

## Identification and Treatment of Cyber Bullying

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### Abstract

Within the last decade, cyber Bullying has become a popular topic discussed in the mainstream and educational literature bases, and rightfully so, since the effects of this form of peer harassment can be devastating for its victims. A number of articles and books have explored the definition, characteristics, and effects of electronic victimization, but less attention has been devoted exclusively to the aggressors themselves. The purpose of this article is to summarize what is known about cyber Bullies from the existing literature and identify interventions for bullying that have received empirical support and which may have potential for working with perpetrators of cyber Bullying.

**Keywords:** Cyber bullying; Bully; Victim; Intervention

### Introduction

In the last few years, the results of studies and well-publicized tragedies have exposed the serious threat that electronic forms of aggression pose to the well-being of children. That threat is somewhat different from the danger posed by traditional schoolyard bullying because technology has intrinsically redefined the bully/victim transaction, expanding it from a physical context to an electronic medium, including e-mails, instant messages, text messages, and social media [1]. Electronic devices broaden bullying from its traditional social context, fundamentally transforming the dynamics of the interactions that occur between aggressors and victims.

Although bullying has historically been a common childhood problem [2], electronic devices have allowed perpetrators to harass more easily and effectively because such tools provide an unprecedented level of access to victims. Studies investigating the prevalence of cyber Bullying suggest that it affects anywhere between 11% [3] and 75% [4,5] of children and adolescents. Williams and Guerra [3] found that 9.4% of the children in their study of 3,000 5th, 8th, and 11th grade students indicated they had bullied peers through e-mail or instant messaging. The Pew Research Center (2007) concluded that about one third (32%) of all adolescents using the Internet report being targets of a range of irritating and possibly dangerous online activities, including receiving threatening messages, having their private emails or text messages forwarded without consent, having an embarrassing picture posted without permission, or having rumors about them spread online [6].

Like other forms of bullying, cyber Bullying appears to be a phenomenon that occurs internationally, with one study suggesting higher rates of cyber bullying among East Asian adolescents in comparison to adolescents of European descent [7]. Indeed, in response to this common problem of youth, countries such as Belgium have developed initiatives to develop research-based anti-cyber Bullying efforts [8].

### Cyber Bullying as a Form of Aggression

From a broad perspective, cyber Bullying is aggression perpetrated by individuals utilizing electronic devices or environments such as cell phones, e-mail, text messaging, Internet Web sites, chat rooms, blogs, and online videos. Cyber Bullies use these instruments as tools to insult, mock, threaten, intimidate, or spread rumors about a victim. However, there is currently no generally accepted definition of cyber Bullying. Attempts to define it have relied upon the traditional definition of school bullying as a point of departure [9-13]. In this traditional definition, bullying occurs when an individual uses an advantage of personal power to inflict harm on a victim, either physically, verbally, or indirectly through manipulation of relationships, with the aggression typically occurring repeatedly across time [2,14-17].

Some researchers have begun to recognize the inadequacy of the traditional model of bullying applied to electronic forms of aggression, at least in terms of operationalization have led this discussion and have provided some valuable insights [12]. Their groundbreaking study appears to be the only investigation that has focused on examining how well the traditional model of bullying applies to electronic harassment. Indeed, the harmful intentions of the bully, the frequency of the aggression, and the existence of an imbalance of power are all difficult to establish in electronic harassment due to the ambiguity and anonymity involved in this form of communication.

This is perhaps most evident with regard to a bully's intent to cause harm. Because acts of electronic aggression can reach a wider audience, a perpetrator may be capable of causing more harm than could be caused in face-to-face bullying. However, because the perpetrator and victim cannot see each other, the perpetrator may not believe that serious harm is being inflicted upon the victim. The victim's emotional reaction to the aggression often remains obscured, leaving the perpetrator vulnerable to miscalculating the effect of his or her actions [10-13]. Conversely, the intended victim may not necessarily feel harmed by an aggressive act because the aggression has occurred online and does not involve the physical intimidation that may occur in person [12]. In the study, for example, most of the victims did not feel distress over the electronic harassment that they

experienced. On the other hand, the intended victim may feel far more threatened than in a face-to-face encounters because he or she may not know who the source of the bullying is or whether there are multiple perpetrators [10].

