Cyberbullying: The hidden side of college students

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ARTICLE INFO

ABSTRACT

The purpose of this study was to investigate how university students perceive their involvement in the cyberbullying phenomenon, and its impact on their well-being. Thus, this study presents a preliminary approach of how college students' perceived involvement in acts of cyberbullying can be measured. Firstly, Exploratory Factor Analysis ($N = 349$) revealed a unidimensional structure of the four scales included in the Cyberbullying Inventory for College Students. Then, Item Response Theory ($N = 170$) was used to analyze the unidimensionality of each scale and the interactions between participants and items. Results revealed good item reliability and Cronbach's α for each scale. Results also showed the potential of the instrument and how college students underrated their involvement in acts of cyberbullying. Additionally, aggression types, coping strategies and sources of help to deal with cyberbullying were identified and discussed. Lastly, age, gender and course-related issues were considered in the analysis. Implications for researchers and practitioners are discussed.

1. Introduction[3]

School violence is a contemporary topic of discussion and one of the main causes of concern of students and professionals of the educational system. According to the literature, violence in educational settings has increased (Li, 2006), with aggravated consequences for the teaching and learning processes (Glover, Gough, Johnson, & Cartwright, 2000), as well as the socio-affective development of students (Clarke & Kiselica, 1997). Furthermore, school is the place where adolescents spend the majority of their time. Therefore, it is a critical arena of social support and academic development. Some of the literature has shown that students in schools with higher levels of bullying perform worse academically.

(Strøm, Thoresen, Wentzel-Larsen, & Dyb, 2013). This type of violence affects many children and teenagers, at school and at home with the expansion and development of information and communication technologies (ICT). This insecurity is present at different grade levels, including university contexts and therefore, research involving the different forms of bullying is crucial in order to provide a better understanding of how it occurs, how students can deal with it and ultimately, how it can be prevented.

As ICT have increasingly been incorporated into schools because they foster creative and autonomous ways of communicating and interacting, the risks and dangers associated with them also increase (Li, 2006). To specify, the rapid development of ICT (e.g. Internet and cell phones) has created more opportunities for bullies (Li, 2006, 2008) in the sense that the increased use or misuse of these electronic devices among teenagers (Slonje & Smith, 2008), has originated a new form of bullying (Beran & Li, 2007), that is, cyberbullying.

Cyberbullying has a considerable impact on the lives of children and teenagers, considering it emerges at the elementary level and continues to higher education (Hinduja & Patchin, 2009) with increasing frequency and severity in and out of schools (Li, 2006). In light of these issues and because cyberbullying entails negative psychological and physical consequences that may affect interpersonal relationships (Anderson & Sturm, 2007), research should focus on the perceptions students have of their involvement in situations of cyberbullying, along with its associated dangers.

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[3] Text written within the project Cyberbullying. A diagnosis of the situation in Portugal (Reference: PTDC/CPE-CED/108563/2008), funded by FCT, under the Thematic Operational Programme for Competitiveness Factors (COMPETE) and cofinanced by the European Community Fund FEDER. The conclusions and opinions expressed here are the sole responsibility of the authors.

Firstly, this study aims to understand how college students view and report their involvement in situations of cyberbullying. Hence, we present an inventory which could allow us to achieve this objective through the interpretation of its structure. We used Item Response Theory (IRT), which allowed us to calibrate our participants and items on a common scale (DeMars, 2010; Embretson, 1996). This type of measurement presents an analysis of the interactions between people and items, enabling the interpretation of the variables in question. What's more, the interpretations of items in which participants have a higher or lower probability of dominating, have an important diagnostic convenience for our study, along with other group-related ratings, which we consider later.

To complement our first analysis, the present study also explores the dynamics of cyberbullying in order to provide a better understanding of how college students view this phenomena from different perspectives (the roles of the victim, aggressor and observer of victims and/or aggressors). We also consider different aspects that are associated with cyberbullying, such as intimidation and image appropriation that may affect the lives of college students. Moreover, with the analyses presented in this study, we provide insights regarding the means through which cyberbullying occurs (i.e. type of ICT used), as well as the most common types of occurrence in Portuguese college settings.

2. Review of the literature

2.1. From bullying to cyberbullying

Educational contexts are not free of violence and aggression. This type of violence is generally called bullying, referring to behaviors of abuse of power among peers with the intent of harming others in a prolonged manner (Olweus, 1993). Several authors (Olweus, 1993; Smith & Brain, 2000) have defined bullying behavior and some of its characteristics. Essentially, there are three important aspects to consider, namely, the intention to physically, psychologically or socially harm the victim, the repeated aggressive behavior over time; and the unbalanced physical, mental and/or social power between the bully and the victim. Currently, with the development of new ICT, bullying has gained another form of expression, which is entitled cyberbullying, a form of bullying carried out through new technologies (David-Ferdon & Hertz, 2007).

