Justification beliefs of violence, myths about love and cyber dating abuse

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Abstract

Background: Distorted beliefs about violence and love are often associated with the presence of violence in dating relationships. This study analyzes the relationship between beliefs that justify violence and myths about love in two types of cyber dating abuse (control and direct aggression).

Method: The sample consisted of 656 young people between the ages of 18 and 30 years (79.5% women). Results: Regression analysis showed that justification of cyber dating abuse was significantly associated with a higher likelihood of direct aggression in online dating relationships. Myths about love were associated with a greater likelihood of control in online dating relationships. Furthermore, the relationship between justifications of cyber dating abuse and perpetration of direct aggression was stronger in women. The relationship between myths about love and perpetration of online control was stronger among the youngest individuals. Conclusion: The justification of abuse and myths about love are important aspects in the development of different kinds of online abuse among young couples. This finding has important implications for the prevention of and intervention in these behaviors.

Keywords: cyber dating abuse, control, direct aggression, justification, myths about love.

Resumen

Creencias justificadoras de la violencia, mitos sobre el amor y abuso online en el noviazgo. Antecedentes: las creencias distorsionadas sobre la violencia y el amor se han relacionado con la presencia de violencia en las relaciones de pareja. El presente estudio analiza la relación de las creencias que justifican la violencia y los mitos del amor en dos formas de abuso online en el noviazgo (control y agresión directa). Método: la muestra estuvo compuesta por 656 jóvenes de entre 18 y 30 años (79.5% mujeres). Resultados: los análisis de regresión pusieron de manifiesto que la justificación del abuso online se asoció significativamente a una mayor probabilidad de perpetración de agresión directa online en relaciones de noviazgo. Los mitos del amor, por su parte, se relacionaron con una mayor probabilidad de perpetración de control online. Además, la relación entre la justificación del abuso online y la perpetración de agresión directa fue más fuerte entre las mujeres. Por su parte, la relación entre los mitos sobre el amor y la perpetración de control fue más fuerte entre los más jóvenes. Conclusión: la justificación del abuso y los mitos del amor se presentan como aspectos importantes en la aparición de formas de abuso online en parejas. Esto tiene importantes implicaciones para la prevención e intervención sobre estos comportamientos.

Palabras clave: abuso online, control, agresión directa, justificación, mitos del amor.

Using information and communication technologies, such as the Internet and mobile phones, has become a means of harassing and abusing others (David-Ferdon & Hertz, 2007, Lyndon, Bonds-Raacke & Cratty, 2011; Pittaro, 2007; Smith, 2012). Cyber dating abuse (CDA) is an emerging phenomenon that has not been well addressed in the literature (Draucker & Marsoff, 2010; Melander, 2010). This phenomenon comprises a range of behaviors that include, for example, attempting to control a partner or ex-partner using electronic means (Burke, Wallen, Val-Smith & Knox, 2011; Tokunaga, 2011) and sending insulting or threatening messages (Cutbush, Ashley, Kan Hampton & Hall, 2010; Zweig, Dank, Yanher & Lachman, 2013). To date, research has revealed the presence of two basic types of CDA: direct aggression and control (Bennet, Guran, Ramos & Margolin, 2011; Borrajo, Gámez-Guadix, Pereda & Calvete, 2015; Burke, Wallen Vail-Smith & Knox, 2011). Direct aggression behaviors refer to acts that are intended to cause harm to the partner, for example, insulting the partner or spreading negative information about the partner (Zweig et al., 2013), whereas control refers to behaviors that are intended to monitor or control, for example, frequently visiting a victim’s social network profile page (Tokunaga, 2011).

Although empirical evidence is scarce, several studies have shown that these types of aggression could lead to mental health issues for the victims, such as anxiety, negative feelings or diminished personal growth (Bennet et al., 2011; Marshall, 2012; Ybarra Mitchell, Wolak & Finkelhor, 2006). However, the variables involved in the development and maintenance of CDA are unknown. One initial approach to identifying the variables involved in CDA is to explore the risk factors for traditional partner violence.

