The emotional responses of victims of cyberbullying: Worry and indifference

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**Background.** Research has shown that the specific emotional consequences of bullying for victims are different depending on the type of bullying that they experience and certain personal characteristics of the victims. Some victims are negatively affected, whereas others report indifference. The specific factors involved in these responses are not yet clear.

**Aims.** The study analysed the emotional consequences of cyberbullying for victims. It examined the relationship between background variables (age and gender), victimisation variables (duration of aggression and victim role, victim vs. bully/victim), individual variables (peer self-esteem, perceived support of parents and friends, and coping strategies used) and the different profiles of emotional consequences.

**Sample.** Participants were 1671 students (48.7% girls) aged 12 to 17 years from the 1st and 3rd year of Compulsory Secondary School and the 1st year of High School from schools in Córdoba (Spain). From this sample, 70 were identified as cyber mobile phone victims and 124 as cyber internet victims.

**Method.** A self-report instrument, the DAPHNE Questionnaire (Genta et al., 2012), was used. The questionnaire pack included some pre-existing questionnaires and some new items on the key variables of interest, plus demographic information.

**Results.** Variables that helped to predict the emotional consequences of cyberbullying for victims included: gender, peer self-esteem, parental support and loneliness with friends for cyberbullying via mobile phone and only peer self-esteem for cyberbullying via the internet. In addition, some coping strategies were different according to the emotional profile of the victim for both kinds of cyberbullying.

**Conclusions.** Results suggest that the emotional impact of cyberbullying on the victim depends on some individual variables but also on the type of cyberbullying. The interpretation that a person makes about the cyberbullying that they experience may be important in determining the emotional consequences suffered. Further research is required to disentangle factors that could help pupils avoid the potentially negative emotional consequences of cyberbullying.

**Keywords.** Cyberbullying, emotions, victimisation, ICT.

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It has only been during the last decade that research has begun to focus on cyberbullying, and the research literature is now growing rapidly in this area. Smith et al. (2008) defined cyberbullying as an aggressive and intentional behaviour using electronic means which is repeated over time, that can be carried out by an individual or a group, and which leaves the victim unable to easily defend him/herself. The electronic means that distinguish cyberbullying from ‘traditional’ bullying are usually mobile phones or the internet. Cyberbullying can include behaviours such as making menacing phone calls, sending nasty SMS or MMS messages, and harassment in chat rooms, via email, in online games, on websites (including social networking sites) and in blogs (Rivers, Chesney & Coyne, 2011).

Research has indicated the extent to which adolescents report experiencing cyberbullying via the internet (Williams & Guerra, 2007) and via mobile phone (Kowalski & Limber, 2007). Some research has suggested that the level of cyberbullying may be rising (e.g. Noret & Rivers, 2006; Wolak, Mitchell & Finkelhor, 2006). In a large sample of middle-school pupils in the United States aged between 11 and 14 years, Kowalski and Limber (2007) found that 11% self-identified as cybervictims, 4% as cyberbullies and nearly 7% as cyberbully/victims. Ortega, Calmaestra and Mora-Merchán (2008) found that about a quarter of Spanish pupils aged 12 to 16 years were victims of cyberbullying. In a later study, the same authors found that there was a peak in the prevalence of victims of cyberbullying between the ages of 14 and 15 years (Calmaestra, Ortega, Maldonado & Mora-Merchán, 2010).

Looking at young people’s perceptions of cyberbullying, Agaston, Kowalski and Limber (2007), using a qualitative study employing focus groups, found that pupils often viewed cyberbullying as a problem. Other studies have confirmed that pupils report it as being as upsetting as traditional forms of bullying (Monks, Ortega, Robinson & Worlidge, 2009; Smith et al., 2008).

Although cyberbullying has elements in common with traditional bullying, there are important differences. If the harassment occurs in a virtual environment it may be open to view by a very large audience, and may, therefore, have more social repercussions for the victim, for example, posting videos of the victim in degrading situations. In contrast, the scenario may also be very intimate, for example, menacing messages sent via SMS or MMS or in chat-rooms may only involve the victim and his/her aggressor. The duration of the harassment may also differ, something may be posted on the internet only once, but the aggression may be seen as continuing indefinitely if it is not taken down or is spread around by others, and the aggressor him/herself may actually lose control of the situation. Furthermore, the identity of the aggressor may be hidden which may lead to the victim feeling even more vulnerable.

However, it is important to note that the physical injury caused by physical aggression and face-to-face confrontation is not present in cyberbullying. In fact, Mishna, Saini and Solomon (2009) have suggested that cyberbullying may be more ‘hidden’ than traditional forms of bullying. So, while Whitney and Smith, (1993) have found that a third of victims of traditional bullying have told no-one, Mishna et al., (2009) suggest that this may be even higher among the victims of cyberbullying. In particular they found that young people were reluctant to tell parents about being cyberbullied as they were concerned that their parents might stop them from accessing the Internet or take away their mobile phones in order to protect them. To them, this would be tantamount to punishment. However, out of all these differences between traditional direct bullying and cyberbullying, we suggest that one of the most important differences may be the emotional impact that cyberbullying has on victims.

