

Review of the Status of Cyberbullying and Cyberbullying Prevention

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ABSTRACT

Cyberbullying may be one of the “diseases” of the 21st Century. Despite efforts to curtail its incidence and prevalence over the past 20 years, its direct and indirect harmful effects have made it a public concern about the wellbeing of children, adolescents, and adults. Empirical studies as well as psychological theories have addressed different aspects of cyberbullying (e.g. characteristics of victims, bullies, and bystanders, prevalence rates, specific types of cyberbullying behavior, gender differences, intervention/prevention strategies, legal/legislative measures, etc.). While consensus is evident in some areas researched, significant findings in other areas are inconsistent, indicative of the inherent complexities of this phenomenon and the methodological problems hampering insight into the nature of this problem and its possible solutions. The purpose of this review is to provide an overview of the current status of the research and theoretical perspectives on cyberbullying in hopes of encouraging good scholarship, improved methodologies and thoughtful inquiries to better inform educators, parents, mental health service providers, policy makers and others so that they can more effectively promote healthy online and offline behaviors among digital users. This discussion reviews the definition and characteristics of cyberbullying, its prevalence, populations affected, gender differences, theoretical perspectives and issues of intervention and prevention.

Keywords: Ethics, Information & communication technologies (ICT), Interpersonal skills, Online programming, Social Networking, Student expectations, Student perceptions, Student responsibility, Virtual reality

1. INTRODUCTION

Digital technologies have now become the primary way many people, companies, and organizations worldwide communicate, exchange ideas, information and, stay connected. For many youth, online communication and virtual communities are not construed as virtual realities or technological subcultures but merely other ways for them to connect with their friends in ways that seem seamless with their offline life; indeed some youth, in order to function, feel that they must remain “always on” and “connected” to their ICT even while engaged in offline activities (Abbott, 1998; Osgerby, 2004). Online communication via the Internet and ICTs is popular among youth, in part, because it seems to provide a sense of privacy, which encourages greater self-disclosure than when communicating face-to-face (Gross, 2004; Menesini et al., 2011). The use of these technologies by children, adolescents and adults in our society for communication and social networking has both positive and negative outcomes.

One of the negative consequences is cyberbullying which occurs not only in the United States but has become a global phenomenon occurring in countries throughout Asia, Europe,

the Middle and Far East, North and South America, Africa and Australia (Aficak et al, 2008; Liao et al., 2005; Livingstone et al, 2011; Smith and Williams, 2004). In the past decade, cyberbullying has had an impact on a much broader age demographic than conventional/traditional bullying. It is now occurring among older adolescents, college students, young and older adults in the workplace (Pellegrini and Long, 2002; Liao et al., 2005; Smith and Williams, 2004; Muir, 2005; Aficak et al., 2008; Bhat, 2008; Slonje and Smith, 2008; Walrave and Heirman, 2011). These developments in the scope and breadth of this phenomenon contribute to the difficulty in clearly conceptualizing the salience of variables empirically studied over the past 20 years.

What has clearly emerged in the literature among school aged youth is that the impact of cyberbullying on the victim, the bully, and the bystander is associated with poorer academic performance, lack of confidence, low self-esteem, higher incidences of depression, loneliness, emotional distress and alienation (Dellasega and Nixon, 2003; Hinduja and Patchin, 2010). In clinical practice 30% of clients presenting with problems related to cyberbullying were perpetrators; 70% were victims (Mitchell et al., 2005). The

possible connection between bullycide/cyberbullycide (a term popularized by the media that refers to suicide supposedly as the result of unrelenting bullying and/or cyberbullying) and social media has raised concern, especially in light of the highly publicized suicides of Megan Meier in 2006, Tyler Clementi in 2010, and Amanda Todd in 2012, Rebecca Sedgwick in 2013, to name a few. Shah (2010) found that the prevalence of Internet users was positively correlated with general population suicide rates based on a cross-national study that examined the association between general population suicide rates and the prevalence of Internet users, using data from the World Health Organization's and the United Nations Development Program's Websites. Hinduja and Patchin (2010) indicate that cyberbullies were 1 ½ times more likely to report having attempted suicide than children who were not bullies or victims.

2. CYBERBULLYING DEFINED

Cyberbullying has been defined as the intentional and repeated harm inflicted through the use of computers, cell phones, or other electronic devices (Kowalski et al, 2007; Patchin and Hinduja, 2010, Hinduja and Patchin, 2009). It has been compared to traditional bullying by some research which has found similarities in terms of the characteristics outlined in the American Psychological Association document (2004) i.e. some cyberbullies also bully in conventional ways (Smith et al., 2008; Williams and Guerra, 2007). Thus, theories on the psychological processes and consequences of traditional bullying might be applied to the study of a subset of individuals who cyberbully.

