Cyberbullying through Mobile Phone and the Internet in Dating Relationships among Youth People

Ciberacoso mediante teléfono móvil e internet en las relaciones de noviazgo entre jóvenes

ABSTRACT
Cyberbullying is a phenomenon that has been extensively analysed amongst adolescents. However, in Spain, there have been few studies of young adults and particularly of their romantic relationships in the digital context. This study analyses cyberbullying in romantic relationships in mobile and digital exchanges between partners, in a sample comprising 336 students using quantitative methodology. The results show that 57.2% of the sample admit to having been victimised by their partner by mobile phone and 27.4% via the Internet. The percentage of victimised males was higher than that of females. 47.6% affirmed that they had bullied their partner by mobile phone and 14% over the Internet. The percentage of males who did so was higher than that of females. The regression analyses showed correlation between having been victimised by a partner via one of these media and the experience of cyberbullying through the same technological medium. The effects of this interaction highlight that males victimised through the use of mobile phones or the Internet are involved, to a greater extent than victimised females, as the perpetrators in this phenomenon. The results suggest modernisation in the types of violence that young adults experience in their relationships.

RESUMEN
El ciberacoso es un fenómeno ampliamente analizado entre adolescentes, sin embargo en España ha sido poco estudiado entre jóvenes y particularmente en sus relaciones de noviazgo. Empleando una metodología cuantitativa este estudio analiza el ciberacoso mediante el teléfono móvil e Internet en las relaciones de noviazgo en una muestra compuesta por 336 estudiantes universitarios. El análisis de resultados indica que un 57,2% declara haber sido victimizado por su pareja mediante el teléfono móvil, y un 27,4% a través de Internet. El porcentaje de chicas victimizadas fue mayor que el de las chicas. Un 47,6% declara haber acosado a su pareja a través del teléfono móvil, y un 14% a través de Internet. El porcentaje de chicas que lo ejerció fue superior al de las chicas. Los análisis de regresión muestran la relación entre haber sido victimizado por la pareja a través de uno de estos medios y el ejercicio del ciberacoso hacia la pareja mediante el mismo medio tecnológico. Los efectos de interacción ponen de manifiesto que los chicos victimizados a través del teléfono móvil o de Internet se implican, en mayor medida que las chicas victimizadas, como agresores en este fenómeno. Los resultados sugieren una modernización en los tipos de violencia que experimenta la juventud en sus relaciones de pareja.

KEYWORDS | PALABRAS CLAVE
Cyberbullying, victimization, youth, partner, dating relationships, mobile phone, Internet, violence.
Ciberacoso, victimización, jóvenes, pareja, noviazgo, teléfono móvil, Internet, violencia.
1. Introduction

The phenomenon of bullying has had major social repercussions and it is beginning to extend beyond face-to-face bullying through the use of information and communication technologies. This is known as cyberbullying (Avilés, Irurita, García-Lopez & Caballo, 2011; Ortega, Calmaestra & Mora-Merchán, 2008). Cyberbullying is an extremely important phenomenon with significant risks for the health of victims (Ortega & al., 2008). Existing studies have tended to focus on the adolescent population in the context of school, leaving out other major age groups, such as young adults, and contexts, such as romantic relationships, in which this phenomenon could occur (for a review Garaigordobil, 2011). Young adults are heavy users of new technologies, particularly the Internet (Government delegation for domestic violence, 2013) and mobile phones (Bernal & Angulo, 2013; Cuesta, 2012; Livingstone & Haddon, 2009). This article analyses cyberbullying through the use of mobile phones and the Internet, in which young adults are involved in their romantic relationships. We analysed the incidence in a sample of young university students, looking at the differences and influence of gender and the relationship between having previously been victimised by a partner by means of either of these two technologies and the involvement in cyberbullying as a perpetrator.

1.1 Information and communication technologies, cyberbullying and romantic relationships

The Internet and information and communication technologies (ICT) are very present in people’s lives (Bautista, 2012). Currently, around 52% of the European population uses online spaces (Eurostat, 2014). In the case of young adults, this use is even higher than in the older population (Martínez-Pecino, Delerue Matos & Silva, 2013). Internet use by young Europeans has increased to 75% (Livingstone & Haddon, 2009). Mobile phone use has also increased. For example, in Europe there are 106 telephone lines for every 100 inhabitants (EuroStat, 2014). These data show the presence and importance of these technologies in our society.