**The reading and management of emotions in response to cyberbullying**

Research has focused attention on the role of emotions (expression, perception, comprehension and/or regulation) as correlates and/or possible predictors of victimisation (Garner & Lemerise,
2007; Kelly, Schwartz, Gorman & Nakamoto, 2008; Lemerise, Gregory & Fredstrom, 2005; Schwartz, Proctor & Chien, 2001; Wilton, Craig & Pepler, 2000). Numerous studies note that bullying may have a variety of negative psychological effects on the victims (Carney, 2000; Graham & Juvonen, 2001; Hawker & Boulton, 2000; Kochenderfer-Ladd & Wardrop, 2001; Schafer, et al., 2004). However, only a few studies have been carried out to examine the specific emotional reactions of victims of bullying and cyberbullying (i.e. Borg, 1998; Ortega, Elipe & Calmaestra, 2009). Borg (1998) examined the emotional reactions of victims of bullying and found that 38% of pupils felt vengeful, 37% felt angry, 37% felt sorry for themselves, 24% felt helpless and 25% were indifferent. Ortega, Elipe and Calmaestra (2009) compared the emotions of cybervictims with cyberbully/victims (cybervictims who are also cyberaggressors). In general, the proportion of non-bullying victims who felt negative emotions in response to being cyberbullied was higher than for bully/victims: felt bad (43% of victims and 17% of bully/victims), angry (35% of both types of victim), sad (21% of victims and 3% of bully/victims), or not affected (20% of victims, 46% of bully/victims). These results could be better understood from a theoretical perspective such as Transactional Coping Theory (Lazarus & Folkman, 1984). From this perspective, it is proposed that how a person deals with a stressful situation, such as bullying or cyberbullying, does not depend exclusively on the event but on the value that it is given. So, the same event could be perceived in a different way by different people and, thus, generate different reactions (Borg, 1998; Catterson & Hunter, 2010; Ortega, Elipe, Mora-Merchán, Calmaestra & Vega, 2009).

The questions that arise from this are: which factors are responsible for the differences between the ways in which people perceive and respond to cyberbullying? Why are some people deeply affected whereas others are able to deal with the situation and solve it without being negatively affected? Although we still do not have a conclusive answer to these questions, some authors have found that certain characteristics seem to be related to the emotional consequences of cyberbullying. These characteristic could be categorised as those within the person (individual variables) and those related to the event itself (victimisation variables).

Among the individual variables that could mediate the emotional consequences of bullying are some background variables, such as gender and age, and some affective aspects such as self-esteem (referred to as SE from now on) and perceptions of social support. Also, certain coping strategies have been found to be related to the emotional impact felt by the victim. However, the direction of the relationship is not clear given that although coping happens once people have lived the event, and therefore have felt emotions, the kind of coping strategy used could have consequences for, or even change, the emotional impact of the bullying. In fact, Folkman and Moskowitz (2000) pointed out that this issue of whether coping affects emotions or emotions affect coping depends on what we are interested in. So, if we want to reduce the emotional impact, coping should be considered as a predictor of emotions, but if our focus is on behaviour in response to aggression, then we should consider emotions as predictors of coping.

(a) Gender and age: Research has shown that the consequences of bullying on the victim are different for boys and girls. Boys tend to have more externalising problems, such as antisocial behaviour, and girls more internalising symptoms, such as depression, anxiety and emotional symptoms (Nabuzoka, Rønning & Handegård, 2009). Nabuzoka and colleagues proposed that the relationship between victimisation and internalising problems in girls could reflect differences in the nature of bullying experienced by girls and boys. Hawker and Boulton (2001) found relationships between verbal and indirect (relational) bullying and internalising difficulties. This kind of bullying could make it more difficult for the victim to know how to respond. However, other studies have found that internalising problems function as both antecedents and consequences of peer victimisation (Reijntjes, Kamphuis, Prinzie & Telch,
2010). In terms of cyberbullying in particular, age is especially relevant in relation to use of information and communication technologies (ICT). Across adolescence the use of ICT to establish and maintain relationships with other people increases (European Commission, 2008). This fact, could imply a change in the importance given to situations that happen through these means.

(b) **Self-esteem:** There is an established literature linking poor SE with victimisation (Hawker & Boulton, 2001; Karatzias, Power & Swanson, 2002; O’Moore & Kirkham, 2001; Rigby & Slee, 1993; Salmivalli, Kaukiainen, Kaistianiemi & Lagerspetz 1999; Salmon, James & Smith, 1998; Slee & Rigby, 1993). Egan and Perry (1998), in a longitudinal study, found that low SE is both a risk factor and a consequence of victimisation, playing a central role in a vicious circle of victimisation. This was especially important when self-regard was assessed in terms of self-perceived social competence. Initial low SE may mean that individuals are more likely to expect and accept bullying from their peers and the experience of being bullied may diminish this further.

