Cyberbullying, self-esteem, empathy and loneliness

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ARTICLE INFO

ABSTRACT

Cyberbullying is a unique phenomenon, distinguished from traditional bullying by the speed at which information is distributed, permanence of material and availability of victims. There is however a paucity of research in this area, and few studies have examined the factors contributing to cyberbullying behaviour. The present study investigated the influence of self-esteem, empathy and loneliness on cyberbullying victimisation and perpetration. British adolescents ($N = 90$) aged 16–18 years were recruited from Further Education colleges. Participants completed the Revised Cyber Bullying Inventory (RCBI, Topcu & Erdur-Baker, 2010), the UCLA Loneliness Scale (Russell, Peplau, & Ferguson, 1978), Toronto Empathy Questionnaire (TEQ, Spreng, McKinnon, Mar, & Levine, 2009) and Rosenberg Self-Esteem Scale (Rosenberg, 1965) online. Standard multiple regressions revealed that together, loneliness, empathy and self-esteem predicted levels of cyberbullying victimisation and perpetration. Self-esteem was a significant individual predictor of cyberbullying victimisation and perpetration, such that those with low self-esteem were most likely to report experience of cyberbullying. Empathy was a significant individual predictor of cyberbullying perpetration, such that as empathy decreases, likelihood of cyberbullying perpetration increases. These findings indicate that self-esteem and empathy oriented interventions may successfully address cyberbullying behaviour.

1. Introduction

A range of research studies have documented the prevalence, causes and consequences of bullying which constitutes a critical issue within school and adolescent populations (Li, 2007; Olweus, 1993). There are therefore a range of strategies and formal policies available to address this behaviour. In recent years, a new form of bullying, termed cyberbullying has arisen, reflecting the increasing prevalence of digital technology. Though the benefits of this form of communication are acknowledged (Gross, Juvonen, & Gable, 2002), there is also the potential for substantial harm (Sabella, Hinduja, & Patchin, 2013). Definitions of cyberbullying vary, illustrating both the recency of the phenomenon and the rapid technological advances which influence the frequency and form of electronic communication. However one widely accepted definition refers to cyberbullying as "an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself" (Smith et al., 2008, p. 376). Thus cyberbullying is not restricted to one communication type and may involve a range of technologies such as email, instant messaging or personal websites. The psychological and emotional distress experienced by cyberbullying victims is clearly documented (e.g. Kowalski, Limber, Limber, & Agatston, 2012; Tokunaga, 2010) and includes anxiety, depression, and poor physical health. Due to the relative recency of the phenomena, it may be some time however before the long-term consequences of this behaviour are fully understood. Hence cyberbullying represents an important area of concern.

The traditional bullying literature has informed online bullying research by highlighting a range of factors which may increase the incidence of online bullying and the likely consequences of this behaviour. Cyberbullying is though a unique phenomenon that is separate but closely related to traditional bullying (Pieschl, Porsch, Kalh, & Klockenbusch, 2013). Indeed important differences between traditional bullying and cyberbullying exist. In particular, those engaged in cyberbullying are not restrained by time or space and can use multiple media platforms, such as photos, videos, slide shows and interactive polls, to target their victims (Li, 2007). Furthermore, the often anonymous nature of the interaction, speed of distribution, permanence of material and constant availability of victims can exacerbate the negative impact on bullying victims (Willard, 2007). Hence, research specifically investigating cyberbullying is required, rather than extrapolation of findings from the traditional bullying literature. The present study contributes

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to this developing research area and investigates the role of psychosocial factors in cyberbullying perpetration and victimisation.

Cyberbullying is most prevalent in the 'online' generation, which predominantly consists of children and adolescents (Kowalski et al., 2012). Estimates of cyberbullying prevalence vary widely between studies and samples (Patchin & Hinduja, 2012). For example, while Kowalski and Limber (2007) reported that 11% and 4% of students aged 11–13 years were the victims and perpetrators of cyberbullying, Li (2007) identifies victimisation and perpetration levels of 25% and 15% respectively in children aged 11–12 years. Despite inconsistencies in estimations of current prevalence, as technology continues to advance and becomes increasingly available in less developed countries, the number of individuals influenced by cyberbullying is predicted to increase. Rising prevalence of cyberbullying, combined with a paucity of available information and the suggestion that those responsible for adolescent welfare may be ill equipped to address the issue, highlight the importance of investigating the cyberbullying experience.

With regards to the source of the cyberbullying, Li (2007) comments that victims of cyberbullying are predominantly bullied by classmates (31.8%), followed by those outside the school (11.4%). A substantial number (15.9%) are bullied by multiple sources and 40.9% do not know the identity of the bully. With regards to the individuals that are most likely to experience cyberbullying either as a perpetrator or victim, the research is less clear. The traditional bullying literature identifies a range of personal characteristics associated with bullying victimisation or perpetration; these do not however consistently apply to cyberbullying. For example, whereas traditional bullies are most likely to be dominant assertive personalities that are impulsive and often aggressive (Olweus, 1993), technology may attract more socially anxious personalities and those that would not engage in bullying offline (Kowalski & Limber, 2007). Consequently the interventions intended to target those engaged in traditional bullying behaviour may not effectively address cyberbullying. The current study investigates the relationship between cyberbullying and three specific psychosocial factors relating to the presence of offline relationships, attitudes towards the self and emotional connections with others: loneliness; self-esteem and empathy. These factors were selected based on traditional bullying research and potential suitability for psychological interventions.