The attitudes that could justify the perpetration of violence have received much attention in traditional dating violence literature (Múñoz-Rivas, Gámez-Guadix, Grana & Fernández, 2010; Smith-Slep, Cascardi, Avery-Leaf & O’Leary, 2001). The concept that beliefs justifying violence are a risk factor has been extensively
evaluated in terms of general violence (Calvete, 2008; Huessman & Guerra, 1997) and partner violence (Foo & Margolin, 1995; O’Keefe, 1997; Sears, Byers & Price, 2007; Smith-Slep et al., 2001). Additionally, these beliefs have been included as a likely risk factor in prevention and intervention programs for dating violence, both among men and women (Avery-Leaf, Cascardi, O’Leary & Cano, 1997; Smith-Slep et al., 2001). Although debate about the symmetry or asymmetry of partner violence continues (Hamby, 2014; Fernández-González, O’Leary & Muñoz-Rivas, 2014), the role of these beliefs has been analyzed in relation to aggressive behavior by both sexes (O’Keefe, 1997). In general, the majority of the studies indicated that men and women perpetrate different types of aggression in dating relationships; however, the consequences of these types of aggression seem to be more harmful to women (Archer, 2000).

Recent studies have emphasized that several types of violence in the general population (Center for Sociological Research, CIS, 2012) and also among adolescents and young people (CIS, 2013) have received wide acceptance. Meanwhile, in a sample of adolescents, O’Keefe (1997) found that beliefs justifying the violence of men towards women were an important predictor of perpetrating physical violence among men. From the women’s perspective, in addition to the beliefs that justify men being violent towards women, the beliefs that justify women being violent towards men were an important predictor of the perpetration of such violence. However, other studies have predicted the perpetration of physical violence only among men who accept violence (Foshee, Linder, & Bangdiwala MacDougall, 2001). In Spain, Muñoz-Rivas Graña, O’Leary, and Gonzalez (2007) found that, among young people, men have justified their aggression when they acted aggressively in self-defense, whereas women acted aggressively in emotional moments of intense rage or anger. However, although the justification of dating violence has been widely studied, empirical evidence about these beliefs in the context of CDA is, to the best of our knowledge, nonexistent.

Different authors have noted distorted beliefs about love as another risk factor for the development of traditional violence in dating relationships and have attempted to prevent this problem (Barnett, Miller-Perrin, & Perrin, 1997; Garrido & Casas, 2009). Several authors have suggested that young people may be especially vulnerable to the misinterpretation of partner violence because of the unrealistic and distorted vision that they have of love (Sharpe & Taylor, 1999; Sitt, Jester, & Bird, 1992). These distorted ideas or myths include, for example, the belief in the existence of a perfect person for each one or the belief that jealousy is a sign of love (Bosch et al., 2007; Yela, 2000).

In Spain, various studies have demonstrated that beliefs about love among young people are widely accepted (Barrón, Martínez-Illigo, Paul, & Yela, 1999; Ferrer, Bosch, & Navarro, 2010; Marroquí & Cervera, 2014). For example, Marroqui and Cervera (2014) found that approximately 30% of the youth agreed or strongly agreed with the myth of the perfect partner. Furthermore, more than 70% indicated that they agreed with the belief that love conquers all. Ferrer et al. (2010) found that approximately 80% of young people between the ages of 18 and 34 years agreed with a distorted belief about love (e.g., they believe that jealousy is a sign of love).

Additionally, studies have shown differences in the above variables according to sex and age, although there is limited empirical evidence. Regarding sex, women have been reported to have more distorted beliefs about love (Rodriguez-Castro, Lameiras-Fernandez, Carrera-Fernandez, & Vallejo-Medina, 2013), which could be related to greater abuse of the partner. Women justify psychological violence toward their partner, whereas men justify physical violence toward their partner (Muñoz-Rivas et al., 2010). Regarding age, younger individuals have additional distorted beliefs about love (Barron-Lopez et al., 1999) and beliefs that justify violence (Price & Bayers, 1999), which could be related to the perpetration of online abuse.

Considering the prior review and the scarcity of previous studies of online abuse of young couples and its predictors, the objectives of this study were as follows: (a) to analyze the relationship between two types of beliefs (justification of CDA and distorted beliefs about love) and CDA; and (b) to study the relationship between the various distorted beliefs about violence and love and the perpetration of CDA as moderated by age and sex.

Method

Participants

The total sample consisted of 704 young adults between the ages of 18 and 30 years. For the present study, we included only those participants who had a dating relationship for more than 1 month (93.18% of the total sample). Thus, the final sample consisted of 656 young adults (79% female, 21% male; mean age, 22.58 years; SD, 4.8). Of the entire sample, 74.2% currently had a partner, and 25.8% had a previous relationship but not a present relationship. With regard to sexual orientation, 92.2% were heterosexual, 3.2% homosexual and 3.7% bisexual. The average duration of their relationships was 33.80 months (SD = 55.05). Regarding the educational level achieved by the participants, 1.1% had completed compulsory education, 1.1% had a Bachelor’s degree, 4.1% had received professional training, 66.3% held a degree in Engineering, and 13.4% had received a Master’s degree/PhD.