Bullying may be occurring in either instance, but the nature of the communication prevents the determination of the extent of the harm that is intended or whether the threat that is felt by the victim is commensurate with what is intended by the perpetrator. The ambiguity in such instances is enough even to circumvent the law [10,12,18,19]. Researchers have noted that a perpetrator may electronically threaten a victim using carefully worded language that appears entirely innocuous on the surface, even though the victim correctly recognizes it as a serious threat. From a legal standpoint, communications like these are not likely to be viewed as threats because the potential harm is implied rather than overtly stated.

Similar ambiguity exists with regard to repetition and imbalance of power. David-Ferdinand Hertz [9] argue that it is difficult to determine precisely what constitutes repetition when aggression occurs through electronic methods like the Internet and text messaging. In these forums, messages can be viewed by others or viewed repeatedly by the victim, and other aggressors can join in with new contributions at future points in time, blurring the boundary of what might be considered a single incident. Repetition is also difficult to establish in cases where the perpetrator personally sends one message, but then programs his or her computer to continue to re-send the message to the victim at regular intervals [19]. Here we might invoke Olweus view that one act can still constitute bullying if it is particularly aggressive in nature [2]. We do know that repetition appears to be an important factor relating to the level of distress experienced by victims of online harassment [12]. However, it is difficult to fit cyber bullying into a model that requires repetitive acts of aggression when it is unclear by which the manner of repetition is determined in some situations.

In a similar vein, the ambiguity that occurs in electronic communication makes it extremely difficult to gauge whether or not an imbalance of power exists. In some situations, anonymity or the ability to assume different online identities might increase a bully's power to act aggressively toward a person he or she intends to victimize [9]. However, in other situations, the bully's power advantage can be neutralized because the impersonal, long-distance nature of communication may permit a victim to ignore or cut off the offensive relationship [12].

Considering such issues, a more narrow definition of cyber Bullying is needed. There has been an unfortunate tendency in the literature to use loosely the term to refer to a wide range of aggressive acts, even though it is becoming clear that bullying is only one of a number of traditional forms of harassment that can be perpetrated online. Indeed, if bullying can be described as a unique subset of aggression then cyber bullying might in turn be described as a unique subset of electronic aggression [17]. Perhaps one way to differentiate between true cyber bullying and its less-related variants is to focus the nature of the target. Since bullies deliberately select specific victims rather than attack any accessible person, it seems reasonable to argue that acts of electronic harassment that involve generalized, random, or unknown target choices do not constitute true acts of bullying, even though the medium that is used might be the same [20]. The larger problem currently facing educators is how to differentiate cyber bullying from other forms of aggression that often look very similar on a behavioral level, like cyber stalking and online sexual harassment.

## The Emerging Profile of Cyber Bullies

### Demographic and psychosocial characteristics

A number of studies have attempted to enumerate the demographic characteristics of cyber bullies, but the findings are largely contradictory. This is especially the case with regard to age of predominance [3,8,11,13,21-29]. Only one study indicated a preponderance of female perpetrators [10].

At first glance, the fact that males may constitute the majority of cyber bullies seems counterintuitive, since electronic devices appear to be ideal venues for perpetrating indirect and relational aggression (e.g., spreading rumors, gossiping, manipulating). Such forms of bullying tend to be more representative of female aggression during the late childhood and adolescent years [14-16,30,31]. A German study of 7th to 10th graders utilizing self-report methods found significantly more use of relational aggression among cyber bullies and victims, but the sample size was small (n=71) [32]. Another study investigating the connection between cyber bullying and relational aggression among adolescents (age 12 to 17) that utilized sociometric methods and a much larger sample (n= 1431) found no significant association [25]. Obviously, considerably more research is needed before a clear understanding of demographic variables and cyber bullying is achieved.

On the other hand, research that has attempted to describe the psychosocial characteristics of cyber bullies has yielded more congruent results. In their survey of youth who use the Internet, Ybarra and Mitchell [13] found that in addition to more Internet use than was typical, online aggressors tend to report weak bonding with their caregivers and involvement in delinquent activities like property destruction and contact with police. It appears that cyber bullies often demonstrate elevated levels of social anxiety, though not higher than their victims [10]. Cyber bullies tend to lack the social support of peers [3,25], are often involved in substance use [13,23] and most often engage in cyber bullying at home and when alone, particularly if they are male [21]. Youth engaged in the process of identity formation who experiment with different identities online are more likely to engage in cyber bullying [8]. Cyber bullying also appears to be correlated with justification for violence, exposure to violence, proactive aggression [25] and assaultive behaviors [23].