Despite the numerous benefits of ICT (Abeele & De Cock, 2012; Livingstone, 2008), its rapid and constant growth has also led to problems (Cabello, 2013; Sahin, 2010), particularly for young adults and minors, due to the new forms of violence caused by the use of these technologies, such as «sexting» (sharing images with sexual or erotic content), «grooming» (sexual abuse of children) or cyberbullying, amongst others (Government delegation for domestic violence, 2013). Cyberbullying is one of the most negative effects associated with misuse of ICT in our society (Burgess-Proctor, Patchin & Hinduja, 2009; Microsoft, 2009; Ortega & al., 2008; Tejedor & Pulido, 2012). It can be defined as a form of intimidation, harassment and abuse by an individual or a group towards another, involving the use of technological media as the channel for this aggression (Ortega & al., 2008; Smith & al., 2008). In the same regard, other authors use the term to refer to any form of intimidation or hostility using ICT (Belsey, 2005) or any form of online social abuse (Willard, 2004). The perpetrator may send and share offensive, vulgar or threatening messages, spread rumours about the victim, violate their intimacy or socially exclude or impersonate their victims (Willard, 2005).

Currently, both international studies and those carried out in Spain show the existence of this type of abuse in adolescents (Del Rey, Casas & Ortega, 2012; Félix-Mateo, Soriano-Ferrer, Godoy-Mesas & Sancho-Vicente, 2010; Garaigordobil, 2011; Ortega & al., 2012), which mainly occurs via two channels: mobile phones and the Internet (Buelga, Cava & Musitu, 2010). Therefore, for example, researchers such as Price and Dalgleish (2010) place the involvement of adolescents in cyberbullying as being between 20% and 50%. In Spain, studies such as those by Buelga et al. (2010), Cava, Musitu, and Murgui (2007), Ortega et al. (2008), Calvete, Otue, estévez, Villardon and Padilla (2010), Bringué and Sádaba (2009), Del Río, Sádaba and Bringué (2010) also show similar percentages of involvement. In this regard, a transnational study carried out in Europe on cyberbullying reported that 29% of adolescents said that they had been a victim of cyberbullying (Microsoft, 2009). This phenomenon began to be studied tentatively in young adults in other countries (Dilmac, 2009), but to our knowledge not in Spain.

One aspect that has received little attention even in studies carried out with samples of young adults in other countries is the analysis of cyberbullying in the sphere of romantic relationships. ICT are an important element in relationships between young adults in general and romantic relationships in particular, which makes them more susceptible to being controlled and abused by their partner (Burke, Wallen, Vail-Smith & Knox, 2011).

There are certain studies that evidence this. For example, Spitzberg (2002) highlighted that at least half of all young adults who had suffered cyberbullying identified their partner as the abuser. Alexy, Burgess, Baker and Smoyak (2005) showed that the most fre-
quent young abusers through the use of technology were romantic partners. In the review that was carried out, no studies were found that analyse cyberbullying in romantic relationships between young adults in Spain.

As such, in order to expand on the literature in this area, in this study we analysed the incidence of the phenomenon in romantic relationships in a sample of young university students, describing the levels of victimisation and cyberbullying through the use of mobile phones and the Internet. Although cyberbullying could be studied without distinguishing by which means it is carried out, we understand that mobile phones go beyond simply giving access to the Internet. As such, in line with previous studies, we chose to analyse involvement in this phenomenon both through the use of mobile phones and the Internet (Buelga & al., 2010).

Another aspect to bear in mind in the study of cyberbullying are gender differences, since the results in this regard are inconclusive. As such, while some studies do not find a statistical link between cyberbullying and gender (Finn, 2004), others do (Li, 2006), noting that males (compared to females) are usually those who commit more acts of cyberbullying and females (compared to males) are usually the main victims of this type of violence (Burgess-Proctor & al., 2009; Calvete & al., 2010; Estévez & al., 2010; Félix-Mateo & al., 2010; Finn & Banach, 2000).

Therefore, the second objective of this study is to analyse gender differences in cyberbullying that takes place in the context of romantic relationships, using a sample of young university students. On the basis of the abovementioned studies on victimisation and cyberbullying in adolescents, we expect to find that a higher percentage of university females than males report having been cybervictimized by their partners in the last year (Hypothesis 1) and that a greater percentage of males than females report having abused their partner through the use of technology in the last year (Hypothesis 2).

Lastly, one of the most researched aspects within the phenomenon in adolescents regards factors related to involvement in cyberbullying (Sticca, Ruggeri, Alsaker & Perren, 2013). Some studies (Elipe, Ortega, Hunter & Del-Rey, 2012; Estévez & al., 2010) have indicated that cybervictimisation is related to involvement in cyberbullying as a perpetrator.