Instruments

Online Dating Abuse (Borrajo et al., 2015). This questionnaire consists of 20 items regarding different types of CDA. The questionnaire consists of two factors: Direct aggression (e.g., “I threatened my partner or former partner using new technologies to physically hurt her/him”) and Control (e.g., “Using mobile applications, I controlled the hour of the last connection with my partner or former partner”). The response scale used was a Likert scale: 1 (never); 2 (not in the last year, but before); 3 (1 or 2 times); 4 (3 to 10 times); 5 (10 to 20 times); and 6 (more than 20 times). This instrument has been demonstrated to exhibit adequate psychometric properties, including content, construct and convergent validity. The reliability of the scale for this sample was α = .78 for perpetration of direct aggression and α = .82 for perpetration of control.

Justification of Cyber Dating Abuse. This scale was developed for the present study from previous scales of justification of online aggression (e.g., Gámez-Guadix, Calvete, & Villa-George, 2014). It consists of 5 items that assess the justification for various types
of aggression toward the partner using electronic means (e.g., “Spreading rumors and/or gossip about the couple is OK if he/she did it first”). The response scale has four alternatives ranging from 0 (totally disagree) to 4 (strongly agree).

We analyzed the structure of the questionnaire by performing an exploratory factor analysis (EFA) of Principal Axes with Varimax rotation. The Kaiser measure of sampling adequacy was .79. Inspection of the eigenvalues and scree plot suggested a factor structure that explained 48.14% of the variance.

Perpetration of psychological violence. Because cyber dating abuse is a type of psychological violence (Melander, 2010), we included offline psychological violence (traditional, or face-to-face, psychological aggression) as a control variable for all of the analyses. To measure psychological violence, we used the Modified Conflicts Tactics Scale (Neidig, 1986; adapted to Spanish by Muñoz-Rivas, Andreu, Grana, O’Leary and Gonzalez, 2007). The scale of psychological violence consists of 5 items that measure the frequency of perpetration and victimization on psychological violence. For this study, we used only items relevant to the perpetration scale (e.g., “You have threatened your boyfriend/girlfriend with hitting him/her or throwing an object”). The response scale is a Likert scale, providing five possible answers ranging from 1 (never) to 5 (very often). The scale had a reliability of $\alpha = .67$ for this sample.

Procedure

The study was conducted using an online survey. The link of the study was distributed through an information leaflet, e-mail and University of Deusto’s social networking sites. The researchers informed the participants of the general purpose of the study; they requested that the participants sign the informed consent; they explained that their participation was voluntary and anonymous and that they were free to withdraw from the study at any time. Once the participants provided their consent, they were given access to the online survey. Additionally, they were provided with the e-mail address of one of the researchers in case they desired more information regarding the study. The time required to complete the questionnaire was 20-30 minutes. The procedure of the study was reviewed and approved by the Ethics Committee of the University of Deusto.

Data Analysis

First, the descriptive statistics and bivariate correlations for all of the study variables were calculated. Second, we conducted a hierarchical multiple regression analysis to test hypotheses regarding the relationship of justification beliefs of violence and myths about love with the perpetration of the CDA and the moderating role of sex and age (Frazier, Tix and Barron, 2004).

Table 1 shows the gender differences in all of the variables included in the study. There were significant differences in two variables, the perpetration of online control and the perpetration of offline psychological violence, which were higher in women, although the effect size was small for both genders. The prevalence of online control was 88.4% (81.2% for men and 90.3% for women). This difference was significant, $\chi^2(1, N = 656) = 8.98$, $p < .01$. Meanwhile, the perpetration of online direct aggression presented a prevalence of 20.3% (18.7% men and 26.1% women), which was not significant, $\chi^2(1, N = 656) = .056$.

Table 2 shows the descriptive statistics and bivariate correlations between the variables. The results indicated a significant correlation between control and offline psychological violence, between control and justification of CDA and between myths about love and control of CDA. Regarding direct aggression, the results showed a significant relationship with the perpetration of offline psychological violence, the justification of CDA and myths about love.