Perceptions of the quantity and quality of offline social relationships available may influence willingness to engage online or the form of online social interactions. In particular, loneliness which peaks during adolescence (Brennan, 1982) and is conceptualized as perceived social isolation rather than physical separation (Cacioppo & Hawkley, 2003), may impact on the propensity to perpetrate or be the target of cyberbullying. Previous research findings assessing the importance of loneliness in online behaviour are however inconsistent. For example, it has been suggested that online communications reduce loneliness by providing more opportunities to connect with others and increasing control over communication (Valkenburg & Peter, 2011) and that the Internet is favored by shy, socially anxious individuals wishing to expand their social networks in order to decrease feelings of loneliness (Russell, Flom, Gardner, Cutrona, & Hessling, 2003). In contrast, the use of technological communication has also been linked to a decrease in offline social interactions and weak, more superficial social relationships (Subrahmanyam & Lin, 2007). Though few studies have specifically addressed the relationship between cyberbullying and loneliness, Sahin (2012a) reports a relationship between loneliness and cyberbullying victimisation (but not perpetration) in secondary school children. Though Sahin (2012a) did not find a relationship between loneliness and cyberbullying perpetration, these individuals often seek and rely on social support (Srabstein & Piazza, 2008), suggesting that they might feel lonely or rejected. Thus cyberbullying may represent a form of empowerment or aggression against those perceived to have rejected their advances. Further investigation in older adolescents is required.

Social relationships provide a range of benefits that may not be available to lonely adolescents, such as the opportunity to enhance social skills. Empathy encompasses the sharing (Eisenberg & Strayer, 1987) and understanding (Cohen & Strayer, 1996) of another's emotional state. Research has consistently identified relationships between empathy and perpetration of traditional bullying or aggressive and antisocial behaviour, regardless of the type of bullying or perpetrator gender (Ciucci & Baroncelli, 2014; Jolliffe & Farrington, 2006). Specifically, those with low levels of empathy engage in more frequent or severe bullying. In contrast to traditional bullying where perpetrators are exposed to victim distress, online bullying is characterised by anonymity, and lack of direct feedback from the victim, which distances the perpetrator from the victim. Thus it may be less important that perpetrators of cyberbullying are able to distance themselves from their victim. Despite these differences, initial findings suggest that empathy is also a valid predictor of cyberbullying perpetration (Ang & Goh, 2010; Casas, Del Rey & Ortega-Ruiz, 2013; Steffgen, Konig, Pfetsch, & Melzer, 2011). Empathy also influences the likelihood that online 'bystanders' will become involved in cyberbullying (Barlinska, Szuster, & Winiewski, 2013). In comparison, relatively few studies have investigated the relationship between empathy and victimisation. Researchers have recently indicated that victims of cyberbullying report higher levels of empathy (Kokkinos, Antoniadou, & Markos, 2014; Pettalia, Levin, & Dickinson, 2013) which may reflect a greater sensitivity to perpetrator intentions in ambiguous situations. In contrast, Schultze-Krumbholz and Scheithauer (2009) suggest that adolescents that are either victims or perpetrators of cyberbullying exhibit lower levels of empathy than those that are not involved.

Self-esteem, often defined as "a favourable or unfavourable attitude towards the self" (Rosenberg, 1965 p. 15), is particularly important during adolescence when individuals experience a process of identity development. Studies investigating the relationship between traditional bullying and self-esteem have produced inconsistent findings (Patchin & Hinduja, 2010). For example, though low self-esteem is typically associated with high bullying perpetration, other researchers report that perpetrators have higher self-esteem (Salmivalli, Kaukiainen, Kaistaniemi, & Lagerspetz, 1999). Research investigating associations between self-esteem and victimisation is more consistent, and commonly indicate that victims of traditional bullying report low self-esteem (Kowalski & Limber, 2013). With regards to cyberbullying, recent research has reported that victims display lower self-esteem (Cenat et al., 2014; Chang et al., 2013), though some researchers have reported low self-esteem amongst both perpetrators and victims (Kowalski & Limber, 2013; Patchin & Hinduja, 2010) compared to those that were not involved. These inconsistencies may reflect variation in circumstance or samples and illustrate the importance of conducting additional research studies in this field.

The experience of cyberbullying (e.g. prevalence, causes and consequences) may vary widely according to context (e.g. school or the workplace) and individual factors (e.g. differences between children and older adolescents), therefore informed interventions require a more detailed understanding of this phenomenon in specific populations. British adolescents finishing compulsory education at age 16 years can choose to study (i.e. Further Education) for an additional two years before entering university or employment. This age group is of particular interest to researchers due to the paucity of research in this population and the transitional nature of these colleges, as students develop from children to adults. Hence the current study investigates the relative influence of loneliness, empathy, and self-esteem on cyberbullying perpetration and victimisation within a Further Education college sample.