Additionally, studies on bullying in traditional contexts have shown the relationship between having been a victim of bullying and undertaking such actions oneself (Avilés & al., 2011; Rodkin & Berger, 2008; Romera, Del-Rey & Ortega, 2011). Given the importance of this variable and the lack of studies on it amongst young people, the third objective of this study is to analyse the relationship between having been victimised by a partner via mobile phones or the Internet and the involvement in cyberbullying as a perpetrator via the same medium. In this regard, and using the previous literature on adolescents as a basis, we expect young adults who have been victimised by their partner by mobile phone to report higher levels of cyberbullying against their partner via this medium than those who were not victimised by their partner (Hypothesis 3). Likewise, young adults victimised over the Internet by their partner will report higher levels of cyberbullying against their partner via this medium than those who were not victimised over the Internet (Hypothesis 4).
2. Material and methods

2.1. Participants

The sample included 336 students in the first year of their Primary Education, Psychology and Journalism degrees at the University of Seville, comprising 180 females and 155 males, aged between 18 and 30 (M=20.67; DT=4.26), where sampling was applied for convenience. All declared that they were heterosexual and had participated voluntarily, without receiving any remuneration for doing so.

2.2. Instruments

We used the inductive-deductive method with a quantitative approach and data processing. As such, a questionnaire was employed, from which we obtained the following information:

- Socio-demographic data (age, sex, sexual orientation, year, degree).
- Frequency of victimisation and cyberbullying in romantic relationships through the use of mobile phones and the Internet in the last year. To collect this information, the following four scales were used:

  Cyberbullying scales through the use of mobile phones and Internet. In order to measure cyberbullying towards a partner during the last year through the use of mobile phones and the Internet, we used the Peer victimisation scale, which was shown to have suitable psychometric properties (Buelga & al., 2010; Cava & al., 2007), adjusting the wording for romantic relationships. Both the measurements of cyberbullying against a partner via mobile phone and the Internet had a 4-point response scale with 1 being (never), 2 being (a few times), 3 being (quite a few times) and 4 being (many times). Examples of items in the first scale are: «I have insulted or ridiculed my partner with messages or calls by mobile phone», «I lied or spread false rumours about my partner by mobile phone».

  Examples of those used to measure the victimisation suffered by a partner through the use of new technologies, reported in accordance with gender. They firstly answered sociodemographic questions and they then completed the scales of victimisation and cyberbullying in romantic relationships through the use of mobile phones and the Internet. At the end, they were thanked for their participation and were provided with a summary of the main objectives of the study.

2.3. Design

The research design was non-experimental; specifically, it had a correlational cross-sectional design.

2.4. Procedure

The participants responded to the questionnaire in their classes. They were guaranteed privacy and the anonymity of their responses. They firstly answered sociodemographic questions and they then completed the scales of victimisation and cyberbullying in romantic relationships through the use of mobile phones and the Internet. At the end, they were thanked for their participation and were provided with a summary of the main objectives of the study.

3. Analysis and results

The data was analysed using the SPSS (version 18) statistical software. In order to analyse levels of victimisation and cyberbullying in romantic relationships, that is, those who had received or carried out some of the acts described above in their romantic relationships in the last year, we carried out frequency analyses. We subsequently carried out a comparison of the means between the victimisation and cyberbullying scores by the partner through the use of new technologies, reported in accordance with gender. We then calculated the Pearson correlation coefficient in the variables of interest in this study (victimisation by mobile phone, Internet victimisation, cyberbullying through the use of mobile phones, cyberbullying over the Internet). Finally, we carried out a hierarchical regression analysis in order to find out the influence of victimisation and gender on involvement in cyberbullying against partners via both technologies.
3.1. Frequency of victimisation and cyberbullying in romantic relationships through the use of mobile phones and the Internet

Tables 1 and 2 display the levels of victimisation and cyberbullying reported by the sample. The results obtained highlight that in the last year, 57.2% of the young adults in the sample report having been victimised by their partners by mobile phone and 27.4% over the Internet. With regard to data on cyberbullying against their partner, the results show that 47.6% report that they used a mobile phone in order to abuse their partner, while 14% used the Internet.

3.2. Gender differences in victimisation and cyberbullying in romantic relationships through the use of mobile phones and the Internet

We found statistically significant differences according to gender, both in the victimisation suffered and in the carrying out of cyberbullying through the use of mobile phones and the Internet (table 3). The results show that males reported greater victimisation by their partners than females, both through the use of mobile phones and the Internet. With regard to differences in accordance with gender in cyberbullying against partners, the results show that males reported greater perpetration of cyberbullying towards their partners than females, both through the use of mobile phones and the Internet.