Others suggest that cyberbullying is a distinct, separate category of bullying behavior because of the unique psychological processes involved in cyberbullying and being cyberbullied (Aboujaoude, 2011; Beckerman and Nocero, 2003; Harris et al, 2002; Mishna et. al, 2009; Van der Wal, de Wit and Hirasing, 2003; Willard, 2003; Ybarra and Mitchell, 2004). Before a much larger audience of known and anonymous observers, spanning continents, cultures, nationalities as well as time, the cyberbully can act quickly, anonymously without fear of punishment,.

3. PREVALENCE OF CYBERBULLYING: AMONG CHILDREN AND ADOLESCENTS

Until recently, empirical studies addressing concerns about the abuse and misuse of ICTs as well as the harmful effects on victims, bystanders and the bullies of some online activity have focused primarily on children and adolescents in middle and high school settings (Bruno, 2004; Cowie and Colliety, 2010; Wolak et al., 2010). Typically, prevalence rates have been based on questionnaires and surveys administered to children and adolescents, the results of which are affected by the inherent limitations of self-report measures, the nature of self-selected populations and, the ways in which the questions are framed. Findings have shown that approximately one in five students will be cyberbullied (Wright et al., 2009; Hinduja and Patchin, 2010) and about the same ratio of students will cyberbully others (Hinduja and Patchin, 2010); it is estimated that 19%

of youth between the ages of 10 and 18 had been either the perpetrator or victim of cyberbullying (Hinduja and Patchin, 2010; Ybarra and Mitchell, 2004).

Slonje and Smith (2008) found that 25% of cyberbullies and their victims were identified as being from the same school, thus more likely to result in face-to-face encounters as well. More lesbian, gay, bisexual and transgendered (LGBT) youth are reported victims of cyberbullying than other "minority" groups (Cassidy et al., 2009). Cyberbullies and cybervictims are generally heavy Internet users (Kowalski et. al., 2008). Over 50% of cyberbullies claim to be expert Internet users, compared to one third of children who do not bully (Ybarra and Mitchell, 2004). While these statistics offer some information about the prevalence of cyberbullying among children and adolescents, other studies have suggested that cyberbullying records are underestimated (Dehue, Bolman, and Vollink, 2008; Kowalski and Limber, 2007).

4. PREVALENCE OF CYBERBULLYING: AMONG COLLEGE STUDENTS

Over the past 15 years, we have witnessed a trend of cyberbullying involving a much broader age demographic than conventional/traditional bullying and what was reported earlier in the literature on cyberbullying. In retrospect, public awareness and research to better understand cyberbullying and develop preventative strategies to combat cyberbullying have lagged behind its proliferation within this older demographic group. Cyberbullying is now reported among college students, as well as young and older adults in the workplace (Pellegrini and Long, 2002; Smith and Williams, 2004; Finn, 2004; Liau et al., 2005; Muir, 2005; Aricak et al., 2008; Bhat, 2008; Slonje and Smith, 2008; Kraft and Wang, 2010; Walrave and Heirman, 2011).

Chapell et al (2004) found that: 1) 24.6% of 1,025 undergraduate respondents in an exploratory study on bullying had been bullied; 2) 70% of undergraduate students who were bullied in high school and elementary school, bullied others in college; 3) more than 50% of students who had been bully/victims or bullies respectively in elementary and high school repeated the pattern in college.

Walker et al. (2011) report, in their university sample of 131 undergraduate students that: 1) 54% of respondents indicated knowing someone who had been cyberbullied; 2) 11% of the respondents indicated that they had been cyberbullied via Facebook (64%), cellphones (43%) and AIM (43%); 3) of those respondents who were cyberbullied, 14% were bullied more than 10 times whereas 57% were bullied less than four times; 4) 71% of the respondents indicated that they had told a parent/guardian or another adult about what had happened.

The perceptions of faculty and students on cyberbullying at the university level have been examined (Lawler et al, 2012; Molluzzo et al, 2013). Findings include the following: 1) both faculty and students consider cyberbullying to be a serious issue(73% and 52% respectively); 2) of those faculty aware of cyberbullying incidents at their university, 10 % were aware of faculty perpetrator to faculty victim incidents; 3) 9% of students had been cyberbullied at the university; 4) 28% of those cyberbullied at the university reported that the

cyberbully was external to the university; 5) 12% of the student respondents indicated that they initiated cyberbullying at the university.