(c) **Loneliness and social support:** Victimisation may also be related to levels of social support available or perceived by individuals. Loneliness is a very consistent correlate of victimisation, regardless of age or type of measurement used (see Hawker & Boulton, 2001; Kochenderfer-Ladd & Wardrop, 2001). Research has found that friendships can provide a positive protective function against bullying (Boulton, Trueman, Chau, Whitehand & Amatya, 1999; Hodges, Boivin, Vitaro & Bukowski, 1999), particularly when the friend is in a position to be able to defend you from bullying. Schmidt and Bagwell (2007) found that friendship quality acted as a buffer against the effects of bullying (such as internalizing) for girls.

(d) **Coping strategies used:** A number of studies have shown that there is a relationship between the emotional impact of victimisation and the strategies that victims use to defend themselves from aggression (Egan & Todorov, 2009; Folkman & Moskowitz, 2000; Hunter & Borg, 2006; Hunter, Boyle & Warden, 2004; Lazarus, 1999). However, as noted above, the direction of this relationship is not clear. So, whereas Hunter and colleagues found that negative emotions help to predict the use of help seeking as a coping strategy, Egan and Todorov proposed that forgiveness could act as an effective coping strategy replacing negative emotions caused by bullying with other positive feelings.

One of the most important factors related to the impact of victimisation on the recipient is the duration of the aggression experienced. Those who are bullied more extensively usually show more numerous and more severe symptoms. When aggression continues over a period of months, it can have extremely damaging effects on the mental health of victims (Aluede, Adeleke, Omoike & Afen-Akpaiada, 2008; Due et al., 2005; Dyer & Teggart, 2007).

Another variable which could be related to the emotional impact of victimization is the role taken in bullying or cyberbullying. From the very earliest studies on bullying it was clear that not all victims played the same role in the phenomenon. It is possible to distinguish between ‘pure or passive victims’, victims who receive the aggression vs. ‘bully-victims’, those who receive aggression but, at the same time, bully others. These two profiles have shown important differences in some aspects, overall regarding emotional regulation (Schwatz et al., 2001). Bully-victims are usually more ‘maladjusted’ than pure victims and are more similar to aggressors in some aspects, for example, minimising the emotional impact of aggression on victims (Kokkinos & Panayiotou, 2004; Ortega, Elipe & Calmaestra, 2009; Wolke, Woods, Bloomfield & Karstadt, 2000). So, it is important to analyse whether these groups behave in the same way in relation to the emotional impact that aggression has on them.

We have presented some research that indicates that there are certain variables which are related to the emotional impact victimisation has on the recipient. In this exploratory study we
examined variables which we thought might be useful to differentiate between affected and unaffected victims of cyberbullying. Specifically, we analysed the importance of age, gender, SE, perceived social support of parents and friends, duration of aggression and victim role in distinguishing between affected and unaffected victims of cyberbullying via mobile phone and cyberbullying via the internet. In addition, we analysed whether there were differences in the types of coping strategies used related to each emotional profile.

Method

Participants
The original sample was 1755 students from seven secondary schools in Córdoba (Spain). Once schools were chosen, the questionnaire was distributed to all students in every class at each of the educational levels included in the study. Of the total questionnaires collected, 4.9% were excluded due to inconsistent/incomplete responses, leaving a final sample of 1671 adolescents (48.7% females) from three educational levels/ages: 1st year of Compulsory Secondary Education ($N=539; M=12.34 \text{ years old}; SD=0.64; 44.2\% \text{ girls}$), 3rd year of Compulsory Secondary Education ($N=534; M=14.44; SD=0.72; 49.9\% \text{ girls}$) and 1st year of High School ($N=598; M=16.35; SD=0.61; 51.5\% \text{ girls}$). From this sample, 70 were identified as cyber mobile phone victims and 124 as cyber internet victims.

Instruments
The instrument used was a Spanish translation of the DAPHNE Questionnaire\(^1\), which is a self-report questionnaire, composed in part of pre-existing questionnaires and other new measures (for more detailed information on the full questionnaire see Brighi et al., 2012, and Genta et al., 2012). Specifically, the information used in this paper was:

(a) Cyberbullying: The ‘About bullying and cyberbullying’ section collected information, through multiple-choice questions, about five areas: students’ access to ICT, direct bullying, indirect bullying, cyberbullying via mobile phone and via the Internet. In this paper we only provide information about cyberbullying.

● Role played: To obtain the role taken by individuals in cyberbullying, via mobile phone and the internet, we used the information from the following questions (separate questions for mobile phone and the internet): ‘Have you ever been bullied via mobile phone (or the internet) in the last two months?’ And ‘Have you ever bullied someone via mobile phone (or the internet) in the last two months?’ The response options were: ‘I haven’t bullied/been bullied in the last two months’, ‘Once or twice’, ‘Two or three times a month’, ‘Once a week’, ‘Several times per week’. People who said that they had been bullied once or twice or more frequently, but responded that they had not bullied others were considered to be victims; people who said that they had been bullied and had bullied others at least once or twice, were considered to be bully-victims.