Role of beliefs in cyber dating abuse

To analyze the relationship between justification of CDA, myths about love and CDA, we performed a hierarchical multiple regression analysis. The regression analysis was performed using variables to predict factor scores for direct aggression and control of CDA (a model for each of these variables). To control the likelihood that the relationship between the variables was spurious and that
it could be explained by the perpetration of offline psychological violence, this variable was introduced as a control variable in step 1. The justification of CDA, myths about love, age and gender were added in step 2. Finally, as the last step, the terms of the interaction between the variables were as follows: Justification of CDA × Sex; Justification of CDA × Age; Myths about Love × Sex; Myths about Love × Age; and Justification of CDA × Myths about Love. As recommended by several authors (Frazier et al., 2004), we transformed the continuous predictor variables (beliefs and age) to Z scores, and we used the effect code (-1, 1) for sex. A model for control and another for direct aggression was performed.

The final regression model for online control is included in Table 3. In step 1, the results showed that perpetration of psychological offline violence was significantly related to perpetration of online control. In step 2, justification of CDA, myths about love, age and sex were added to the regression equation. The age and myths about love were related to perpetration of online control. In contrast, no relationship with sex was found. Finally, the interaction terms were added. The results showed that the interaction between myths about love and age was significant. For parsimony, we estimated a final model only with significant interactions (Table 4). The interaction between sex and justification of CDA indicated a significant relationship between women ($\beta = .09$, $p < .05$), but not among men ($\beta = -.08$, $p = .383$). The graphical representation of the interaction is shown in Figure 2.

A second model for online direct aggression was estimated. Following the same steps as in the previous model, in step 1 the perpetration of offline psychological violence was introduced as a control variable. Direct aggression was related to the perpetration of offline psychological violence. In the second step, the justification of CDA, myths about love, age and sex were added to the equation. In this case, the justification of CDA showed an association with direct aggression. In the last step, interaction terms (Myths about Love × Age, Myths about Love × Sex, Justification of CDA × Age, Justification of CDA × Sex, and Myths about Love × Justification of CDA) were added. For parsimony, we estimated a final model only with significant interactions (Table 4). The interaction between sex and justification of CDA indicated a significant relationship between women ($\beta = .09$, $p < .05$), but not among men ($\beta = -.08$, $p = .383$). The graphical representation of the interaction is shown in Figure 2.

### Table 3

<table>
<thead>
<tr>
<th>Step</th>
<th>B</th>
<th>Std. Error</th>
<th>$\beta$</th>
<th>T</th>
<th>R² Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>Psychological violence</td>
<td>.92</td>
<td>.07</td>
<td>.47</td>
<td>13.49***</td>
</tr>
<tr>
<td>Step 2</td>
<td>Sex (M = -1; W = 1)</td>
<td>.11</td>
<td>.07</td>
<td>.05</td>
<td>1.63</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>-.02</td>
<td>.01</td>
<td>-.09</td>
<td>-2.60**</td>
</tr>
<tr>
<td></td>
<td>Justification CDA</td>
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<td>.11</td>
<td>.06</td>
<td>1.70</td>
</tr>
<tr>
<td></td>
<td>Myths about love</td>
<td>.21</td>
<td>.05</td>
<td>.14</td>
<td>3.80**</td>
</tr>
<tr>
<td>Step 3</td>
<td>Myths about love × age</td>
<td>-.08</td>
<td>.03</td>
<td>-.10</td>
<td>-2.93*</td>
</tr>
</tbody>
</table>

* $p < .05$; ** $p < .01$; *** $p < .001$. 

![Figure 1. The effect of age on the relationship between belief in the myths about love and the perpetration of online control.](image1)

![Figure 2. The effect of sex on the relationship between justifying beliefs of CDA and online direct aggressions.](image2)
Justification beliefs of violence, myths about love and cyber dating abuse

Table 4
Hierarchical regression analysis for direct aggression

<table>
<thead>
<tr>
<th>Step</th>
<th>B</th>
<th>Std. Error</th>
<th>β</th>
<th>t</th>
<th>ΔR²</th>
<th>ΔF (df, df)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
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<td></td>
<td></td>
<td>R² = .06, F (1, 654) = 45.79***</td>
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<tr>
<td>Psychological violence</td>
<td>0.11</td>
<td>0.02</td>
<td>0.26</td>
<td>6.77***</td>
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<tr>
<td>Step 2</td>
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<td></td>
<td>ΔR² = .16, F (4, 650) = 18.19***</td>
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<td></td>
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<tr>
<td>Sex (H = -1; M = 1)</td>
<td>-.04</td>
<td>.01</td>
<td>-.09</td>
<td>-2.37**</td>
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<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.00</td>
<td>-0.10</td>
<td></td>
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<tr>
<td>Justification of CDA</td>
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<td>0.02</td>
<td>0.30</td>
<td>8.06***</td>
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<tr>
<td>Myths about love</td>
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<td>0.01</td>
<td>-0.04</td>
<td>-0.92</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Step 3</td>
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<td>ΔR² = .24, F (2, 648) = 36.67***</td>
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<tr>
<td>Justification X Sex</td>
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<td>.01</td>
<td>-.35</td>
<td>-7.10***</td>
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<td>Justification X Myths</td>
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<td>.01</td>
<td>.14</td>
<td>3.84***</td>
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</tbody>
</table>