Boulton et. al (2012) attempted to predict undergraduates' self-reported involvement in traditional and cyberbullying from their comparable attitudes about traditional bullying and cyberbullying, an area of study which has received scant attention in the literature; the researchers assessed different categories of cyberbullying based on the media involved (e.g. uploading photos/videos, texting, and social networking as in websites and chat rooms) and common forms of traditional bullying (e.g. physical, verbal and social exclusion). Their data suggest that among this college population, negative attitudes were expressed toward bullying behavior regardless of category (traditional bullying or cyberbullying) or form, that physical bullying was viewed least favorably relative to the other traditional forms and the three cyber forms, and, that one's attitude toward bullying behavior was the best predictor, relative to attitudes toward perpetrators or victims of bullying behavior.

Bennett et. al (2011) examined students' negative experience of electronic victimization in their friendships and dating relationships (e.g. hostility, intrusiveness, humiliation and exclusion) via email, text message, social networking site (e.g. Facebook/MySpace) and/or website, chat room/bash board; their findings indicated that 92% of the 437 undergraduate respondents had experienced some form of electronic victimization in the past year.

5. TYPES OF CYBERBULLYING

Research findings indicate that cyberbullies attempt to control/manipulate, harass, humiliate, intimidate and tease the targeted individual in a variety of ways (Aftab, 2013; Beran and Li, 2007; Espelage and Swearer, 2003; Fekkes et al., 2005; Herring, 1996; Menesini et al, 2011; Mitchell et al, 2005; Muir, 2005; Smith et al, 2008). The methods or types of bullying include but are not limited to the following: 1) "Catfishing" i.e. tricking people into emotional/romantic relationships over a long period of time by fabricating online identities and entire social circles; 2) Cheating, forming roving gangs, and blocking entryways in massive multiplayer online games (MMOGs); 3) disseminating derogatory insults, humiliating and/or threatening messages or pictures to the targeted individual and to an online community; 4) "Flaming" (an antagonistic, "in your face" argumentative style of online communication used primarily, but not exclusively by males); 5) Impersonating others online; 6) Online "slamming" in which "by-standers" participate in the online harassment; 7) Rattng (controlling the targeted individual's computer/webcam via Remote Administration Tool software without their knowledge or consent thereby gaining access to targeted individual's files, spying on the individual and controlling the functions/operations of their computer); 8) Relational aggression (e.g. spreading rumors, creating a false Facebook page to exclude or ostracize a target, deleting the target from a friendship list, posting cruel messages or threats on a social network profile such as the target's Facebook wall); 9) Sexting (circulating embarrassing/humiliating and/or sexually suggestive pictures); 10) Shock trolling (mean-spirited,

offensive posts or messages in an online community intentionally designed to anger, frustrate or humiliate someone in order to provoke a response); 11) Stalking people online and threatening violence.

Research indicates that cyberstalking typically occurs among older adolescents and adults on college campuses and in the workplace by those who tend to be well educated, and struggle with Internet addiction (Finn, 2004; Kraft and Wang, 2010; Lucks, 2004). "Cyberstalking" also includes the idea that the behavior "would make a reasonable person afraid or concerned for their safety" and may involve criminal activity (Finn, 2004, p 469). Incidence statistics indicate that cyberstalking is quite prevalent, with victimization rates ranging from 4%-40% across college-age populations (Reyns et al., 2012).

The cyberbully can target an individual via blogs, cellphones, emails, instant messaging (IMs), Internet polling, massively multiplayer online games (MMOGs), social networking sites (e.g. SNS such as Facebook, MySpace, myYearbook, Twitter), text messaging, video chat services such as iChat, virtual worlds like Stardolls, webcams and websites.

6. SOME OF THE CYBERBULLY'S SOCIAL MEDIA TOOLS

6.1 Ugly Meter

Several downloadable applications (apps) for cellphones/smart phones, originally designed for a positive, constructive purpose, have instead been misused by cyberbullies to harass targets. For instance, Ugly Meter has been downloaded more than 5,000,000 times. One scans a photo and uses facial contours and patterns which allow the picture of the subject to be rated on the "ugly" scale from 1-100. Some argue that this app will lower self-esteem among already insecure youth (Hinduja, 2012).