● Duration of the aggression: The information about the duration of episodes was collected from the responses to these questions: ‘If you have been bullied via mobile phone (or the internet) in the last two months, how long did it go on for?’ The response options were: ‘I haven’t been bullied’, ‘Once or two weeks’, ‘About a month’, ‘About six months’, ‘About a year’ or ‘Several years’.

● Coping strategy used: The questions about coping were: ‘What did you do when you were bullied via mobile phone (or the internet) in the last two months?’ The response options

\(^1\) This questionnaire was developed within the framework of the project ‘An investigation into forms of peer-peer bullying at school in pre-adolescent and adolescent groups: new instruments and prevention strategies’.
included: ‘I’ve never been bullied in the last two months’; ‘I felt helpless’ (not included in the current analysis given that it is considered to be an emotion); ‘I ignored what was happening and waiting for it to stop’; ‘Turned my mobile phone off/I stopped using the internet’; ‘Told a friend’; ‘Told a teacher’; ‘Told my parent’; ‘Asked the bully to stop sending me text messages or calling me/ cyberbullying me through the internet’; Blocked the text messages or calls/blacked the person who was cyberbullying me’; ‘Changed my mobile phone number/ (no analogous answer in this case to internet)’; ‘Reported it to the mobile phone company and told them the details of the person who was cyberbullying me/reported the bully to the internet service provider and told them about the cyberbullying’; ‘Tried to bully them back’; ‘Other (please state)’ (not included in the analysis). The participants could choose more than one option.

● Emotional impact: The emotional impact profile was obtained from a cluster analysis developed in a previous study. The variables entered in the cluster analysis to obtain these profiles were the answers to the questions: ‘How did you feel when you were bullied … over the last two months?’ This question was asked, separately, for cyberbullying via mobile phone and via the internet. In all cases the participant could choose one or more of the following options, either ‘I haven’t been bullied over the last two months’ or from a range of responses including ‘Embarrassed’, ‘Worried’, ‘Upset’, ‘Afraid and scared’, ‘Alone and isolated’, ‘Fearless, no one can do anything for me’, ‘Depressed’, ‘Stressed, tense’, ‘Not bothered’, ‘Angry’ or ‘Other (please state)’. The last option was not included in the cluster analysis. Two different clusters were obtained which, once analysed, we called affected victims and not bothered victims (also called indifferent victims). The first cluster was composed of victims who reported experiencing different negative emotions and the second was composed of victims who mainly reported not being bothered by the aggression. The profiles were not identical for cyberbullying via mobile phone and via the internet, but in both cases, the main characteristics were similar (for more details see Ortega, Elipe, Mora-Merchán et al., 2009).

(b) Self-esteem: A modified Spanish version of the Self-Esteem Questionnaire (SEQ; Melotti & Passini, 2002) (18 items) was used which includes five self-esteem factors plus a global dimension. However, in this study we were only interested in SE related to peers. It is composed of three items: ‘I’m as good as I want to be at making new friends’, ‘I’m as popular among people of my own age as I want to be’, ‘I feel good about how well I get along with other people of my own age’. Responses were rated on a four-point Likert scale from 1 (Strongly disagree) to 4 (Strongly agree). Cronbach’s alpha for this subscale was 0.65.

(c) Perceived social support: A modified Spanish version of the Louvain Loneliness Scale for Children and Adolescents (LLCA; Marcoen, Goossens & Caes, 1987) (12 items) was used. Two subscales were included: loneliness with parents (i.e. my parents make time to pay attention to me) and with friends (i.e. I feel left out by my friends). The scores of the parents subscale are reverse coded. Responses were rated on a four-point Likert scale from 1 (Never) to 4 (Often). Cronbach’s alphas were 0.79 on the parents subscale and 0.77 on the friends subscale.

In addition, background information (including gender and age) was collected.

Procedure
Schools/colleges were approached via the headteacher to request permission for the study to take place within their school/college. After obtaining the appropriate consent (parents and teachers), the questionnaire was handed out during class sessions. Anonymity and voluntary participation were emphasised. The concepts of bullying and cyberbullying were explained to pupils using the definition on the questionnaire (see Genta et al., 2012). The average time needed to complete the questionnaire was about 45 minutes. The data were collected between January and May of 2008.
Data analysis
A logistic regression was used to analyse the relationship between the specific emotional profile (affected or indifferent victims) and the following variables: sex, age, victim role (victim vs. bully-victim), duration of aggression, peer SE and perceived social support (parents and friends). Given that there was no specific hypothesis about the importance of these variables in relation to emotional impact, the method used to enter variables was forced entry. Prior to analysis, the continuous variables, SE and social support, were transformed into Z scores in order to facilitate the interpretation of the results. The categories of duration of aggression were recoded into two levels, ‘one or two weeks’ and ‘a month or more’ because of the small number of people who reported ‘six months or more’.