### Behavior patterns

It appears that a large percentage of cyber bullies, perhaps even a majority, choose to hide their true identities [10,21,29]. Conversely, this also means that many do not hide their identities. This detracts from the common perception that a perpetrator's main reason for employing electronic media is to take advantage of the cloak of anonymity that they offer. Juvonen and Gross [4] for example, found that a full 73% of victims in their study were either mostly or completely certain of their bullies' identities. Thus, it appears that some cyber bullies want to be known, while others do not. This divergence may provide important insights into the psychological makeup and individual motives of the cyber bully.

The choice of covert methods obviously suggests a desire to maximize the advantages of concealed aggression, a fear of being discovered, an attempt to provoke more fear in victims, or an attempt to try on different identities. The latter may hold particular significance for middle and high school children, since Erikson argued that identity formation is the primary developmental task of

adolescence [33]. Identity concealment does not necessarily mean that the perpetrator and victim have no association in person, however. Even if an online perpetrator's identity is known, the cyber bullying will not necessarily be discovered by parents or caregivers. Cyber bullies are usually protected by their victims, because victims frequently fear that their Internet privileges will be revoked if the victimization is discovered [4].

Another important behavioral pattern concerns versatility between different environments, since some cyber bullies appear to bully exclusively online, while others engage in acts of aggression both online and offline. The proportion of cyber bullies who fit into the first category is difficult to determine due to definitional issues. Most harassment that occurs purely online appears to involve single incidents rather than patterns of repetition which means they do not conform to the standard definition of bullying [12]. However, the number of pure cyber bullies is believed to be small [34].

On the other hand, the overlap between traditional bullying and cyber bullying has been consistently corroborated in the research [3-5,11,22,23,27,32,35,36]. However, no clear conclusion has been reached regarding the prevalence of the overlap [4,37] and its exact nature is not entirely understood. However, the gender of the aggressor may provide important insights. Erdur-Baker [27] has found that boys are more likely than girls to be bullies and victims in both environments, indicating a significant association between environments that does not exist for girls. Grading et al. [34] also found that males who were bullies both online and offline were statistically represented more often than expected by chance in their study. These results seem to indicate that cyber bullying may serve different purposes in the overall aggressive patterns of males and females.

Finally, cyber bullies also appear to have a history of entanglements with bullying, either as a perpetrator or victim. The finding that aggressors who bully in person also have a propensity to bully electronically is not surprising. Li [29] for example, found that nearly 30% of traditional bullies also became cyber bullies. Another study found that youth who engaged in traditional bullying in the most recent six months were 2.5 times more likely to reveal that they engaged in cyber bullying, and five times more likely to bully online than non-aggressive children [23]. On the other hand, the finding that victims of any form of bullying may be more likely to become cyber bullies is more intriguing and controversial.

A number of investigations have confirmed that cyber victims often become cyber bullies [8,12,27,36]. In their study, Wolak, et al. found that when compared with individuals who had not been harassed, victims of known cyber bullies were five times more likely to use the Internet to attack someone else with whom they had a conflict. Walrave and Heirman [8] found that victims of cyber bullies were nine times more likely to engage in cyber bullying. Indeed, there is evidence that a common reaction to being bullied electronically, besides ignoring it or pretending to ignore it, is to "bully the bully" [23]. There is reason to believe that cyber victims often retaliate within the online environment in which they were attacked, rather than utilizing some other medium [5].

Some research also suggests that children who are victimized in person may retaliate against their aggressors online, where it is safe to do so [13]. The electronic device, it would seem, provides them with a way to change their role in the aggression equation by becoming a bully themselves. Theoretically, electronic devices may equalize power

imbalances that exist between bullies and victims, allowing socially anxious victims a way of exacting revenge on bullies [10]. However, other research seems to refute these findings [4,34-36]. Results from several of these studies suggest that bullies and victims tend to remain in their roles across environments, with schoolyard bullies becoming cyber bullies and schoolyard victims becoming cyber victims. One study [4] even found that the majority (60%) of victims who were bullied in school also chose to retaliate in school rather than online, while 28% retaliated in both environments.

One explanation for the disparity may involve the specific environment in which the retaliation takes place. Even though it was found that bullies and victims retained roles across environments, their research also indicated that being victimized in chat rooms and websites was associated with being a traditional bully [35]. These researchers surmise that these particular environments may provide the greatest degree of anonymity, and therefore would likely be places where victims feel most free to take revenge.