6.2 Instagram, Snapchat and Sexting

Instagram, launched in 2010, is online photo-sharing, video-sharing and social networking service that enables its users to take pictures and videos, apply digital filters to them, and share them on a variety of social networking services, such as Facebook, Twitter, Tumblr and Flickr. Snapchat, launched in 2011, is another smartphone app that deletes a photo after a recipient has had a few seconds to look at it. Sexting, defined as the sending or receiving of sexually-explicit or sexually suggestive images or video through a cell phone (Hinduja and Patchin, 2010), highlights how youth are vulnerable to sexual pressure from their peers and subject to criminal charges for sending/receiving what the legal system defines as child pornography.

To date, this technology mediated interaction has been reported to occur among children and adolescents i.e. among peers, not between minors and adults, or minors and strangers. The social pressure to comply with demands to sext is coercive in nature and tends to adversely impact girls who fall victim to the double standard about gender difference in what is considered appropriate and normal sexual activity (Ringrose et. al., 2012). The tragic circumstances and suicide of Amanda Todd in 2012 highlights the emotional distress and suffering victims of this

form of cyberbullying experience. The highly publicized and tragic downfall in 2011 of New York Assemblyman, Anthony Weiner, because of his sexting suggestive photos of himself illustrates that the misuse of this technology is unfortunately not limited to minors.

6.3 Twitter and Texting

Twitter, introduced in 2006, is a popular, free, micro-blogging and social networking service that enables its users to send and read other users' updates known as tweets, a message using no more than 140 characters. Advocates maintain that "tweets" allow busy people to keep in touch. Texting consists of a unique language, a text-based form of communication which helps to forge an identity of membership in a group and/or community and typically serves a constructive purpose. The following text messages illustrate this: "LOL, 2day b4 2! c u latr iight" translates into, "Laugh out loud, Today before 2. See you later, alright?" The following text, "I 8ate u" translates into, "I hate you". Users who "know" the language are sensitive to signs of being accepted or excluded, valued or criticized, etc.

Twitter, unfortunately, has also become a venue in which some people seem to lose sight of the potential ramifications of expressing privately held thoughts of the moment via this forum, regardless of the intent to harass, intimidate, malign and or threaten a target. Joseph Cassano, the 23 year old son of New York City's Fire Department Commissioner, was forced to resign his position as an Emergency Medical Service (EMS) employee, because he tweeted offensive, derogatory messages about patients he assisted. While he apologized for the messages, indicating that they did not reflect his true feelings, his behavior nonetheless reflected poor judgment (Ruderman, 2013). Justine Sacco, an executive with InterActive Corp., was fired for her thoughtlessly worded tweet, "Going to Africa. Hope I don't get AIDS. Just kidding. I'm white!", which, unbeknownst to her, had been retweeted more than 2000 times during her 11 hour flight to South Africa (Dimitrova et al., 2013). Two teenage girls, ages 15 and 16, angered by the conviction of two Steubenville high school football players for the rape of a teenage girl, were arrested and charged with sending threatening messages through twitter to the rape victim (Reese, 2013).

6.4 Multiplayer Online Computer Games

Massive multiplayer online computer games (MMOGs) are more commonly associated with boys; however boys and girls as well as men and women play these games. Cyberbullying can be difficult to glean from a kind of aggressive playing i.e. bullying which enables the player to win and is part of the game (e.g. trolling). For example, grievers enjoy causing havoc and distress for no clear purpose, often at the expense of their own in-game characters. They are often powerful players, and can terrorize online communities, as their tactics are difficult to deter and punish. Griefing can manifest as hate speech, team-killing, virtual rape, unprovoked violence, or theft of virtual currency or items (Chesney et al., 2009; Aftab, 2013). Cyberbullying can also occur by hacking into someone's account, changing passwords, stealing the gold and loot out

of the account, or tormenting friends while posing as their victim.

7. GENDER DIFFERENCES IN ONLINE BEHAVIOR AND CYBERBULLYING

Gender-related differences in online behavior have been noted in the literature since AAUW's initiative (2000) to increase female participation in computer use in schools and the increased use of cell phones among females (Herring, 1996, Patchin and Hinduja, 2010). Research findings on gender differences in online use in general and cyberbullying in particular, however, show some inconsistencies. National surveys suggest that more girls than boys engage in text messaging (Lenhart et al., 2010, 2007). However, Underwood et al (2012) found no gender differences among teenagers in their study in which usage was determined not by self-report measures but by measuring text messaging from billing records.