To analyse the relationship between the emotional impact of cyberbullying and the coping strategies employed by victims, two proportion $z$ tests were used. The $z$ tests enabled a comparison to be made between the proportion of affected and indifferent victims who reported using, or not, each coping strategy. Bonferroni correction was used to determine the level of significance because multiple comparisons were made.

Results
(a) Emotional profiles
Seventy pupils (4.3%) reported being victims of cyberbullying via mobile phone. However, only 67 were included in the cluster analysis because of some missing data in the emotional variables. Of these pupils, 33 (49.3%), were in the ‘affected’ cluster and the rest in the cluster that we have called ‘indifferent’ (people who said that they were not bothered). The number of victims of cyberbullying via the internet was almost double, 124 (7.5%). Due to incomplete data, 1 case was excluded from the cluster analysis. From the remaining 123, 71 (57.7%), were in the ‘affected’ cluster and the rest in the ‘indifferent’ group.

As we have pointed out, we classified a person as a victim according to their responses to the items about cyberbullying via mobile phone and/or via the internet. There were 20 pupils (1.2% of the total sample) who were victims of both kinds of cyberbullying. These participants were assigned to an emotional profile category separately for each type of cyberbullying (via mobile and via the internet) depending on their responses to the questionnaire. Thus, it was possible that a person may be considered to be ‘affected’ by one kind of cyberbullying and ‘indifferent’ in the other. We checked for this possibility and we found that 12 of those 20 participants who experienced cyberbullying of both kinds were in the same cluster for both types of cyberbullying (specifically, four indifferent and eight affected). The remaining eight participants were in a different cluster for each type of cyberbullying. We decided to include them in the analysis given that they were answering in relation to different types of cyberbullying.

Figure 1 shows the percentage of ‘affected’ and ‘indifferent’ victims who reported feeling each emotion included in the questionnaire. The most commonly chosen emotions by ‘affected’ victims, both via mobile phone and via the internet, were angry and worried, as well as stressed in the case of cyberbullying via the internet and upset for cyberbullying via mobile phone.

(b) Predicting emotional profiles: gender, age, SE, social support, victim role and duration of the aggression.
The variables previously cited were entered into a logistic regression for each type of cyberbullying. In cyberbullying via mobile phone the regression was computed on 57 victims because of missing data in variables entered as predictors.

As we can see in Table 1, the variables which helped to predict the emotional profile of cyber mobile victims were gender, peer SE and loneliness with parents and friends.
As can be seen from Table 1, girls were more than seven times more likely than boys to be ‘affected’ victims; lower SE in relation to peers increased the likelihood of feeling affected; support from parents increased the likelihood of being an affected victim, whereas loneliness with friends increased the likelihood of feeling affected. The relationship between peer relations and feeling affected was stronger than that found between parental support and feeling affected. The Cox and Snell pseudo R squared, which shows the strength of the association between predictors and dependent variable, was .46 and the Nagelkerke coefficient was .61. The goodness of fit of this model, assessed through the Hosmer and Lemeshow test, was good ($\chi^2[8]=3.21, p>.05$). The model could correctly classify 84.2% of the victims, and the relationship between the predicted and observed group was significant ($\chi^2[1]=26.69, p<.01$).

In cyberbullying via the internet the regression was run on 106 victims. In this case, only SE in relation to peers was significant regarding the victim’s emotional profile; people with lower SE were more likely to report being affected by cyberbullying (see Table 2). The Cox and Snell pseudo R squared was .15 and the Nagelkerke coefficient was .20. The Hosmer and Lemeshow test showed the goodness of fit of the model ($\chi^2[8]=5.13, p=.74$). The model correctly classified 66.0% of the victims. The relationship between the predicted and observed group was also significant ($\chi^2[1]=8.19, p<.01$).

### Table 1. Logistic regression of cyberbullying via mobile telephone.

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>O.R.</th>
<th>95% C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (1)</td>
<td>2.053</td>
<td>0.969</td>
<td>4.486</td>
<td>1</td>
<td>.034</td>
<td>7.791</td>
<td>1.166–52.076</td>
</tr>
<tr>
<td>Age</td>
<td>0.471</td>
<td>0.336</td>
<td>1.967</td>
<td>1</td>
<td>.161</td>
<td>1.601</td>
<td>0.829–3.090</td>
</tr>
<tr>
<td>SE Peers</td>
<td>-1.017</td>
<td>0.478</td>
<td>4.532</td>
<td>1</td>
<td>.033</td>
<td>0.362</td>
<td>0.142–0.922</td>
</tr>
<tr>
<td>Loneliness parents</td>
<td>-1.052</td>
<td>0.465</td>
<td>5.120</td>
<td>1</td>
<td>.024</td>
<td>0.349</td>
<td>0.140–0.869</td>
</tr>
<tr>
<td>Loneliness friends</td>
<td>0.960</td>
<td>0.432</td>
<td>4.939</td>
<td>1</td>
<td>.026</td>
<td>2.611</td>
<td>1.120–6.085</td>
</tr>
<tr>
<td>Victim role (2)</td>
<td>-1.918</td>
<td>1.046</td>
<td>3.361</td>
<td>1</td>
<td>.067</td>
<td>0.147</td>
<td>0.019–1.142</td>
</tr>
<tr>
<td>Duration (3)</td>
<td>-0.034</td>
<td>0.868</td>
<td>0.002</td>
<td>1</td>
<td>.969</td>
<td>0.967</td>
<td>0.176–5.299</td>
</tr>
<tr>
<td>Constant</td>
<td>-8.472</td>
<td>5.110</td>
<td>2.748</td>
<td>1</td>
<td>.097</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

