Cyberbullying Definition and Measurement: Some Critical Considerations

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Cyberbullying Definition and Measurement

Some Critical Considerations

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Cyberbullying is reported 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).

This definition implies that cyberbullying is similar to traditional bullying, but involving the use of new communication technologies. Its hostile trait derives from the aggressive nature of the behavior. The intention refers to the degree of awareness of harming others, although we might argue to what extent perpetrators are aware of the seriousness of their acts. The indirect nature of cyberbullying makes it difficult to evaluate the intentional or reactive nature of the attack. Moreover some authors stated that cyberbullying, even if a single individual act, can be circulated widely or copied by others meeting the criteria of repetition and frequently creating an imbalance of power. It is hard to detail the concept of imbalance of power in the cyber context, since in face-to-face bullying it was derived by the higher physical or psychological strength of the bully or by a numeric criterion (the number of bullies in comparison with just one victim). How can we define in the cyber context? Can we refer just to a higher technological ability of the bully or, conversely, to a higher rank position of the bullies in the virtual community?

Wolak, Finkelhor, Mitchell, and Ybarra (2007) and Ybarra and Mitchell (2004), showed that in many cases youth harassed online or by phone were not distressed or could easily block the harasser. The easy termination of these episodes suggests that part of online harassment may not involve imbalance of power in which victims have difficulty defending themselves from aggressors. It also involves other criteria to distinguish between bullying and harassment such as the number of incidents and the degree of reported distress by the victim. In relation to this issue scholars have proposed alternative terms, such as online, cyber, Internet harassment, or attacks (Dooley, Pyżalski, & Cross, 2009; Patchin & Hinduja, 2006; Wolak et al., 2007).

Measurement

Related to the definitional issues there are measurement issues. Research on cyberbullying is growing around the world, focusing on the prevalence of the phenomenon, the relation between traditional and electronic bullying, and on possible correlates or risk behaviors related to cyberbullying (see many papers in this issue). But there has been little focus on the measurement issue of cyberbullying. Indeed in bullying research generally, some scholars have claimed that insufficient concern is paid to psychometric issues in bullying research as well as to the need for more detailed comparison between different methodologies (Card & Hodges, 2008; Chan, Myron, & Crawshaw, 2005).

There are two families of measures frequently used to study traditional bullying and victimization: Normative and ipsative measures (Caspi, 1998; Pellegrini, 2001). Normative measures provide information about what other individuals think of those bullying or being bullied; they measure an individual behavior by asking the perception of others. Peer ratings and peer nominations are clear examples. Ipsative measures provide a personal picture of bullying and victimization, informing us about individuals' perception of their experiences; they are represented by the large class of self-report questionnaires, widely used to measure prevalence of bullying and victimization (Solberg & Olweus, 2003).

As with traditional bullying research, in cyberbullying studies the most used measures have been self-report questionnaires, with key global questions. In other cases, the focus was on types of behavior, such as receiving rude or nasty comments from someone while online, being the target of rumors spread online, or receiving threatening or aggressive comments (Katzer, Fetchenhauer, & Belschak, 2009; Menesini, Calussi, & Nocentini, 2008; Ybarra, Diener-West, & Leaf, 2007).

Given the complex definition of the construct, at present its operationalization is quite difficult. Some critical points are related to the use of global and sometimes unique items to detect the degree of involvement in the role of cyberbullies

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and cybervictims, to the complexity of the definition which can be understood differently among different populations, and to the complexity and accelerated evolution of new technologies which makes any classification often obsolete.

Difficulties with using global key questions on bullying received or perpetrated have been reported in the literature on traditional bullying, including age and cultural differences. Two studies addressing cultural and linguistic differences (Smith, Cowie, Olafsson, & Liefooghe, 2002; Smorti, Menesini, & Smith, 2003) found differences across terms and countries regarding the width of the semantic area of terms for 'bullying' and how close such terms are to its western scientific definition. Monks and Smith (2006) addressed age differences in pupils' and parents' definitions of the term 'bullying', and found that younger children use a broad distinction between aggressive and nonaggressive acts whereas adolescents and adults tend to be more discriminative and concerned about power differences, repetition of actions, and physical and nonphysical acts. Thus, in traditional bullying there are difficulties in relying just on global definition and on the global questions about this behavior. Being aware of methodological difficulties in the traditional bullying area, further efforts are needed to improve our ways of measuring cyberbullying.

Also, in case of self-report methodology, issues related to social desirability of responses can affect the measurement; students may be reluctant to report an act that is socially undesirable such as (cyber) bullying. Studies conducted with Italian adolescents (Menesini, Modena, & Tani, 2009; Menesini, Nocentini, & Fonzi, 2007) showed a lack of consistency between the global key questions and the other statements of involvement in harassing acts. We might speculate that some adolescents hesitate to label themselves as bullies or as victims, while they could claim to have been involved in one or more bullying episodes as actors or as victims. Other studies, although focused on workplace bullying, have reported the same inconsistency between the two measurement strategies (global evaluation vs. single behavior) (Salin, 2001).

Solberg and Olweus (2003) argued that one single item in the case of the Olweus Bully/Victim Questionnaire can be a reliable and economical measure of prevalence. Arguments in favor of a single-item measure are practical reasons related to quicker administration of the measure and lower cost of data processing. From a theoretical perspective, Rossiter (2002) argues that a single-item measure is sufficient if the construct consists of one concrete object that is easily and uniformly imagined.

An alternative strategy to questionnaires and the global questions can be multiple-item scales asking students about the frequency of specific behaviors representing the construct of bullying (Austin & Joseph, 1996; Espelage, Bosworth, & Simon, 2000; Peskin, Tortolero, & Markham, 2006). This can give us a more valid, accurate, and analytical measure as compared to the estimation you can have with a single item. According to Nunnally (1978), multiple-item measures are considered more valid as it is very unlikely that a single-item can fully represent a complex theoretical concept. This multiple-item approach can be more accurate: Single-item measures often lack precision because they cannot discriminate among fine degrees of an attribute. Finally, multiple-item measures can be more reliable: Single-item measures are usually less reliable and more prone to random error. Chance or random error is involved in any type of measurement, however, "this unreliability averages out when scores on numerous items are summed to obtain a total score, which then frequently is highly reliable" (Nunnally, 1978, p. 67).

Some limitations should be taken into account also in the use of multiple-item scales. First, not all possible bullying acts are necessarily included in that list. This problem is related to the theoretical definition of the phenomenon. Second, not all items are necessarily of equal severity: While some of them may occur more regularly without being perceived as bullying, others may have very long-lasting effects even though they occur only occasionally.

Relatively recent statistical methods, such as confirmatory factor analysis (CFA), can help to overcome some of these problems. For instance, this method can evaluate the construct validity by its invariance across different groups (gender, ages, and cultures) and to compare competing measurement models in order to identify the most appropriate score interpretations. CFA enables one to determine whether all the items are equally good representations of the construct or whether some items are better than others through a comparison of three measurement models (parallel, tau-equivalent, and congeneric).

Overall, further theoretically and empirically oriented efforts are needed to overcome some of the difficulties in the area and to try to grasp more directly the meaning of cyber problems for adolescents of the digital era.

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