Several studies in the US and Sweden found that teenage girls are equally likely as boys to cyberbully or to be cyberbullied (Patchin et al., 2009; Slonje and Smith, 2008; Williams and Guerra, 2007; Ybarra and Mitchell, 2004). A Canadian study observed no significant gender difference in victimization, although more boys were found to be perpetrators (Li, 2007). According to a Turkish study, boys are more involved in cyberbullying, both as perpetrators and as victims (Aricak et al, 2008). However, other UK and US studies conclude that girls are more likely to be victimized, while boys are more likely to perpetrate, and females are more likely bullied by females and males, while males are more likely bullied by males (American Psychological Association, 2004; Chisholm, 2006; Dehue et al., 2008; Kowalski and Limber, 2007; Li, 2007; Pellegrini and Long, 2002; Wright et al, 2009). There are studies that found no difference in the percentages of victims of cyberbullying by gender. However, clear qualitative gender differences in the experience of being cyberbullied as well as their emotional response to victimization have been noted (Chisholm, 2006; Burgess-Proctor et al., 2010; Dehue et al, 2008; Mishna et al., 2010; Smith et al, 2008; Wang et al, 2009; Wright et al, 2009). Inexperienced, immature young men and women in their efforts to make friends, find companionship, and belong to a group may tend to act inappropriately online out of ignorance or intentional malice.

The literature on gender differences in the expression of aggression finds that girls tend to engage in what has been called passive aggression, relational aggression, or social aggression which extends into their online behavior (e.g. spreading rumors, the threat of withdrawing affection, excluding someone from a social network and/or important social function) (Merten, 1997; Simmons, 2002; Crick et al., 2002; Nansel et al., 2001, 2003; Underwood, 2003). Relational aggression can also include such behavior as ignoring someone, name-calling, making sarcastic verbal comments towards someone, and threatening to end a relationship if the girl does not get her way (Dellasega & Nixon, 2003; Mikel-Brown 2003; Remillar and Lamb 2005; Simmons, 2002). This passive aggression is covert and as such, its potential harm tends to be underestimated by teachers and guidance counselors (Merten, 1997; Simmons,

2002). However, the impact on the target as mentioned earlier, affects their self-esteem, confidence, academic performance and psychological functioning (Dellasega and Nixon, 2003).

Ang and Goh (2010) examined the association between affective empathy (the ability to share the emotions of others), cognitive empathy (the ability to understand the emotions of others) and gender on cyberbullying among adolescents and found a significant three-way interaction i.e. at low affective empathy, both boys and girls reported similar behavioral responses; those who were also low on cognitive empathy reported more cyberbullying behaviors than those who were high on cognitive empathy. They conclude that high affective empathy buffers the impact of low cognitive empathy on cyberbullying for girls but not for boys.

Among college students, Bennett et. al.(2011) report that: 1) 88% of females and 83.4% of males text messages daily, some texting several times a day; 2) 86.6% of females and 81% of males email daily; 3) more males 37.2% than females 30.1% use instant messenger daily; 4) participants in this study by comparison made little use of blogs, message boards and chat rooms. With respect to electronic victimization, Bennett et. al (2011) found college men reporting more electronic victimization (e.g. text message, email, social networking post) and women anticipating more distress associated with electronic victimization. Gender differences were found in the experience of electronic victimization and risky behaviors (e.g. alcohol use). Specifically, women's electronic victimization was associated with alcohol use. Boulton et al. (2012) found that women expressed less accepting attitudes toward bullying behavior and perpetrators and more sympathy toward victims, than men.

Molluzzo et. al (2013) report in their major metropolitan university sample that: 1) 48% of female students compared to 23% of male students perceived cyberbullying impacting students on campus; 2) 53% of gay students and 31% of lesbian students perceived that cyberbullying was impacting students on campus; 3) 78% of female professors compared to 54% of male professors agreed that a preemptive solution to cyberbullying at the university would include the university sponsoring sensitivity sessions for professors.

8. PSYCHOLOGICAL PERSPECTIVES

Earlier literature on aggression and violence suggests that the motives that may generate aggression and violence result from the objective nature of events as well as the way these events are construed. The meaning given to these events is based on past experience, world views, personality and views handed down by society via parental socialization and family experience(Osofsky,1997). In the late 1980's much of the research on youth aggression and violence focused on physical violence(e.g. fighting, gang violence, school violence, shootings, etc.) primarily among male youth. Hoch-Espada (1997) found a relationship between exposure to violence, stress and antisocial behavior. She speculates that youth who engage in aggressive behavior may be attempting to master their own feelings of helplessness they experienced while being traumatized. She writes,"In

behavioral reenactments of the trauma, these youth play the vacillating roles of both victim and victimizer"(p.128).

