Does cyberbullying overlap with school bullying when taking modality of involvement into account?

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ABSTRACT

Education professionals and researchers are concerned by school bullying and cyberbullying because of its repercussions on students' health and the school climate. However, only a few studies investigating the impact of school versus cyberbullying have systematically explored whether student victims and perpetrators are involved in school bullying only, cyberbullying only, or both. The aim of the present study was thus to examine the possible overlap, as well as the similarities and/or differences, between these two forms of bullying when taking modality of involvement into account. Individual interviews were conducted with 1422 junior high- and high-school students (girls = 43%, boys = 57%, mean age = 14.3 ± 2.7 years). Results showed that cyberbullying and school bullying overlapped very little. The majority of students involved in cyberbullying were not simultaneously involved in school bullying. Moreover, results indicated that psychosocial problems (psychological distress, social disintegration, general aggression) varied according to the form of bullying. Victims of school bullying had greater internalizing problems than cybervictims, while school bullies were more aggressive than cyberbullies. Given the sizable proportion of adolescents involved in bullying (school and cyber) and its significant relationship with mental health, the issue warrants serious attention from school and public health authorities.

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1. Introduction

1.1. School bullying and cyberbullying

Bullying is a pervasive form of aggressive behavior that has been studied in many countries (Craig et al., 2009; Menesini et al., 2012) and many different research areas, including psychology, medicine and biology, etc. It is devastating for the school climate and more especially for students' wellbeing, leading it to be classified as a major public-health problem in schools (Steffgen, Recchia, & Viechtbauer, 2013; Turner, Exum, Brame, & Holt, 2013). Bullying is an intentional strategy engaged in by one or more student(s), who set up an asymmetrical relationship with a classmate based on physical or psychological power. Olweus (1993) identified three criteria to define bullying: 1) it is an aggressive behavior that is intentional; 2) it is repetitive; and 3) it is an interpersonal relation characterized by a systematic imbalance of power and domination.

Four profiles can be identified in this kind of relationship: neutral, victim, bully, and bully-victim, this last profile referring to students who are the victims of bullying and who bully classmates other than their own aggressors. In schools, bullying can manifest itself either in direct behaviors, be they physical (slapping, pushing, etc.) or verbal (insults; etc.), or in indirect attacks (spreading rumors about a student and/or organizing his/her social exclusion) (Stassen-Berger, 2007).

Over the past few years, a new form of bullying has emerged and caught the attention of researchers and education professionals. The huge advances in digital technology have given young people new means of communicating, but also brought some deleterious social interactions such as cyberbullying (Kowalski & Limber, 2007). Most definitions of cyberbullying come from definitions of school bullying. Thus, this conduct is often described as an intentional aggressive behavior that takes place via new technologies, during which groups or individuals hurt classmates who cannot easily defend themselves (Kowalski & Limber, 2007; Law, Shapka, & Olson, 2010; Slonje, Smith, & Frisén, 2013). Cyberbullying events can occur via cellphones or computers, by means of text messages, e-mails, online social networks (e.g., Facebook®, Twitter®), chatrooms or blogs (Kowalski & Limber, 2007). Like

the bullying that occurs in school, the following four profiles have been identified: cyberneutral, cyberbully, cybervictim and cyberbully-victim.

Although there are many cyberbullying strategies around, Cowie (2013) has identified some of the most frequently occurring ones. Denigration, for instance, consists in posting false information, gossip or rumors about a classmate on a blog or an online social network in order to damage his/her reputation or friendships. Entering the mailbox or the personal online space of a classmate and then usurping his/her identity to send or post material to get that person into trouble or damage his/her reputation or friendships is another strategy that is used. Repeatedly sending mean, insulting or threatening messages is also an example of cyberbullying.

Contrary to the consensus on the three criteria for defining school bullying, there is no single clear and consistent definition of cyberbullying (Patchin & Hinduja, 2013). Moreover, many different words are used in the literature to depict these online practices besides the term *cyberbullying*, including *online harassment* (Wolak, Mitchell, & Finkelhor, 2007), *electronic bullying* (Kowalski & Limber, 2007; Raskauskas & Stoltz, 2007), *Internet harassment* (Ybarra, Espelage, & Mitchell, 2007; Ybarra, Mitchell, Wolak, & Finkelhor, 2006) and *e-bullying* (Lam & Li, 2013). However, it should be noted that some of the researchers who initially used these other notions, now employ the word *cyberbullying* (e.g., Kowalski, Giumetti, Schroeder, & Lattanner, 2014; Ybarra, Boyd, Korchmaros, & Oppenheim, 2012).

The heterogeneity of the devices considered in studies of cyberbullying is another example of the divergence in definitions. Some researchers have investigated behaviors via cellphones and/or computers (Kowalski & Limber, 2007; Ortega, Elipe, Mora-Merchán, Calmaestra, & Vega, 2009; Raskauskas & Stoltz, 2007), others have only taken one of these devices into account (Aricak et al., 2008; Wolak et al., 2007).