The definition of cyberbullying is not very clear as of yet, but according to Willard (2005, 1), cyberbullying consists in being cruel to another person "by sending or posting harmful material or engaging in other forms of social aggression using the Internet and other digital technologies". Thus, cyberbullying involves the use of ICT as a support for deliberate, repeated and hostile behavior developed by an individual or group, with the intent of harming others (Belsey, 2005). Hinduja and Patchin (2009, 5) presented a very simple definition of cyberbullying which resumes all its main characteristics, that is: "cyberbullying is willful and repeated harm inflicted through the use of computers, cell phones and other electronic devices". Hence, cyberbullying can be considered a bullying problem that takes place in new territory (Li, 2006). Research has shown that the most common cause of cyberbullying appears to be relationship problems (Glover et al., 2000; Spears, Slee, Owens, & Johnson, 2009). Nonetheless, although disruptions in real-world relationships seem to be the source of cyberbullying, the latter also has an impact on relationships. This problem has been presented as a cycle, since relationships cannot occur without interference from a social technological world (Spears et al., 2009).

With the electronic market targeting children from an early age, there have been reports of cyberbullying at the elementary level (Hinduja & Patchin, 2009). However, it occurs most frequently during the transition years between primary and secondary school (Price & Dalgleish, 2010). According to Hinduja and Patchin (2009), cyberbullying is merely schoolyard bullying that has become a more pernicious form of bullying which emerged due to the proliferation of information and communications technology (Hinduja & Patchin, 2010). Cyberbullying can be seen as a continuation of bullying, however, this phenomenon is not limited only to this. It is of a more complex nature. Thus, its typology is varied and multifaceted (Amado, Matos, Pessoa, & Jäger, 2009). Based on Willard's typology (2005) of eight different types of cyberbullying, it is possible to identify two distinct forms. The first is a more direct form of aggression (e.g., Flaming, Harassment, Denigration, Outing), while the second is more indirect and specific to cyberbullying (e.g. Impersonation). Considering these different forms of cyberbullying and the relation between the type of bullying practiced, as well as gender, research has consistently shown a tendency for boys to be more engaged in direct forms of aggression (e.g., physical and verbal), whereas girls tend to engage more in indirect types of aggression, such as social isolation and intentional exclusion from a group (Olweus, 1993). Indirect types of aggression are more frequent in cyberbullying, where girls outnumber boys (Kowalski & Limber, 2007). Victims' rates are also higher for girls (Ortega, Elipe, & Calmaestra, 2009; Ortega, Elipe, Mora-Mérchan, Calmaestra, & Vega, 2009).

There seems to be a relation between bullying and cyberbullying in the sense that victims of bullying are also more likely to be victims of cyberbullying. Williams and Guerra (2007) studied the association between normative beliefs about face-to-face aggression and cyberbullying. Their results showed that the acceptability of face-to-face aggression was positively related to cyberbullying among adolescents. Nonetheless, this relationship was weaker in comparison to the association between face-to-face aggression and the normative beliefs about such behaviors. Gradinger, Strohmeier, and Spiel (2010) speculated that if cyberbullying is considered a form of bullying with the use of electronic devices, then it must co-occur with bullying and thus, most cyberbullies should also be aggressors (Raskauskas & Stoltz, 2007). Moreover, bullying victims are also likely to become the aggressor in cyberbullying (Jang, Song, & Kim, 2014) because it can be a form of retaliation towards their own aggressor (Beran & Li, 2007). In a recent study (Baroncelli & Ciucci, 2014), both traditional bullying and cyberbullying were positively correlated with the corresponding form of victimization, suggesting that students could be simultaneously involved in multiple roles.

Additionally, Ortega, Elipe, and Calmaestra (2009) and Ortega, Elipe, Mora-Mérchan, et al. (2009) found that nearly 2 out of 10 students considered themselves victims of some form of bullying, and only 1 in 10 considered themselves victims of cyberbullying. However, there is a higher percentage of students (1 in 5 students) that are considered victims of both types of bullying. Often, young individuals cannot be classified solely as the "victim" or the "perpetrator", because they may be a victim, a perpetrator, and/or an observer on several occasions (Espelage & Swearer, 2003). Furthermore, compared to non-bullies, bullies have a greater tendency to be cyberbullies. Hence, victims of bullying are also more likely to be victims of cyberbullying. Moreover, cyberbullies are more likely to be victims in cyberspace than those who do not cyberbully (Li, 2006).

Smith et al. (2008) distinguished seven distinct sub-categories according to the way victims are targeted. Thus, the sub categories are: text messages, picture/video clips; phone calls; emails; chat rooms; instant messaging and via websites. More recently, Ellison and Boyd (2013) indicated that cyberbullying is mostly practiced trough the use of social networks, such as Facebook, Twitter, MySpace, You Tube, Google Plus and LinkedIn, which are considered networked communication platforms. Individuals