(1) Girls; (2) Bully-victim; (3) About a month or more.
Figures 2 and 3 show the percentage of victims who reported using the different coping strategies for cyberbullying via mobile phone and via the internet respectively. The most commonly reported strategy was to ignore what was happening and the least often reported method was to tell a teacher. For cyberbullying via mobile phone, no one reported the incident to the phone company.

The proportion of victims who reported using each coping strategy in the 'affected' and 'indifferent' groups was compared. The results showed significant differences in the use of some strategies. For both types of cyberbullying, there was a significantly higher proportion of 'affected' victims than 'indifferent' victims who told a friend ($\chi^2_{\text{Mobile phone}} [1, N=66]=5.41, p<.05, 48.5\%$ 'affected' vs. 21.2\% 'indifferent'; $\chi^2_{\text{Internet}} [1, N=115]=10.28, p<.01, 30.3\%$ 'affected' vs. 6.1\% 'indifferent' victims). There were also more 'affected' victims of cyberbullying through the internet than 'indifferent' victims (25.8\% vs. 6.1\%), who reported asking the bully to stop ($\chi^2 [1, N=115]=7.55, p<.01$), whereas a higher number of 'indifferent' victims than 'affected' victims (28.6\% vs. 12.1\%) tried to bully them back ($\chi^2 [1, N=115]=4.92, p<.05$).

Although it was not appropriate to do statistical comparisons in some cases due to small cell sizes, it is important to note that 15.2\% of 'affected' mobile phone victims reported changing their phone number, compared to none of the 'indifferent' victims. Furthermore, 7.6\% of 'affected' internet victims said that they had stopped using the internet, compared to none of those who were 'indifferent'.

**Discussion**

The results showed that some individual variables could help to predict the emotional impact of cyberbullying on cyber victims. Specifically, the variables which predicted that a person would feel affected by cyberbullying were: gender (to be a girl), peer SE (lower), parental support and loneliness with friends. However, this was only true for cyber mobile phone victims. In the case of internet victims, only peer SE was useful in predicting emotional impact. To interpret these results we need to point out that when the data for the current study was collected, the use of smart phones (mobile phones with internet access) was not as widespread as it is now. Currently, mobile phone and internet use are closely related. However, at the point at which this study was conducted this was not the case. Therefore, within this study we looked at cyberbullying via mobile phone and the internet separately and would argue that interaction using these electronic means of communication would differ prior to the widespread introduction of mobile phones with internet connection. Thus, within the current study we would consider interaction via mobile phone as being 'more direct' in nature, and interaction via the internet as 'more mediated'. The reasoning behind this is that communication via mobile phone is almost instantaneous (i.e. you receive a SMS and you see it immediately) whereas communication via the internet is a more 'mediated' means (you need to switch on your computer, to look for a webpage, read or watch its content and then to interpret this content).

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**Table 2. Logistic regression of cyberbullying via the internet.**

<table>
<thead>
<tr>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>O.R.</th>
<th>95% C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (1)</td>
<td>0.711</td>
<td>0.447</td>
<td>2.534</td>
<td>1</td>
<td>0.111</td>
<td>2.037</td>
</tr>
<tr>
<td>Age</td>
<td>-0.025</td>
<td>0.136</td>
<td>0.034</td>
<td>1</td>
<td>0.853</td>
<td>0.975</td>
</tr>
<tr>
<td>SE Peers</td>
<td>-0.664</td>
<td>0.256</td>
<td>6.742</td>
<td>1</td>
<td>0.009</td>
<td>0.515</td>
</tr>
<tr>
<td>Loneliness parents</td>
<td>-0.047</td>
<td>0.173</td>
<td>0.073</td>
<td>1</td>
<td>0.786</td>
<td>0.954</td>
</tr>
<tr>
<td>Loneliness friends</td>
<td>-0.091</td>
<td>0.205</td>
<td>0.197</td>
<td>1</td>
<td>0.657</td>
<td>0.913</td>
</tr>
<tr>
<td>Victim role (2)</td>
<td>-0.958</td>
<td>0.538</td>
<td>3.165</td>
<td>1</td>
<td>0.075</td>
<td>0.384</td>
</tr>
<tr>
<td>Duration (3)</td>
<td>0.168</td>
<td>0.594</td>
<td>0.079</td>
<td>1</td>
<td>0.778</td>
<td>1.182</td>
</tr>
<tr>
<td>Constant</td>
<td>0.502</td>
<td>2.039</td>
<td>0.061</td>
<td>1</td>
<td>0.805</td>
<td>1.652</td>
</tr>
</tbody>
</table>

(1) Girls; (2) Bully-victim; (3) About a month or more.

