides with other studies which indicate that teachers are more inclined to refer cyberbullying to their management team, and to talk to the victim or the aggressor than to communicate with the family (Stauffer, 2011). Another point of coincidence is the option for sanctioning the aggressors; this can be caused by the lack of adequate resources for the improvement of school coexistence and the lack of specific attention to those affected. In the case of students, it is striking that teachers are an underused resource, which suggests the limited perception students have of the ability of their teachers to resolve conflicts, an essential element to be taken into account for the improvement of these situations (Abreu & Kenny, 2017).

Finally, we want to point out that although we are making progress in raising awareness of the consequences of cyberbullying (Egeberg & al., 2016; Giménez, 2015), it is necessary to provide teachers with action models to help with prevention and intervention in their classrooms (Bevilacqua & al., 2017). As Romera and others (2016) affirm, teachers and counsellors, require training and clear action models to manage groups of students, work on the improvement of the classroom atmosphere, the development of social activities, the analysis of classroom relations and in the establishment of interpersonal links. Only by understanding the teachers' and students' perception of the problem will it be possible to lay the foundations for its effective detection, prevention, and intervention. Acting on this problem and facilitating the students understanding of the risks of this phenomenon, so that they collaborate in its eradication, is the responsibility of the entire educational community. This study has highlighted the importance of this perspective.

This work presents some limitations. Thus, the number of participating teachers and the sample belonging to the same geographical area limits the generalization of results. Another limitation is related to the information collection instrument given that it is a self-report, it is difficult to control the social desirability bias. In future research, these aspects will be taken into account, and not only will the students' coping strategies be analysed, but also the effectiveness of them in order to set out recommendations for intervention. In addition, we will look more deeply into the relationship between the measures adopted by the school and the teaching staff and the effective coping strategies of the students.

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