In the late 1990s, the discourse shifted from physical violence primarily among boys, to relational violence seen among girls, and from physical violence in real time, to virtual violence in cyberspace. A review of the cyberbully literature suggests that efforts to better understand the experience of cyberbullying are complicated by the ever evolving fluidity between public/private domains of engagement with self and others, the rapid development of new technologies which quickly makes classifications of bullying behavior/victimization based on dated technologies obsolete, and cultural differences in communication styles regarding the salience of that which is communicated via the Internet and ICTs for both the sender and receiver(Menesini et al.,2011).

Zizek (2004) argues that the social function of cyberspace in our society today is to bridge the gap between an individual's public symbolic identity and that identity's fantasmatic background. Ideas, fantasies, beliefs, all part of the inner world, are more readily and immediately projected into the public symbolic space. The technological phenomenon of the "screen", and the mechanics of its functioning, create a logic that impacts other spheres of psychological/social functioning of the user, especially for youth (Wallace, 1999). Suler's (2005) description of the features of cyberspace (e.g. altered perception, equalized status, identity flexibility, media disruption, reduced sensation, social multiplicity, temporal flexibility, texting, and transcended space) is elaborated by Aboujaoude (2011) who suggests that the psychological functioning of users changes as they develop a "virtual" personality or "virtual" identities which predispose them to act differently online than they do in face to face interactions.

Theories on cyberbullying explore and attempt to understand this phenomenon from different perspectives ranging from the micro (e.g. the psychology of the offender, victim, bystander, etc.) to the macro level (e.g. a focus on systems, organization, and society examining sociopolitical, economic and cultural factors).

8.1 Individual Functioning

The anonymity in cyberbullying is due to the lack of recognition/visibility of the bully as s/he can conceal their identity; this aspect of cyberbullying further differentiates it from conventional bullying. Anonymity facilitates disinhibition i.e. the loosening of psychological barriers that serve to block the release of innermost, private thoughts, feelings and needs, changing the way in which an individual generally self discloses/self creates and communicates online. Anonymity operates in other ways as well. For instance, the aggressor may not see the pain inflicted on the victim. Also, because cyberbullying happens in the mediated world, tone and sarcasm in any mediated message are removed. This is important because one may perceive a "threat" in a message when none was intended by the sender.

Additionally, the "power" the cyberbully exerts over his/her victim is based, in part, on the extent of their facility with digital technologies(or in the case of rapping, with their access to software developed by those who are technologically savvy) rather than their greater physical

strength over their victim as in conventional bullying; the facility with digital technologies is what enables them to conceal their identity, maximize the harm to their target by exposing the bullying to a community of online bystanders (Patchin and Hinduja, 2006). Today many young people resort to these ways of engagement as a means of dealing with high levels of stress, anxiety, fear, frustration and anger because of little or no adult supervision to mediate their online behavior.

8.2 Peer Influence

The study of peer relations offers another theoretical perspective on cyberbullying. Behaviors that are believed to contribute to one's peer group status can be categorized as behaviors enhancing social prominence (or visibility) or social dominance (power and influence) in the peer group. With respect to social prominence, for example, popular adolescents are considered to be leaders, athletic, physically attractive and fashionable/snobby (Closson, 2009; LaFontana and Cillessen, 2002; Coie, Dodge, and Coppotelli, 1982). With respect to social dominance, two subtypes of popular adolescents are discerned.

While some popular adolescents are associated with prosocial behaviors, others are associated with antisocial, coercive behaviors towards their peers, such as bullying (Salmivalli et al., 2011; Andreou, 2001). This latter group of popular 'tough boys' and 'mean girls' is the social peer group that Coie, Dodge, and Coppotelli (1982) call "controversial" popular adolescents. Although generally perceived as popular, they score high on being liked as well as on being disliked when their peers are asked to nominate classmates in one of these categories. Popular controversial adolescents are believed to strategically use both prosocial and coercive behaviors in order to maintain (or achieve) social dominance in the peer group (Pellegrini and Long, 2002). Therefore, bullying can be considered a strategy of popular controversial adolescents to maintain their high status position in the peer group.

8.3 Systems Approach

Sarason's (1982) observations about the "problem of change" within the school system written years before our digital age in which he was addressing our understanding of schools as microcosms within our societal macrocosm is apropos to our current efforts to understanding the problem of cyberbullying in schools. He suggests that explanations (and consequent strategies) that are based on the characteristics of individuals may contain an element of truth (and be modestly successful), but that truth is obtained at the expense of discerning regularities that transcend the individual, persisting more as a function of structure and processes of the system. Therefore, recognizing cyberbullying as a phenomenon existing within the culture of our schools, which in turn exist and mirror some disturbing trends in our society, may contribute to our understanding of cyberbullying and ways to prevent it.