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**Coping strategies used by victims with different emotional profiles**

Figures 2 and 3 show the percentage of victims who reported using the different coping strategies for cyberbullying via mobile phone and via the internet respectively. The most commonly reported strategy was to ignore what was happening and the least often reported method was to tell a teacher. For cyberbullying via mobile phone, no one reported the incident to the phone company.

The proportion of victims who reported using each coping strategy in the ‘affected’ and ‘indifferent’ groups was compared. The results showed significant differences in the use of some strategies. For both types of cyberbullying, there was a significantly higher proportion of ‘affected’ victims than ‘indifferent’ victims who told a friend ($\chi^2_{\text{Mobile phone}} [1, N=66]=5.41, p<.05, 48.5\%$ ‘affected’ vs. 21.2\% ‘indifferent’; $\chi^2_{\text{Internet}} [1, N=115]=10.28, p<.01, 30.3\%$ ‘affected’ vs. 6.1\% ‘indifferent’ victims). There were also more ‘affected’ victims of cyberbullying through the internet than ‘indifferent’ victims (25.8\% vs. 6.1\%), who reported asking the bully to stop ($\chi^2 [1, N=115]=7.55, p<.01$), whereas a higher number of ‘indifferent’ victims than ‘affected’ victims (28.6\% vs. 12.1\%) tried to bully them back ($\chi^2 [1, N=115]=4.92, p<.05$).

Although it was not appropriate to do statistical comparisons in some cases due to small cell sizes, it is important to note that 15.2\% of ‘affected’ mobile phone victims reported changing their phone number, compared to none of the ‘indifferent’ victims. Furthermore, 7.6\% of ‘affected’ internet victims said that they had stopped using the internet, compared to none of those who were ‘indifferent’.
Figure 2. Percentage of victims of cyberbullying (via mobile phone) who reported using each coping strategy (N=67).

Figure 3. Percentage of victims of cyberbullying (via the internet) who reported using each coping strategy (N=123).
Furthermore, the ‘closeness’ of the perpetrator and the victim may also be important. It is possible that cyberbullying via mobile phone occurs between people who have an established relationship (people who have your phone number and with whom you are in regular contact, chatting on the phone or sending messages). In contrast, in the case of the internet, it is possible to make contact with people you have never met in ‘real-life’. Thus, our hypothesis is that the important thing is the interpretation that the person makes about what it is happening, which partially depends on their relationship with their aggressor. The results presented in the current study are similar to findings from previous research which indicated that the emotional impact of cyberbullying on victims was similar to the emotional impact of indirect traditional bullying on victims. This similarity between the emotional impact of indirect traditional bullying was particularly marked for internet cyberbullying, whereas the emotional impact of mobile phone cyberbullying also showed some commonalities with the emotional effects of traditional direct bullying (Ortega, Elipe, Mora-Merchán et al., 2009). This confirms that we should consider these as distinct phenomena, although with a common base (Ortega & Mora-Merchán, 2000, 2008).

Gender was strongly associated with the emotional consequences of cyberbullying via mobile phone, with girls being more likely to feel affected than boys. This result is in accord with previous research indicating that girls are more emotionally affected by bullying and exhibit more internalising problems. Nabuzoka et al. (2009) suggested that this may be related to the kinds of bullying that they experience or maybe it is related to the importance given to certain behaviours by girls. Thelwall (2008) has suggested that girls place more importance on social contacts and friendships via ICT; therefore, it is possible that these episodes affect them more profoundly. Another possible explanation could be related to differential socialisation by gender; perhaps boys are more reticent to recognise, even to themselves, that they are affected by emotions, given that these are traditionally thought to be a female attribute. However, the nature of the current study did not permit an explanation of these differences.

Age did not appear to be associated with how affected an individual felt. This suggests that younger pupils are not more emotionally vulnerable than older pupils. However, the age range studied here was not very extensive and solely focused on secondary school pupils. Recent research has shown that primary school-aged pupils may report experiencing cyberbullying (Monks et al., 2009), and it would, therefore, be interesting to compare these results with the experiences of younger children.