### Cyber bully typologies and motivations

It appears that the traditional bully typologies identified by Olweus [38] which include aggressive bullies and bully-victims are represented within the population of cyber bullies. Aggressive bullies are children who engage in standard schoolyard bullying. They utilize a distinct form of aggression that is typically not resulting from conflict between individuals, but instead is characterized by calculated attempts to dominate and control others [39] therefore comprising a form of instrumental or proactive aggression [20]. Such aggression is unprovoked, coldly planned, and executed without emotion [20]. Rather than indiscriminately lash out at any available boy or girl; these individuals carefully screen a group of peers for suitable victims, with whom they cultivate unique dyadic relationships [20].

Olweus research [2] has shown that such individuals typically exhibit a combination of personality traits that include limited empathy, a desire to dominate others, a positive attitude toward violence, and impulsivity. As if to reinforce the threat they already represent, these individuals also typically possess what are considered a number of healthy qualities, like good self-esteem, a positive view of self, unusually little or average levels of anxiety and insecurity, and average or slightly lower than average popularity among peers [2]. Aggressive bullies are children who attack, but who are not likely to be victimized them. It appears that many aggressive bullies extend their repertoire of harassment to the electronic world, where they can continue to torment victims at leisure until personal contact is renewed.

Bully-victims proactively harass others, but they are preyed upon by bullies as well, coinciding with the consistent finding that many electronic aggressors are simultaneously both bullies and victims [5,8,12,13,32,35,36]. Perhaps due to their volatile combination of impulsive reactivity and proactive victimizing, bully-victims have been found to be even more aggressive than bullies themselves [40]. Bully-victims are generally weaker than those who bully them but are stronger than their own victims and are among the most disliked and rejected children in peer groups [41-43]. They report more bullying and victimization than either bullies or victims individually a phenomenon that appears to hold true in electronic environments as well [1,44]. However, bully-victims who operate solely within electronic environments appear to be rare, indicating that most are bullies and victims in person as well as online [34]. Twyman et al. [45] found that approximately two out of every three electronic bully-

victims were traditional bully-victims simultaneously. Significantly, children who bully and victimize in both environments have been found to experience the most severe adjustment problems [34].

This leads to an important question: do traditional bullies and cyber bullies have similar or different motivations Olweus [2] found that traditional bullies are motivated by the need for domination, feelings of antagonism toward their surroundings, and the enhanced social status or material rewards they obtain from engaging in aggressive behavior. Such individuals are obviously undeterred by engaging in direct personal contact with their victims. Rather, personal involvement may be an important motivator due to the psychosocial and material rewards they derive from the bully/victim transaction [2]. A study of the psychological needs associated with cyber bullying conducted by [28] that used a Turkish version of the Adjective Checklist [46] indicated that aggression (“engaging in behaviors which attack others”) and succorance (“soliciting sympathy, affection, and emotional support from others”) both predicted engagement in cyber bullying [26]. Dilmaç [26] surmises that a bully’s drive for supremacy is achieved by engaging in online behaviors that are rooted in this combination of aggression and attention-getting behaviors. Although cyber bullies are not able to obtain the same material rewards achieved by traditional bullies, these results suggest that electronic devices do help cyber bullies obtain the social rewards that traditional bullies exact from real audiences and victims.

However, as it is note that, not all bullies become cyber bullies, indicating that there is some factor or factors that separate those who engage in online aggression from those who do not [35]. They speculate that these factors might include aspects of personality, stage of development, level of supervision or characteristics of the child’s peer group [35]. Another factor might involve the immediacy of the rewards. Dooley, et al. [47] theorize that the rewards for cyber bullying are often delayed because the bully is required to wait for the reaction of the victim rather than being able to directly and viscerally view the effect of their harassment, as they would in person. Such a delay may only serve to intensify their feelings of excitement and anticipation. If Dooley, et al. are correct, then there may be important differences in how traditional bullies and cyber bullies experience and process their acts of aggression.

## Interventions for Cyber Bullying

Research has not evaluated the effectiveness of individual interventions or school-wide approaches for reducing cyber bullying; however the literature was reviewed on whole-school bullying prevention programs to identify the specific components that have received empirical support for reducing cyber bullying [5]. The specific interventions identified are subsequently listed and described:

### Digital literacy

Given that, increasingly, adolescents and children are online, at an earlier age [48,49] and using digital technologies, it would seem imperative to educate them in using these technologies safely and wisely, including avoiding becoming victims of cyber bullying. Of note (Jones) [50] explain that since there are trend differences by gender (e.g., online communication networks seem to provide an environment that is particularly conducive to the harassment behaviors used by girls) the messages and targets of the prevention activities should be adjusted accordingly.