8.4 A Macro Level Approach

Examination of broader economic, and social factors involved in cyberbullying might lead to policy, legislation and/or social pressure to change business/corporate practices

contributing to this phenomenon i.e. analyses focusing on the profit motive might identify ways to make these business ventures (e.g. smartphone applications, anonymous websites providing the venue to harass people, development of spyware software programming, etc.) less profitable and consequently dropped as viable sources of revenue. That is to say, that one needs to examine those industries and their product that are directly or indirectly connected to the proliferation of cyberbullying.

9. INTERVENTION/PREVENTION STRATEGIES

Those concerned with stopping cyberbullying and promoting cybersafety have conceptualized this social problem from different perspectives ranging from micro-level to macro-level contexts (e.g. intrapersonal, interpersonal, family, peer group, behavior setting, organization/institution, community, society) resulting in several anti-cyberbullying initiatives in the United States and other countries. To date, research findings on the victims of bullying and cyberbullying are inconsistent with respect to the level and scope of the negative impact on their wellbeing. That said, Salmivalli et al. (2011) assessed the effects of a bullying intervention program that did not include cyberbullying and found that cyberbullying also decreased after the intervention. This finding is hopeful because it suggests that existing effective antibullying programs could be effective in reducing cyberbullying as well.

9.1 Legislation on Bullying

Since the Columbine shootings in 1999, 49 states have adopted laws which define acts of bullying within schools and establish school and/or district policies that prohibit bullying behavior; 47 states prohibit electronic harassment and 18 states have provisions that specifically address "cyberbullying" (Hinduja and Patchin, 2013; United States Department of Education, 2011). Rep. Sean Patrick Maloney of Newburgh would like more uniformity in how cyberbullying is addressed across the nation and has proposed that Congress pass legislation known as the Safe Schools Improvement Act that would require schools receiving federal funds to adopt codes of conduct prohibiting bullying/cyberbullying (Scotto, 2014).

As discussed in the literature, many youth never report their experience of cyberbullying and cope with the negative feelings/experience on their own. Additional training at the graduate and post graduate levels for mental health providers and other professionals is necessary to enable them to recognize the signs of cyberbullying which contribute to psychological distress, interpersonal difficulties and interfere with the normal developmental tasks of childhood and adolescence. In New York, The Dignity for All Students Act (DASA) took effect on July 1, 2012; the New York Legislature amended DASA to include a requirement that school professionals applying for a certificate or license on or after July 1, 2013 must complete coursework or training in harassment, bullying, cyberbullying, and discrimination in schools: prevention and intervention, referred to as DASA training (DASA, 2013).

9.2 Educational Campaigns

Apropos of research indicating gender differences in the experiences of victims and perpetrators of cyberbullying, Ang and Goh (2010) propose including empathy training and education in cyberbullying intervention programs with emphasis on cognitive components of empathy for boys and affective components of empathy for girls. Willard (2011) recommends educational campaigns in schools about cyberbullying based on other prevention initiatives that were launched at the university level to prevent binge drinking. The approach entailed a survey to estimate students' actual binge drinking behavior as well as their perceptions about the extent of binge drinking on campus. Binge drinking declined when students learned that so many of their peers disapproved.

Isabella Griffin, at nine years of age presented her idea, "Be a Buddy, not a Bully" to the principal of her school and it was adopted by the Alamosa school district in Colorado. Students sign a pledge against bullying and receive a bracelet which allows them to intervene to stop bullying (Torres, 2012).

Several other programs already exist and have been shown to be effective in reducing bullying among school populations (e.g. Olweus Bully Prevention Program, and the programs developed by I-Safe.org and the Internet Safety Group (ISG) from New Zealand). According to Olweus (1993) there are seven different levels within the bullying ladder: the students who want to bully and initiate the action, their followers or henchmen, supporters or passive bullies, passive supporters or possible bullies, disengaged onlookers, possible defenders, and defenders who dislike the action of bullying and help those that are victimized. He argues that breaking up the aggressive portion of this ladder and shifting students to a deterring mindset must be a major part of any prevention program.

I-SAFE America is a nonprofit educational foundation established in 1998 to provide students with the awareness and knowledge they need to recognize and avoid dangerous, harmful online behavior. This objective is accomplished through two major activities: providing the ISAFE school education curriculum to schools nationwide and community outreach which includes events for the community-at-large and school-based assemblies for the student population at which Internet safety issues are discussed (I-SAFE America, 2006).

