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Individual and class justification of cyberbullying and cyberbullying perpetration: A longitudinal analysis among adolescents

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ABSTRACT

The main aim of the study was to investigate the role of individual and class justification of cyberbullying in predicting adolescents' cyberbullying perpetration over 6 months. The effects and moderating role of impulsivity, age, and gender in the hypothesized relationship between justification and cyberbullying were also tested. A sample of 750 Spanish adolescents (453 girls; mean age = 14.76; *SD* = 0.96) completed self-report measures at two time points during the same school year. Results from hierarchical linear modeling showed that individual-level cyberbullying justification at Time 1 significantly predicted higher levels of cyberbullying perpetration at Time 2 but only at low levels of impulsivity. Class-level justification significantly explained between-classes variability in cyberbullying perpetration at Time 2. Interestingly, this effect is moderated by age, indicating that the role of class justification was significant only for younger adolescents. Intervention efforts to prevent cyberbullying should center around the peer group at the class level and start during early adolescence.

1. Introduction

Cyberbullying, a serious societal problem that affects many youth, is defined as repetitive, aggressive, intentional behavior carried out by an individual or group using electronic means (e.g., the Internet, mobile phones) against victims who cannot easily defend themselves (Hinduja & Patchin, 2008; Smith et al., 2008). This behavior has been linked to negative outcomes for victims' psychosocial adjustment, including depression (Gámez-Guadix, Gini, & Calvete, 2015; Gámez-Guadix, Orue, Smith, & Calvete, 2013), drug and alcohol abuse (Vieno, Gini, & Santinello, 2011), and suicide ideation and attempts (Gini & Espelage, 2014; van Geel, Vedder, & Tanilon, 2014). A key to preventing cyberbullying is identifying its predictive risk factors.

However, understanding of cyberbullying and the contributing processes is incomplete. From a broad perspective, the general aggression model (GAM; Anderson & Bushman, 2002; Kowalski, Giumetti, Schroeder, & Lattanner, 2014) and, more specifically, the social cognitive framework can help explain this form of peer aggression. This framework suggests that individuals' cognitions regarding behavior (e.g., justification of cyberbullying) play a central role in aggressive actions and the stability of that behavior over time (Crick & Dodge, 1994; Huesmann & Eron, 1984). Social cognitive theories suggest that, in addition to individual characteristics, social processes and contextual variables, such as group justification of aggression, can influence behavior in peer relationships (e.g. Caravita, Sijtsema, Rambaran, & Gini, 2013, Faris & Ennett, 2012, Salmivalli, 2010). Furthermore, although the GAM relies on cognitions to explain cyberbullying, it provides a comprehensive framework that integrates other situational and personal factors, such as impulsivity, sex, and age (Kowalski et al., 2014).

Based on the social cognitive framework, this study is aimed at advancing knowledge of the variables affecting cyberbullying. To predict perpetration, the role of individual and class cyberbullying justifications and their interplay with other important personal factors (e.g., impulsivity) are analyzed from a longitudinal and multilevel perspective. In the following section, we explain the theoretical and empirical bases for these aims.

2. Individual justification and cyberbullying

Social cognitive theories of aggressive behavior have been widely used to explain traditional forms of aggression, including peer bullying (Swearer, Wang, Berry, & Myers, 2014). An important tenet of these theories is that people store in their memory certain knowledge structures based on their life experiences ("schemas" or "scripts," Huesmann, 1988; "database," Crick & Dodge, 1994). These structures affect future behavior and regulate actions by establishing allowable or prohibited behaviors. In the case of aggressive behavior, previous research has uncovered schemas related to justification of the use of violence that have significant associations with actual aggressive behaviors (Bosworth, Espelage, & Simon, 1999; Calvete, 2008; Huesmann & Guerra, 1997).

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Justifications of aggression have also been positively associated with cyberbullying perpetration (Calvete, Orue, Estévez, Villardón, & Padilla, 2010; Heirman & Walrave, 2012; Williams & Guerra, 2007). Among the few longitudinal studies conducted to date, Barlett and colleagues (Barlett & Gentile, 2012; Barlett et al., 2014; Barlett, Gentile, & Chew, 2014) found that attitudes justifying cyberbullying were associated with cyberbullying perpetration two months later. However, these studies focused on young adults (college students), and little is known about the longitudinal relationship between justification and cyberbullying in adolescents.

A recent meta-analysis (Kowalski et al., 2014) found a medium association ($r = .37$) between cyberbullying and justifications of aggressive behavior. However, this finding was limited by the scarcity of longitudinal studies that have examined this relationship in adolescents, and researchers have called for further investigations that "explore the issue of moral justifications in online aggressive relationships" (Gini, Pozzoli, & Bussey, 2014, p. 64). Most previous studies on cyberbullying have used cross-sectional designs. However, longitudinal studies allow more stringent analyses of the temporal relationships of variables and minimize the risk of common method biases (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Therefore, to contribute to the growing body of knowledge on the risk factors for cyberbullying, we analyze the short-term longitudinal association between adolescents' actual cyberbullying behavior and their tendency to justify aggressive behaviors in online peer relationships. Consistent with the positive association between justification of aggressive behavior and traditional bullying and cyberbullying reported in previous studies (Gini et al., 2014; Kowalski et al., 2014), we hypothesize that higher levels of cyberbullying justifications at Time 1 (T1) predict cyberbullying behavior six months later.