### Supportive school culture

This was as an intervention of key importance, as it suggests that creating a supportive school culture may reduce cyber bullying for several reasons [48]. First, promoting positive relationships between students and teachers may be helpful since perpetrators of cyber bullying report feeling uncared for by their teachers [51]. Encouraging bystanders to report and intervene when observing cyber bullying is essential as Li [52] found that while 14% of Canadian high school students reported witnessing cyber bullying many times or almost every day, only 23% of this group attempted to intervene and 35% tried to help or befriend the cyber bullied student.

#### Psycho education about cyber bullying

Students may be reluctant to report cyber bullying in comparison to traditional bullying [53] primarily because they may believe that the school cannot or will not assist them. Consequently, schools must educate students both about the policies regarding cyber bullying and the school officials’ willingness to address the issue. Cross et al. [47] found that teachers thought most educators at their school needed additional training to effectively address the various forms of bullying, including cyber bullying.

#### Videos as an educational tool

Although a meta-analysis about bullying intervention programs conducted by Ttofi [53] indicated that curriculum materials about bullying were not an effective component of whole-school bullying prevention programs, the use of videos to increase student awareness about bullying was associated with a reduction in bullying, suggesting that educational materials may need to be more interesting for students. Schools may consider use of videos to enhance students’ awareness of cyber bullying, especially in light of psycho educational Internet safety interventions that were found to increase Internet safety knowledge [54].

### Parent training

Ttofi and Farrington [53] found that parent training was one of the components of whole-school programs that was associated with a reduction in bullying. Many parents may simply need basic training to increase their technological sophistication to monitor their child’s use of technology. Some parents may have the motivation but lack strategies for talking to their child about cyber Bullying. Schools have been encouraged to help parents learn to promote their child’s social problem-solving for understanding and dealing with aggression and bullying [55] and such interventions should also provide parents with specific training for talking with their children about cyber bullying.

For example Bostic and Brunt [56] recommend that parents be trained to discuss possible cyber bullying scenarios with their child, asking their child what would he or she say to another child who had been cyber bullied, speculate about the thoughts and feelings of the victim and perpetrator, and what he or she might do in that situation. However, in some families, a child’s engagement in cyber bullying may be related to parent-child issues, as research has found that children’s use of online harassment has been associated with poor parental monitoring and poor parent-child relationships and frequent parental discipline, as perpetrators are more likely than non-perpetrators to report that their parent yelled at them and that their privileges were restricted most or all of the time [13]. In such cases, teachers may refer the child and parent to the school psychologist, school counselor, or school counselor who may be in a position to address the parent-child

relationship that underlie the problem. For additional information on this topic [55] discuss strategies for consulting with the parents of victims and perpetrators.

## Summary and Conclusions

Clearly, there is a great need for empirical studies to support cyber bullying interventions. Indeed, research has not evaluated the effectiveness of individual interventions or school-wide approaches for reducing cyber bullying. However, it is important to recognize that reviews of school-based bullying programs indicate that individual interventions with perpetrators tend not to be effective [57,58]. In comparison, reviews of whole-school interventions have yielded at least mild to moderate positive effects.

The whole-school approach to bullying uses a social-ecological perspective, seeking to modify the various environments in which children are “nested,” targeting the school level (classroom and school climate, behavior and peer support), classroom level (curriculum), family environment (collaborating with parents), and the individual level (working with frequent perpetrators and victims of bullying; [59]. The results of a recent comprehensive meta-analysis indicated that whole-school bullying prevention programs achieved a 20-23% average reduction rate in bullying [53]. Thus, it seems necessary for educators to begin incorporating cyber bullying in a significant, meaningful way in whole-school anti-bullying programs in order to begin addressing the perpetration of this acute and grave form of aggression.

As a final note, because the reach of cyber bullying extends beyond the physical context, there must be a recognition by educators and parents that the emotional impact of such victimization may be especially significant, and that the problem of perpetration and victimization may extend into adulthood [60]. Consequently, it is imperative that the scope and magnitude of prevention and intervention efforts regarding cyber bullying be reflective of the severity of the damage that can potentially be caused.

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