Cybervictimization and cyberbullying: The mediating role of anger, don't anger me!

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A B S T R A C T

Recent research has revealed relationship between cybervictimization and cyberbullying, but the possible role of anger as a mediating factor between cybervictimization and cyberbullying remains an area for further clarification. The purpose of this study was to analyze the direct and indirect relationships among cybervictimization, anger expression styles, and cyberbullying, and to test whether anger expression styles mediates the relationship between cybervictimization and cyberbullying in the context of General Strain Theory (GST). Data for the present study were collected from 687 undergraduate students with a mean age of 22.45 years (SD = 2.42). Participants completed cyberbullying, cybervictimization and anger expression scales. Structural equation modeling was used to test two models: one to examine direct and indirect relationships and one to examine only indirect relationships in which cyberbullying predicted anger-in and anger-out which in turn predicted cyberbullying. Analyses of fit indices showed that both models were adequate fits for the data. The findings provide evidence of direct effects of cybervictimization on cyberbullying and indirect effects of cybervictimization on cyberbullying mediated by anger-in. Specifically, results showed that cybervictimization was positively and directly related to anger-in and anger-out, and indirectly related to cyberbullying through anger-in. Prevention programs in schools can be applied to improve students' emotion regulation and anger control, not only in the context of overt aggression, but also in cyberspace.

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1. Introduction

Rapid increases in internet use have provided bullies with new avenues for communication (Brighi, Guarini, Melotti, Galli, & Genta, 2012) and new fashions such as particular social network sites (Slonje, Smith, & Frisén, 2013). Moreover, advances in communication technologies may also create opportunities for aggressive dynamics such as cyberbullying (Brighi et al., 2012). In spite of the variations in defining cyberbullying, it is often described as an intentional aggressive behavior which occurs through the use of information and communication technologies (Francisco, Simão, Ferreira, & das Dores Martins, 2015; Kubiszewski, Fontaine, Potard, & Auzoult, 2015; Udris, 2014). Cyberbullying can be considered an advanced form of bullying problem that takes place via new technologies. This advanced form of bullying generates a new set of challenges for educators and researchers (Sabella, Patchin, & Hinduja, 2013; Wong-Lo, Bullock, & Gable, 2011) attempting to understand the context in which it

occurs and to provide adequate protections and prevention programs.

Although cyberbullying and traditional bullying appear to have similar negative impacts, anonymity, lack of a safe haven and rapid dissemination can make the impact of cyberbullying especially strong for some young people (Slonje et al., 2013). Indeed, the sense of safety created from hiding behind a computer screen makes cyberbullying different from traditional types of bullying and makes free individuals from social pressures (Calvete, Orue, Estévez, Villardón, & Padilla, 2010; Hinduja & Patchin, 2008; Li, 2007). Furthermore, traditional bullying is often contained to the schoolyard; however, cyberbullying can occur at all hours via information and communication technologies (Crosslin & Golman, 2014, p. 14). Thus traditional strategies to prevent bullying are insufficient for bullying behavior that takes place in cyberspace (Wong-Lo et al., 2011).

There is a need to better understand the causes of cyberbullying to provide adequate prevention programs. Thus the main question should be "Why would youth engage in such behaviors?" (Patchin & Hinduja, 2011). Researchers have reported that the likelihood of becoming a bully is higher when individuals have previous

experiences of being a victim (Kowalski & Limber, 2007; Law, Shapka, Hymel, Olson, & Waterhouse, 2012; Patchin & Hinduja, 2006; Wong-Lo et al., 2011; Ybarra & Mitchell, 2004). Indeed, victims of bullying experience various problems such as isolation, internalization of emotions, difficulty in emotion regulation (Kumpulainen, 2008; Marini, Dane, Bosacki, & Ylc, 2006), and depression (Cuevas, Finkelhor, Turner, & Ormrod, 2007), which have been found to be associated with risky behaviors (Auerbach, Abela, & Ho, 2007). Victimized children are more likely to exhibit delinquent behaviors such as physical aggression (Barker et al., 2008; Cuevas et al., 2007), and most cybervictims are also cyberaggressors (Hinduja & Patchin, 2007; Vandebosch & Van Cleemput, 2009; Ybarra & Mitchell, 2004).

General Strain Theory (GST) could serve as a theoretical guide for understanding the link between cybervictimization and cyberbullying. In a series of articles, Agnew (1985, 1989, 1992) developed a foundation for a GST which focused on negative emotions and affect. Three main sources of strain are defined by Agnew (1992): (1) fail to achieve goals that they value, (2) removal of positively valued stimuli, and (3) noxious situations or events, which cause delinquency because they elicit negative emotions (Ackerman & Sacks, 2012). According to theory, negative affective states (e.g., anger and related emotions) arise in reaction to these stimuli and increase the possibility of delinquent adaptations (Mazerolle, Burton, Cullen, Evans, & Payne, 2000). GST proposes that crime, deviance, and drug use may be among the activities that people choose to engage in as a way to manage the effects of negative emotions in themselves (Capowich, Mazerolle, & Piquero, 2001).