3.3. The relationship between victimisation and cyberbullying in romantic relationships through the use of mobile phones and the Internet

We observed a strong association between being involved in victimisation and cyberbullying in romantic relationships, both through the use of mobile phones \((r=.57; p<0.01)\) and the Internet \((r =.47; p<0.01)\). In order to analyse the influence of victimisation and gender on the involvement in cyberbullying against partners via both technologies, we carried out a hierarchical regression analysis for each type of cyberbullying (cyberbullying by mobile phone and cyberbullying over the Internet). Before the analyses and in line with the indications of Jaccard, Turirsi and Wan (1990), all continuous variables were centred.

The first regression analysis was carried out with the aim of explaining cyberbullying, in the sample of university students, against their partner by mobile phone (table 4). In the first step, we introduced the variables Victimisation by Mobile Phone and Gender, and in the second step, the interaction between these variables. This analysis showed a principal effect of the variable Victimisation by Mobile Phone \((\beta=0.56, t=12.21, p<0.001)\). That is, at higher levels of victimisation by mobile phone, levels of cyberbullying against partners by mobile phone were higher. However, this effect must be interpreted bearing in mind the second order interaction that occurred between the variables Victimisation by Mobile Phone and Gender \((\beta=0.24, t=3.46, p<0.001)\) (figure 1).

Analysing this interaction, we discovered that in the case of individuals who had not been victimised by their partner via mobile telephone, differences were not found between the cyberbullying that males and females carried out by mobile phone against their partner, \((\beta=-0.15, t=-1.86, p=n.s.)\). However, with regard to individuals who had been victimised by their partner via mobile phone, males in comparison to females, reported higher levels of cyberbullying against their partners by mobile phone, \((\beta=0.21, t=3.03, p<0.01)\).

The second regression analysis was carried out on cyberbullying against partners over the Internet (table 5). In the first step, we introduced the variables Internet Victimisation and Gender, and in the second step, the interaction between these variables. This analysis showed a main effect of the variable Internet victimisation, \((\beta=0.46, t=9.41, p<0.001)\). That is, with higher levels of Internet victimisation, the levels of cyberbullying against partners over the Internet were higher. However, this main effect must be interpreted bearing in mind the second order interaction that occurred between the variables Victimisation by Internet and Gender \((\beta=0.38, t=6.02, p<0.001)\) (figure 2).

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<tr>
<th>Table 1. Frequency of victimisation by partners through the use of mobile phones and the Internet</th>
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<td><strong>Victimisation by Mobile Phone and the Internet</strong></td>
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<td>Mobile; n=336</td>
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<td>Internet; n=336</td>
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<th>Table 2. Frequency of Cyberbullying against partners through the use of mobile phones and the Internet</th>
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As we can observe in figure 2, upon analysing the interaction, we discovered that in the case of individuals who had not been victims of cyberbullying over the Internet by their partners, there were no differences between levels of cyberbullying that males and females reported having directed against their partners over the Internet, ($\beta = -0.08$, t=-1.15, p=n.s.).

However, when participants had been victimised over the Internet by their partner, males reported higher levels of Internet cyberbullying against their partners than females ($\beta = 0.18$, t=2.20, p<0.05).

4. Discussion and conclusions

This study analyses victimisation and cyberbullying through the use of mobile phones and the Internet in romantic relationships, using a sample of young university students. Through this study, we have contributed to expanding the existing literature from three perspectives: firstly, the work is focussed on young adults, which complements existing studies which in Spain have focussed mainly on the adolescent population; secondly, it analyses cyberbullying that takes place in young adults who have a romantic relationship, extending the information existing in other studies focussed on peer relationships and in school contexts; lastly, it analyses the role of gender and of the relationship between having previously been victimised by a partner via these technologies and the involvement in cyberbullying as a perpetrator.

With regard to levels of victimisation and cyberbullying, the results obtained show that 57.2% of participants say that they had been victimised by mobile phone and 27.4% over the Internet, while 47.6% state that they had carried out cyberbullying by mobile phone and 14% over the Internet. These results support those of other international studies (Alexy & al., 2005; Burke & al., 2011) who highlight the presence of this type of behaviour towards partners in young university students through new technologies, and they extended the literature existing on cyberbullying by documenting this phenomenon in a sample of young Spanish university students.

