Research Report

Predictors of cyberbullying perpetration among college students: An application of the Theory of Reasoned Action

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ARTICLE INFO

ABSTRACT

The present study tested the Theory of Reasoned Action (TRA) as an explanation for cyberbullying perpetration among 375 (128 male, 246 female) college students. Empathy toward cyberbullying victims was also included in the models. Participants completed the cyberbullying perpetration scale of the Cyberbullying Experiences Survey (Doane, Kelley, Chiang, & Padilla, 2013) that assesses four types of cyberbullying (deception, malice, public humiliation, and unwanted contact). Across all four models, results showed that lower empathy toward cyberbullying victims predicted more favorable attitudes toward cyberbullying perpetration, more favorable attitudes toward cyberbullying predicted higher intentions to cyberbully, and higher cyberbullying intentions predicted more frequent perpetration of cyberbullying behaviors. Injunctive norms regarding cyberbullying (e.g., perception of peers' approval of cyberbullying perpetration) predicted intentions to engage in malice and unwanted contact behaviors. The results demonstrate that the TRA is a useful framework for understanding cyberbullying perpetration.

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1. Introduction

A growing body of literature shows that victims and perpetrators of cyberbullying are at greater risk for experiencing a myriad of mental health problems including depressive symptoms (Bonanno & Hymel, 2013), suicidal ideation (Bonanno & Hymel, 2013; Hinduja & Patchin, 2010), and suicide attempts (Hinduja & Patchin, 2010). Despite awareness of the mental health risks associated with cyberbullying, few studies have applied a theoretical framework to understanding the perpetration of cyberbullying. To inform prevention/intervention of cyberbullying behaviors, we applied the Theory of Reasoned Action to explain cyberbullying perpetration among college students.

1.1. Cyberbullying prevalence

Obtaining accurate estimates of the rates of cyberbullying is difficult due to variation in the definition of cyberbullying and discrepancies in its measurement (see Rivers & Noret, 2010, for a discussion). Across studies, the assessment windows (i.e., time frames over which the behaviors occurred), modes of communication included (e.g., cell phones, computer, e-mail), and specific types of behaviors assessed have been inconsistent. With measurement limitations in mind, in a review article, Tokunaga (2010) found 20–40% of youth reported that they had been cyberbullied. Although the percentages have varied, a number of studies have reported those who have been both a victim and a perpetrator of cyberbullying (e.g., about 10%, Hempbill, Tollit, & Kotevski, 2012; 12%, Hinduja & Patchin, 2009; 7%, Kowalski & Limber, 2007; 26%, Mishna, Khoury-Kassabri, Gadalla, & Daciuk, 2012). The overlap between cyberbullying victimization and perpetration could be in part explained by Hinduja and Patchin's (2009) study which found that revenge against bullies was the most frequently reported reason for cyberbullying perpetration.

Fewer studies have examined college students' experiences of cyberbullying; however, recent studies have found between 9% and 11% of U.S. college students have been "cyberbullied" (Kraft & Wang, 2010; Schenk & Fremouw, 2012; Walker, Sockman, & Koehn, 2011) or have experienced repeated harassment, insults, or threats through e-mail or instant messaging (Finn, 2004). Finding slightly higher estimates of cyberbullying victimization, MacDonald and Roberts-Pittman (2010) found 21.9% of college students had been a victim of cyberbullying, whereas 8.6% had been a perpetrator of cyberbullying. In contrast, Aricak (2009) and Dilmaç (2009) found over half (54.4% and 55.3%, respectively) of Turkish college students had been cyberbullied in their lifetime, and

approximately one-fifth (19.7% and 22.5%, respectively) had cyberbullied others. Although prevalence rates among college students vary widely, all studies suggest that a substantial portion of college students are victims and/or perpetrators of cyberbullying.

1.2. Theory of Reasoned Action

Although several recent studies have examined rates of cyberbullying, few studies have employed established theories to explain cyberbullying behavior. One notable exception was Heirman and Walrave's (2012) application of the Theory of Planned Behavior (Ajzen, 2012) in a sample of Belgian adolescents. When originally proposed, the Theory of Reasoned Action (TRA) was applied to behaviors for which individuals have complete control (Ajzen, 2012). TRA was later expanded to include the perception of one's ability to perform a behavior (i.e., perceived behavioral control) and renamed the Theory of Planned Behavior (TPB; Ajzen, 2012). Because college students have access to the Internet and cell phones, nearly all college students have the ability to engage in cyberbullying. Specifically, in the United States, 98% of young adults use the Internet (Pew Internet & American Life Project, 2013), 97% of young adults use their cell phone for texting (Duggan & Rainie, 2012), and cyberbullying can be perpetrated anonymously. Therefore, we believed that the TRA was the most appropriate theory for our purposes. TRA posits that one's attitude toward a behavior and subjective norms of the behavior influence behavioral intentions, which in turn influence behavior (Ajzen, 1985).