In contrast to what was expected, none of the victimisation variables (role and duration of the aggression), appeared to be a determining factor in the emotional consequences for victims. This finding does not support previous studies, some of which found that bully-victims displayed more emotional ‘coldness’ when compared with victims (Ortega, Elipe, Mora-Merchán et al., 2009). Regarding duration, results are different to what is reported for traditional bullying, where exposure to prolonged episodes of bullying worsens the emotional impact on the victim (Aluede et al., 2008; Due et al., 2005; Dyer & Teggart, 2007). This could be interpreted in relation to the different nature that technological means introduce. So, one incident, such as putting up a humiliating picture of someone on the internet, even if it is only on display for a short time, could have very damaging consequences for the target (Mora-Merchán & Ortega, 2007). In fact, researchers are not in full agreement regarding the need for cyberaggression to be repeated to meet the definition of cyberbullying (Ortega & Calmaestra, 2011). Further research is needed regarding how behaviours are developed and understood in virtual environments.

Regarding SE, the results found in the current study support previous research which has identified SE as a risk factor and a consequence of victimisation (see Hawker & Boulton, 2001). In fact SE was the only predictor that was found to be useful in distinguishing between affected and indifferent victims for both types of cyberbullying.
Loneliness was also useful in distinguishing the emotional consequences in an unexpected way. The results show that affected cyber mobile phone victims were more likely to feel loneliness in relation to peers, which is in agreement with previous studies (Hawker & Boulton, 2001; Kochenderfer-Ladd & Wardrop, 2001) but also were more likely to feel more support from their parents. It is possible that these affected victims may be more dependent on adults given that they have poorer relationships with their peers. However, it is not possible to identify the direction of this relationship from the current study. Yet, in spite of not being very satisfied with their relationships with peers, affected victims were more likely than indifferent victims to report that they would tell a friend when they were being cyberbullied. So, it is possible that the lack of social support from peers reported by these young people is more of a perception than an objective situation. Their perceptions of poor peer relations may stem from the fact that they do have problems with some peers. As we know, loneliness does not necessarily mean a real lack of friends, but a difference between desired and current contacts.

Regarding coping strategies, the proportion of affected victims who used avoidance strategies, such as changing their mobile phone number or stopping using the internet was higher than those who were indifferent. Also, in line with results found by Hunter and colleagues, a higher proportion of affected victims told a friend what had happened (Hunter & Borg, 2006; Hunter et al., 2004). Affected victims were more likely to have reported that they had asked the bully to stop but this difference was only significant in the case of internet cyberbullying. In contrast, indifferent victims were more likely to ignore what had happened and try to bully them back (significant only in the case of internet). This could be related to the more ‘distanced’ nature of cyberbullying via the internet: it may be easier to write to someone you do not directly know and ask them to stop or try to bully them back than to do this with someone you know directly. It also seems that affected victims use more avoidance strategies those who are indifferent. Maybe, affected victims overemphasise the problem, dwelling on the issue, whereas indifferent victims might not pay a lot of attention to it or normalise it. This is in line with the predictions of Transactional Coping Theory (Lazarus & Folkman, 1984): what is important is not only what is happening, but how it is interpreted by the individual involved.

A question that comes out of this research is whether ‘indifferent’ victims are emotionally colder than affected victims, whether they deny their feelings or are more resourceful and resilient. The results appear to suggest that they may be more resourceful given that they showed higher SE and less loneliness. In addition, the finding that they report trying to bully the bully back suggests that ‘indifferent’ victims are not ‘pretending’ or giving this response as a protection mechanism, but are aware that someone is trying to bully them but do not perceive the situation as a problem which interferes with their daily lives. However, it is possible that indifference in this group of victims may stem from an inadequate perception and understanding of emotions by some, whereas for others it may reflect an optimum management of emotions or a more general resilience. We need further research in order to look at this group more closely.

This study has a number of weaknesses and limitations that need to be noted. First of all, its cross-sectional nature makes it impossible to establish any causal direction, so we are not sure if the variables that we have considered to be predictors are really predictors, consequences or both. In fact, as some studies have shown, the relationships between some of the variables examined here are not linear, or not always linear (i.e. the relationship between loneliness and social support and victimisation could be better understood from a dynamic approach, see Kochenderfer-Ladd & Wardrop, 1999). Another limitation comes from the type of instrument used; self-report. A multi-informant approach, including also peer and teacher reports could increase the reliability of the data. But maybe the most important limitation, in relation to conclusion, is related to the dynamic and constantly changing nature of the phenomenon that we are studying; cyberbullying.
Research in this area is developing rapidly in response to the fast-paced changes that are going on within ICT and further research is needed to continue to examine our interactions through these media. In addition, research needs to focus on looking at, not only the types of bullying or cyberbullying an individual experiences, but also how he/she interprets these experiences in order to attempt to better understand the emotional impact of bullying and cyberbullying.

In summary, the present study illustrates the important interfaces between individual characteristics, the specific type of cyberbullying experienced and the emotional impact of victimisation on the recipient. Investigation of the specific mechanisms and interfaces between cyberbullying and its emotional impact are in their infancy. A dynamic approach that takes into account the complexity of such interfaces could help us to develop more effective prevention and intervention programmes.

References