**p < .01; ***p < .001.

Discussion

Numerous studies have shown the effect of cognitions, often in the form of beliefs, in human behavior (Beck, 1976; Huessman & Guerra, 1997). The present study sought to analyze the role of two types of beliefs (justification of CDA and myths about love) in two important types of cyber dating abuse (control and direct aggression) and to explore whether age and sex moderated these roles.

First, the study highlights the considerable prevalence of online abuse among young couples. More than 80% of young people were involved in control behaviors toward their partner, and 20% were involved in some type of online aggressive behavior. These results extended previous evidence of the prevalence of traditional psychological abuse (Almendros, Gámez-Guadix, Carrobles, Rodríguez-Carballeiras, & Porrúa, 2009; Corral & Calvete, 2006) and showed that a common type of abuse appears to be normalized in the relationships of many young couples. Consistent with what was found in previous studies (Muñoz-Rivas et al., 2007), both men and women seem to exhibit these behaviors. Future studies should consider whether the likely consequences are worse for women, as shown forOffline violence (Banyard & Cross, 2008).

The results showed that both types of beliefs are related to CDA. Specifically, the belief in myths about love is related to the perpetration of online control. This result supports the findings in different studies that some young people show a distorted and unrealistic vision of love that increases the likelihood of offline aggressive behaviors toward the partner (Stith et al., 1992). In this sense, it is likely that a distorted view of love might appear to justify abusive behaviors, such as constantly checking where a partner is or whom a partner is with, which could be interpreted as acceptable expressions of concern and love (Redondo, Ramis, Girbis, & Schubert, 2011).

Justification of CDA increased the likelihood of reporting perpetration of direct aggression (e.g., insults and threats). These results extend the previous empirical evidence to traditional dating aggression, which has indicated that justifying beliefs of offline violence relates to the perpetration of aggression (Schumacher & Smith-Slep, 2004; Smith-Slep et al., 2001). However, despite the fact that the justification of CDA and control showed a significant relationship at the correlation level, this association was not significant once other variables were included in the multiple regression equation, suggesting that the correlation could be explained by the overlap with other variables in the study. Therefore, explicit cognitive justifications may play a more important role in the case of direct aggression than in the case of control.

Sex moderated the relationship between the justifying beliefs of CDA and the perpetration of direct aggression. In this sense, a significant relationship was found only between women. The empirical evidence in this regard is still scarce; hence, future studies should continue to investigate the role of sex in the specific case of online abuse and specific issues that could influence the results, such as aggression as a form of self-defense in response to previous aggression.

The results showed that age moderates the relationship between beliefs in myths about love and perpetration of online control. This relationship was significant among younger youth. Several authors have suggested that the young have a more traditional and unrealistic vision of the couple (e.g., love justifies a controlling partner) (Barron et al., 1999), and this study suggests that these myths can influence the perpetration of control behaviors to a greater extent in younger persons. Another likely explanation is that more experience in relationships, with increasing age, could make older individuals more aware of their own abusive behaviors (Price and Bayers, 1999) and could motivate them to control how their beliefs affect their behavior.

This study has several limitations. First, the cross-sectional design does not allow the same temporal relationships between beliefs about love and justification of CDA and perpetration of CDA. Future studies should consider determining the direction of this relationship. Second, although the sample is large, it is not representative of the Spanish population; therefore, we must be cautious about generalizing the results. Third, the reliability of several of the scales used was low. Future psychometric studies should aim to increase the psychometric properties of these instruments. Finally, the majority of the participants were women and this factor could have affected the study of gender moderation.
The findings of this study have important implications for the prevention of and intervention in CDA. Note the importance of early preventative programs for CDA. The results suggest that the appearance of distorted beliefs about love at an early age results in the perpetration of CDA. Therefore, introducing prevention even before adolescence may increase the effectiveness of such programs and reduce the occurrence of future CDA behaviors.

In conclusion, the present study increases our awareness of an emerging phenomenon, CDA, which has been little studied thus far. This study is an important starting point in understanding the variables that could be involved in the development and maintenance of online bullying behaviors in young couples.

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