1.2.1. Attitudes toward behavior

Attitudes involve how positively or negatively a person evaluates a behavior (Ajzen, 1985). According to Olweus (1993), bullies often have more positive attitudes toward violence and low empathy toward victims. Both studies of childhood (Elledge et al., 2013) and college students (Barlett & Gentile, 2012; Boulton, Lloyd, Down, & Marx, 2012) have supported this argument. For instance, at both the individual and classroom level, Finnish children who had more positive attitudes toward victims were less likely to report having cyberbullied others (Elledge et al., 2013). Among college students in the United Kingdom, those with less accepting attitudes toward bullying were less likely to report engaging in social networking, text, physical, or verbal bullying (Boulton et al., 2012). In addition, less accepting attitudes toward perpetrators predicted less likelihood of verbal or social exclusion bullying (i.e., purposely excluding someone from friends or activities). Social exclusion bullying was also predicted by feeling sorry for victims. Recently, Barlett and Gentile (2012) found both more accepting attitudes toward strength differential (e.g., higher acceptability of "weaker" and "smaller" people cyberbullying bullies to get even) and more accepting attitudes toward anonymity (e.g., greater comfort level with cyberbullying individuals regardless of whether they know the person) predicted more positive attitudes toward cyberbullying perpetration, which in turn predicted cyberbullying perpetration.

1.2.2. Perceived norms

Initially, the term subjective norms (i.e., the degree to which individuals perceive that others apply pressure to engage in the behavior) was used to describe perceived norms in the TRA (Ajzen, 1985). More recently, perceived norms have been expanded to include both subjective norms (i.e., now referred to as injunctive norms, the perception of others' approval or disapproval of a behavior) and descriptive norms (i.e., the perception that others actually perform the behavior; Fishbein & Ajzen, 2010). Although their definitions of normative beliefs differed from the definitions used in the TRA, previous research has examined normative beliefs concerning cyberbullying (Ang, Tan, & Mansor, 2011; Werner, Bumpus, & Rock, 2010; Williams & Guerra, 2007). For example, in a sample of youth, Williams and Guerra found that believing bullying and bystander behavior (i.e., encouraging others to engage in bullying behaviors) is morally acceptable significantly predicted both traditional and Internet bullying. In addition, Barlett and Gentile (2012) found that cyberbullying reinforcement (i.e., positive reinforcement of cyberbullying perpetration) predicted cyberbullying perpetration.

To our knowledge, no studies have examined the relationship between descriptive norms regarding cyberbullying (i.e., perceptions of others' engagement in cyberbullying behavior) and cyberbullying behavior. However, a meta-analysis examining associations between attitudes, subjective norms, descriptive norms, perceived behavioral control, and intentions to engage in a wide range of behaviors found attitudes was the strongest predictor and descriptive norms was the second strongest predictor of intentions to engage in various behaviors (Rivis & Sheeran, 2003). Interestingly, the association between descriptive norms and intentions was stronger for younger (i.e., youth and undergraduate students) vs. older samples.

1.3. Empathy

Although empathy is not explicitly included in the TRA or TPB, Ajzen (2011) has indicated that the association between other factors and specific behaviors may be mediated by the TRA/TPB constructs. Empathy appears to be associated with cyberbullying. For instance, as compared to adolescents not involved in cyberbullying, German adolescents who were either victims or perpetrators of cyberbullying reported lower levels of empathy (Schultze-Krumbholz & Scheithauer, 2009). Although Schultze-Krumbholz and Scheithauer measured overall empathy, three studies distinguished between affective and cognitive empathy as predictors of cyberbullying. Specifically, in a sample of Italian adolescents, Renati, Berrone, and Zanetti (2012) found that compared to victims of cyberbullying and compared to those not involved in cyberbullying, perpetrators of cyberbullying were significantly lower on affective empathy (i.e., experiencing others' emotions). However, no differences in affective empathy were found between cyberbullying perpetrators and those who were both victims and perpetrators of cyberbullying. Cognitive empathy (i.e., understanding others' emotional perspectives) did not differ significantly between groups. Moreover, among Turkish adolescents, Topcu and Erdur-Baker (2012) found that the combination of affective and cognitive empathy mediated the relationship between gender and cyberbullying perpetration. In a study of Singaporean adolescents, participants with low levels of affective empathy and high levels of cognitive empathy reported less frequent cyberbullying compared to those with low levels of affective empathy and low levels of cognitive empathy (Ang & Goh, 2010). In addition, among boys with high levels of affective empathy, boys with high cognitive empathy reported less frequent cyberbullying perpetration than boys with low cognitive empathy. In contrast, for girls with high levels of affective empathy, there was no difference in cyberbullying perpetration between those with high and low cognitive empathy. In contrast to studies that have assessed general empathy, Steffgen, König, Pfetsch, and Melzer (2011) examined empathy in the context of cyberbullying (e.g., "I find websites that make fun of other people funny/amusing;" p. 645) among adolescents in Luxembourg. Perpetrators of cyberbullying reported significantly lower levels of empathy associated with cyberbullying as compared to victims of cyberbullying and participants not involved in cyberbullying.