In addition, previous studies suggest that the relationship between individual justification and cyberbullying varies according to individual characteristics, such as sex and age. For example, evidence indicates that cyberbullying perpetration and justification are both higher among boys than girls (Athanasiades & Deliyanni-Kouimtzis, 2010; Boulton, Lloyd, Down, & Marx, 2012; Calvete et al., 2010). It has also been found that cyberbullying appears to peak around eighth grade and then decline with age (Tokunaga, 2010) and that bullying justification also decreases with age (Salmivalli & Voeten, 2004). Based on these findings, we expect that the relationship between individual justification and cyberbullying perpetration to be strongest among boys and younger adolescents.

3. Class justifications and cyberbullying

Social cognitive theories do not explain aggressive behavior only by individual psychological processes. Social processes and contextual variables can also influence behavior in peer relationships, and some authors stress the importance of the normative context in which peer aggression takes place (e.g. Caravita et al., 2013, Faris & Ennett, 2012, Salmivalli, 2010). Social influence processes among classmates can be especially significant because classrooms are among the most important normative contexts for children and adolescents. Classrooms are characterized by a moral climate and social norms which, even when they do not reflect group members' private attitudes, implicitly or explicitly confer varying levels of approval on negative conduct, thus affecting the behavior of group members (Espelage & Swearer, 2003; Gini et al., 2014; Juvonen & Galván, 2008).

A crucial aspect of the normative context for cyberbullying is the level of class justification of cyberaggression (Elledge et al., 2013). Class justification refers to the extent to which classmates develop shared injunctive beliefs regarding the appropriateness of cyberaggression. Class justification can develop through individual cognitive and affective processes, such as imitation, social comparison, competition, group conformity, and norms (e.g. Bandura, 1977, Brown, Clasen, & Eicher, 1986, Sieving, Perry, & Williams, 2000). This theory is consistent with the social-ecological model widely used to study adolescent development in various life domains (Bronfenbrenner, 1979). To date, only a few researchers have conducted cross-sectional analyses of the role of class-level justifications in traditional bullying (Pozzoli, Gini, & Vieno, 2012a; Salmivalli & Voeten, 2004). These studies show that the between-class variability of bullying behavior can be partly explained by higher beliefs that justify such behavior at the class level. However, so far, little is known about class-level influences on cyberbullying. Classrooms are important socialization contexts that can influence how adolescents construct their digital worlds (Subrahmanyam & Greenfield, 2008; Subrahmanyam, Reich, Waechter, & Espinoza, 2008). This influence could be stronger for younger students than for older adolescents. For example, in Spain, younger students (in compulsory secondary education) are likely to spend more time and share more classes with the same classmates than older adolescents (in high school), who often change classrooms and classmates throughout the day. In addition, although cyberbullying does not necessarily occur on school premises, there is evidence that school factors, such as a negative school climate and low school safety, have a negative effect on it (Kowalski et al., 2014).

Therefore, the second aim of this study is to test whether *class justification*, that is, the degree to which justifications of cyberbullying are present within a classroom, predict between-class differences in cyberbullying perpetration over time. Determining the role of group justification in cyberbullying is especially important to better design prevention efforts at the classroom level. Consistent with previous studies assessing the influence of class norms on traditional bullying (e.g. Pozzoli et al., 2012a, Salmivalli & Voeten, 2004), we anticipate a greater likelihood of cyberbullying behavior at Time 2 (T2) in classrooms with higher levels of class justification at T1.

As do individual justifications, class-level justifications might also interact with important demographic variables, such as age and gender, to predict cyberbullying. For example, previous studies have found that girls tend to be more resistant to group and peer influence than boys, including in situations involving antisocial behavior (Steinberg & Monahan, 2007). Regarding age, the relevance of adherence to group norms has been found to be especially high in early adolescence but to gradually decrease during late adolescence (Rubin, Bukowski, & Parker, 1998; Steinberg & Monahan, 2007). Therefore, we hypothesize that the relationship between class justification and cyberbullying perpetration is stronger for boys than girls and for younger adolescents than older adolescents.

4. Justification, impulsivity, and cybervictimization

Although the GAM relies on cognitions to explain cyberbullying, this model also provides a comprehensive framework integrating other situational and personal factors (Anderson & Bushman, 2002). Impulsivity and cybervictimization have been identified as two important factors leading to cyberbullying encounters (Kowalski et al., 2014).

Regarding impulsivity, it has been reported that an individual who does not have sufficient cognitive or emotional resources to deal with a stressful or threatening situation might act impulsively and automatically by, for example, sending an insulting or threatening message (Kowalski et al., 2014). Thus, cyberbullying is more likely to occur when individuals act impulsively without fully considering the possible consequences for the victims (Bhat, 2008). Empirical evidence suggests a positive association of impulsive traits with frequent cyberbullying behavior (Gámez-Guadix, Villa, & Calvete, 2014; Kokkinos, Antoniadou, & Markos, 2014; Vazsonyi, Machackova, Sevcikova, Smahel, & Cerna, 2012). Therefore, we expect that high levels of impulsivity are a significant risk factor that predicts a greater likelihood of cyberbullying perpetration by adolescents at T2.

In addition to this main effect, impulsivity can interact with cyberbullying justification, leading to cyberbullying perpetration. A recent study showed that justifications of negative acts through