Although a few studies have applied GST to bullying (Ackerman & Sacks, 2012; Hay, Meldrum, & Mann, 2010; Patchin & Hinduja, 2011), no study has examined bullying as a potential outcome of strain. In an effort to fill this void, Patchin and Hinduja (2011) hypothesized that some youth may engage in bullying behaviors (both traditional and online) as a response to strainful life events and the negative emotions that they produce. The authors found that feelings of anger were more likely to foster participation in bullying and cyberbullying. Indeed, studies on bullies and/or victims have shown that victims' negative feelings (Karatzias, Power, & Swanson, 2002) can reduce their ability to solve their problems effectively (Pakaslahti, 2000). Because of this, victims are more likely to interpret social cues in a hostile manner and to have subsequent feelings of anger (Camodeca & Goossens, 2005). Other researchers have pointed to anger dysregulation as a silent problem for victims of bullies (Rieffe, Camodeca, Pouw, Lange, & Stockmann, 2012). Consequently, deficiency in emotion regulation and/or inappropriate anger expression styles could be risk factors for victims of bullying to become bullies themselves.

Many studies have reported that anger or the manner in which it is expressed is an important predictor of aggression (e.g., Brezina, Piquero, & Mazerolle, 2001; Karataş, 2008; Kesen, Deniz, & Durmuşoğlu, 2007; Larson, 2008). Individuals are throwing their anger in, out and/or control. Whereas directing anger-in refers to the absence of its observable expression, keeping it under pressure, directing anger-out refers to hitting objects, physically harming other people or damaging others in verbal ways such as hurling insults and criticism (Spielberger, 1991; Özer, 1994). Specifically, individuals directing anger inward are more likely to behave aggressively (Aydın, 2005; Baltaş & Baltaş, 2004). Previous studies have documented that victims of bullying are typically not willing to share their experience with others (Smith & Shu, 2000). This is especially true for victims of cyberbullying (Slonje & Smith, 2008), which could increase the likelihood of directing anger inward.

Two contradictory hypotheses can be derived from the literature. In contrast to the hypothesis that anger-in produces a

prolonged state of arousal that may lead to outbursts of aggression, the catharsis hypothesis holds that anger-out leads to a reduction in the level of anger (Keinan, Ben-zur, Zilka, & Carel, 1992). Breuer and Freud (1955) believed that expressing anger is much better than keeping it in, for if people do not let their anger out, they will eventually explode aggressively (see in Bushman, 2002). However, the negative relationship between anger-out and anger-control suggests that high levels of anger-out might be an obstacle in controlling anger. Anger-out refers to the tendency to respond with either physical or verbal aggression when angry and does not appear to be part of the repertoire an individual applies (Zimprich & Mascherek, 2012). Similarly, Bushman, Baumeister, and Phillips (2001) showed that people, who had been induced to believe in venting anger responded more aggressively than others.

In previous studies, even there are findings indicating the relationship between anger and traditional bullying (Borg, 1998; Bosworth, Espelage, & Simon, 1999; Brezina et al., 2001; Sigfusdottir, Gudjonsson, & Sigurdsson, 2010), little is known about the influence of anger on behaviors in cyberspace. The question of whether anger makes the cybervictim more vulnerable to becoming a cyberbully is important. The current study, therefore, used GST to further examine whether anger expression mediates the relationship between cybervictimization and cyberbullying.

Research on gender differences in cybervictimization has shown that females are disproportionately represented among victims (Barboza, 2015; Dehue, Bolman, & Völlink, 2008; Kowalski & Limber, 2007; Ybarra & Mitchell, 2004). At the same time, females are increasingly more involved in cyberbullying compared to traditional bullying (Slonje et al., 2013; Smith, 2012). There are also differences in anger expression styles between males and females. According to Kerr and Schneider (2008), although females may appear to express less anger than males, they may simply express anger in different ways (p. 570). Some studies found that although feminine gender roles were associated with anger-in, masculine roles were related to anger-out (e.g., von Arb et al., 2009). In the current study, therefore, gender differences in the relationships among cybervictimization, anger-out, anger-in, and cyberbullying were also considered.

The purpose of this study was to analyze the direct and indirect relationships among cybervictimization, anger expression styles, and cyberbullying, and to test whether anger expression styles mediates the relationship between cybervictimization and cyberbullying based on GST. The theory proposes that youth who experience adverse circumstances are then pressed into delinquency by negative emotional reactions, such as anger. We hypothesized that there would be a significant relationship between cybervictimization and cyberbullying. We further hypothesized, in accordance with GST, that the relationship between cybervictimization and cyberbullying would be partly mediated by anger-in and anger-out (see Fig. 1). Finally, we hypothesized that there would be gender differences in the relationships among cybervictimization, anger expression styles, and cyberbullying.

2. Method

2.1. Participants

The study involved 687 undergraduate students, 453 (66%) males and 234 (34%) females. Participants were randomly selected among students from different faculties of Adnan Menderes University, 344 Education (50%), 238 Science (35%), and 105 Medicine (15%). Based on the demographic data, in faculty of education only one third of students have smart phone with internet