These observations probably go some way to explaining the disparity in the figures for cyberbullying prevalence. Estimated rates of cyberbullying vary from 11% to more than 50% in studies considering cybervictimization, cyberperpetration, and both (Kowalski et al., 2014).

Despite the disparities in estimated cyberbullying prevalence around the world, one finding that appears to be common and convergent is that involvement in bullying in cyberspace is associated with psychosocial problems, problematic Internet use and poor school performances (Gámez-Guadix, Orue, Smith, & Calvete, 2013; Kowalski & Limber, 2013).

In France, very few data are available concerning the number of students involved in cyberbullying and the attendant psychosocial difficulties. Even so, this form of aggressive behavior may well affect many French adolescents, as in France, 95% of 9- to 16-year-olds use the Internet at home (Livingstone, Haddon, Görzig, & Ólafsson, 2011), thus increasing the risk of being involved in cyberattacks (Kwan & Skoric, 2013).

1.2. Divergent considerations

Currently, one of the main questions being explored in the scientific literature concerns the degree of overlap between cyberbullying and school bullying: do they constitute the same kind of aggressive behavior, with cyberbullying being a modern and electronic form of school bullying? Or are they two forms of aggressive behavior that need to be differentiated? Studies have yielded very divergent results. Some of them suggest that cyberbullying is closely linked to school bullying, possibly constituting an extension of it, whereas other studies indicate that cyberbullying does not mirror school bullying. The arguments evoked in these studies cite

observed prevalence, as well as the psychosocial characteristics associated with the various profiles in these two forms of bullying.

Studies suggesting that school bullying and cyberbullying considerably overlap (Juvonen & Gross, 2008; Raskauskas & Stoltz, 2007; Smith et al., 2008; Wang, Iannotti, & Nansel, 2009) have shown that victims in schools tend also to be victims in cyberspace, and cyberbullies are often students who perpetrate bullying at school. For example, in the study by Raskauskas and Stoltz (2007), 94% of cyberbullies were also school bullies, and 85% of cybervictims had a victim profile at school. One year later, Juvonen and Gross (2008) published results revealing similar tendencies: among the 1454 adolescents they sampled, 85% of those involved in cyberbullying were also involved in school bullying. These data led the authors of these articles to hypothesize that cyberbullying is the cyberspace extension of school bullying. In line with this hypothesis, other surveys have revealed that students who are victims of school bullying also engage in cyberbullying as bully, often attacking their school aggressors in cyberspace (König, Gollwitzer, & Steffgen, 2010). The fact that more than half of all cyberbullies or cyberbullies/victims are the target of bullying in schools further supports the idea of extension (Ybarra & Mitchell, 2004).

Other arguments help to sustain the overlap hypotheses. Thus, some studies have shown that students matching the different school and cyberbullying profiles share similar psychosocial difficulties. As an illustration, it appear that being a cybervictim and being a victim of school bullying are both significant predictors of social anxiety (Juvonen & Gross, 2008). Moreover, both forms of bullying lead to the same distress for victims (Smith et al., 2008) and share interrelated predictors (Casas, Del Rey, & Ortega-Ruiz, 2013).

However, all too few studies have carefully considered the modalities of bullying involvement, that is, whether students engage in school bullying only, cyberbullying only, or both (Kowalski et al., 2014; Olweus, 2012). Research in this area of investigation needs to control for the fact that a student involved in cyberbullying could also be engaged in school bullying, but this precaution is rarely taken. As a consequence, in many studies that fail to control for involvement in both forms of bullying, the psychosocial problems found to be associated with cyberbullying could, in fact, be mainly linked to school bullying (or vice versa). As stated by Olweus (2012), there is a need to find out the effects of cyberbullying independently of the possible effects of school bullying. However, this issue has not received "much systematic and useful research attention so far" (Olweus, 2012).

Whereas some studies have shown a close relationship between school bullying and cyberbullying, others led to differentiate these two forms of aggressive behavior. Contradicting the prevalence estimates mentioned above, Ybarra, Diener-West, and Leaf (2007) demonstrated that most victims of cyberbullying are not victims at school. Similarly, Kowalski and Limber (2013) found that most students involved in school bullying (77% of school victims, 74% of school bullies and 52% of school bully-victims) are not concerned by cyberbullying at all. Moreover, if cyberbullying were indeed an extension of school bullying, then homeschooled young people would be protected from cyberbullying. However, cybervictimization rates do not differ significantly between homeschooling and public/private schooling (Ybarra, Diener-West, et al., 2007; Ybarra, Espelage, et al., 2007).

This second consideration is also supported by research on the difficulties associated with school bullying and cyberbullying. Thus, Wang, Nansel, and Iannotti (2011) found a differential association of depression with each of these aggressive behaviors: in school bullying, both victims and bully-victims had higher levels of depression than bullies, whereas in cyberbullying, only cybervictims exhibited higher levels of depression, and to a far greater