The Internet Safety Group (ISG) from New Zealand is an independent organization whose members include educators at all levels of the school system: elementary grades through college, government groups, representatives of law enforcement agencies, the judiciary, community groups, businesses, libraries, and individuals. In 2000, the Internet Safety Kit for schools, the NetSafe website and their toll-free NETSAFE Hotline was launched (www.netsafe.org.nz). What is stressed in these programs and projects is that education (e.g. curricula) designed for specific groups (e.g. youth, parents, teachers, school administrators, law enforcement, legislators, etc.) is crucial to reducing and/or eliminating at-risk online behavior.

Limber(2010) has reviewed bullying policies and prevention programs and concludes that those with zero tolerance policies, conflict resolution/peer mediation, group

treatment for children who bully and simple, short-term solutions are well intentioned but not as effective as expected. She acknowledges that best practices in bullying prevention and intervention focus on the school's social environment through staff training, establishing and enforcing rules and policies and, increasing adult supervision. While her recommendations are geared towards bullying, as mentioned previously, there is evidence that intervention programs designed to reduce bullying may also reduce cyberbullying (Salmivalli et. al, 2011).

10. DIRECTIONS FOR FUTURE RESEARCH

Continued research on the diversity among the victims of cyberbullying as well as the diversity among cyberbullies which studies how age, gender, social class, access to ICTs, and individual preferences regarding online activities of children and adolescents will increase our knowledge about the interplay of online activity and the user's experience of being bullied and bullying(Hinduja, 2012). Preventing cyberbullying within college communities will prove to be challenging. What is known about cyberbullying stems mostly from research with children and younger adolescents. Research on cyberbullying empirical studies are needed to understand any similarities and differences between this population and younger individuals with respect to the types and forms of cyberbullying, the characteristics of the cyberbully, victim, the bystanders, as well as the impact on the campus community for this population. Results from existing studies need to be replicated and validated.

College administrators are now addressing the need to clarify established policies and procedures for institutions of higher learning to determine degrees of their accountability in preventing cyberbullying on college campuses (Kraft et al, 2010). It has been advised that educational institutions incorporate safe online practices and privacy modules to existing computing courses (Lawler and Molluzzo, 2010). This seems like a fairly uncomplicated, easily implemented initiative which could be extended to everyone within the university.

This discussion on cyberbullying reflects the continued importance of collaborative efforts and good scholarship to improve our understanding of this phenomenon and ways to effectively prevent it. Knowledge about the influence of ICTs on the development of emotional, self-regulatory and executive function skills is scarce as are longitudinal empirical studies on how youth wrestle with the expression of powerfully felt emotions(e.g. anger, fear, frustration, hatred, hurt, humiliation, prejudice, etc.) online.

Mitchell et al. (2005) suggest that: "the implementation of population-based studies about Internet use and problematic Internet experiences should help in the development of norms in this area, which, in turn, is an important component in the development of public policy, prevention, and intervention in this field. More research is also needed concerning the mental health impact of various problematic Internet experiences. Internet problems may be adding some unique dynamics to the field of mental health that require special understanding, new responses, and interventions in some cases...For example, are persons with impulse control problems drawn to certain aspects of the

Internet, such as pornography and gaming, which could further exacerbate their symptoms? Does Internet exposure exacerbate preexisting mental health difficulties?"(p.507).

Greenfield and Yan (2006), surveying the empirical literature on the impact of virtual reality on psychosocial functioning of children and adolescents, ask the following: "How should we think of the Internet from a developmental perspective?, what are the uses to which the Internet is put and what do users get from it?"(p.392). They suggest another possible direction for future research which involves looking at the Internet as a "new object of cognition"(p.393) i.e. the reciprocal influence of the kind of engagement with ICTs and the cognitive/emotional level of development and functioning of children, adolescents and adults.

Researchers interested in this line of inquiry will have to tackle the complex challenges unique to the Internet and ICTs because, unlike other media/electronic devices (e.g. radio, TV), ICT users participate in and co-construct the virtual social and physical world of this phenomenon. This information is crucial because of the trend for younger and younger children to have access to these technologies as the technologies continue to evolve.

Lastly, the development of initiatives that enhance the media literacy of parents, mental health providers, elementary and secondary school educators, college advisors and faculty, as well as other professionals is important; becoming more adept in understanding and using these technologies will hopefully improve their success in addressing the needs of children, adolescents and young adults who are actively involved with ICTs and online social networks.

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interests include: community psychology, cyberbullying, gender, issues in the psychological treatment of women of color, multiculturalism as a perspective in psychology, prejudice in the theory/practice of psychology, psychological assessment of children and adults, parenting, and school violence.

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