With regard to gender differences, in the case of victimisation in relationships, males, in contrast to what was expected in Hypothesis 1, reported higher levels of victimisation by their partners than females, both by mobile phone and over the Internet. By contrast, in the case of cyberbullying, males reported higher levels of cyberbullying against their partner in the last year, both by mobile phone and over the Internet, therefore supporting Hypothesis 2 of this study. These latest results are along the same lines of those reported in recent studies carried out on an adolescent population (Buelga & al., 2010; Calvete & al. 2010; Elpe & al., 2012; Estévez & al., 2010; Félix-Mateo & al., 2010; Finn & Banach, 2000) which highlight that males carry out more cyberbullying than females, with the existing...
information being extended upon carrying out this study with an older population sample (young adults) and in a different relationship context (romantic relationships). However, these studies usually place adolescents as the main victims of cyberbullying by adolescents (Burgess-Proctor & al., 2009), while in our study, the males reported greater cybervictimisation, which is along the same lines as some more recent studies carried out on young adults in other countries (Burke & al., 2011).

In terms of the relationship between having been victimised by a partner through the use of mobile phones or the Internet and the involvement in cyberbullying as a perpetrator via the same medium, two main effects were observed that support Hypotheses 3 and 4 of this study, respectively. However, these effects must be interpreted considering the effects of interaction along with the gender of participants. As such, we found that compared with females, males who reported having been victimised by their partners by mobile phone were those who reported having carried out more cyberbullying against their partners by mobile phone. Likewise, cyberbullying against a partner through the Internet was influenced by Internet victimisation in interaction with the gender. Males, compared to females, who had been victimised by their partners over the Internet were those who reported having carried out more cyberbullying against their partners via this medium. The results of this study highlight victimisation suffered by the perpetrator as a relevant variable in the exercising of cyberbullying against their partner, that is, these findings highlight the figure of the victimised perpetrator. The results support studies that suggested this both in the case of cyberbullying (Elle & al., 2012) and traditional bullying (Avilés & al., 2011; Rodkin & Berger, 2008; Romera & al., 2011; Sticca & al., 2013) and reaffirm the need to consider victimisation as an important variable in studies that analyse the involvement in cyberbullying, since there have been scant references to it in the literature.

These results may indicate the different way in which males and females react to cyberbullying that takes place in romantic relationships and offer interesting questions both for theoretical and applied research. For example, analysing whether in a situation of technological bullying in a romantic relationship males would tend to react to a greater extent than females, involving themselves in cyberbullying, while females would to a greater extent tend to ignore or not respond with this type of behaviour, or whether, by contrast, what this data may be reflecting is the different way in which males and females perceive cyberbullying. That is, are males overestimating their status as victims or are females underestimating it? In any case, responses to these questions will allow a greater understanding of the gender differences in the phenomenon. In this regard, in future research, it would be very useful to include evaluation instruments that allow qualitative information to be gathered, providing a greater explanation of the results obtained.

This study also has some limitations that should be borne in mind in future studies. It analysed cyberbullying in romantic relationships in a sample of young university students, and as such, future research may complement these results by analysing the phenomena of cyberbullying in young adults who are not studying at university. Likewise, other variables not analysed in this study could be taken into account such as the influence on cyberbullying against a partner of cyberbullying itself or traditional bullying suffered by young adults, that was inflicted by individuals other than their partner (for example friends, classmates or unknown individuals).

In short, the study carried out offers new con-

| Table 5. Regression with Cyberbullying against partners over the Internet as a dependent variable |
|---|---|---|---|---|
| Variable | ΔR² Adjust. | Δ F | Stand. err. | Beta | T |
| Step 1 | 0.23 | 50.00*** | 0.19 | 9.41*** | 6.02*** |
| Victimisation Internet | 0.03 | 0.46 | 0.09 | 1.93 |
| Gender | 0.02 | 0.18 | 0.05 | 3.29*** |
| Step 2 | 0.08 | 36.29*** | 0.18 | 9.41*** | 6.02*** |
| Victimisation Internet X Gender | 0.05 | 0.38 | 0.05 | 3.29*** |

*** p < .001

Figure 2. Relationship between Internet victimisation and cyberbullying against partners in romantic relationships over the Internet in accordance with the gender of participants.
ttributions by analysing the phenomenon of cyberbullying in an older group (young adults), which is different to that normally studied in literature (adolescents), also using different relationship context (romantic relationships), and contributing data on these characteristics in a Spanish context. The results suggest a modernisation of the forms of bullying directed at partners, as a result of new technological changes that our society is experiencing. It also identifies factors that contribute to its occurrence, providing information that may be of interest for future research and interventions aimed at reducing its incidence.

References


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