



Technology Usage and Cyber Bullying among Students

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Abstract

Today with increase in use of technology among young population, cyber bullying is a prevalent issue worldwide. Bullying has always been a problem but now the perpetrator has access to the victim outside of the school, college or workplace. On one hand social media is widely used by the youth for staying socially connected and expressing themselves, they find themselves exposed to anonymous strangers. Databases such as PubMed, google scholar, psych info and psych articles were navigated with appropriate keywords. Originally 51 papers were looked at before narrowing down based on the inclusion criteria. The research data shows that male students were more likely to be the perpetrators and victims of cyberbullying. Females employed psychological abuse more than males. Aggressors displayed delinquency, substance abuse and poor parent-child relationships. Victims reported feelings of anger, sadness, hurt, embarrassment, isolation, humiliation and helplessness. Victims also experienced depression, social phobia, poor concentration, burnout, low efforts in job search, decrease in academic performance and social sensitivity. Students from minority groups, lower social strata, perceived as weak, disabled were more likely to be cyber bullied. Factors like anonymity, cultural elements, low academic pressure, desire to dominate contributed to perpetrators indulging in cyber bullying. In some cases, a victim of traditional bullying can become a perpetrator of cyber bullying. Tech giants like face book, Instagram and twitter have been at work to combat cyber bullying. Interventions such as employing Artificial intelligence tools such as NLP and NLC is being navigated. Additionally, tools that prevent offensive remarks before being posted are also being looked at. Precisely, targeting offensive comments in a

conversation is tough due to the contextual nature of conversations. All these have been elaborated upon in detail.

Keywords: *Cyber bullying, technology usage, online bullying, harassment, college students*

Introduction

In research conducted in Canada, about half of internet users reported knowing at least 1 person who has been a victim of cyber bullying (Mitchell, Ybarra & Finkelhor, 2007). The victims typically receive racist, threatening and hate messages (Subrahmanyam & Greenfield, 2008). A study on undergraduate students concluded that about 30% report undergoing cyber bullying for the first time at college (Kowalski et al., 2012). Cyber bullying tendencies were found more in male students than in females (Nabuzoka, 2003) Nancy Willard categorised cyber bullying into 7 types, viz. flaming, online harassment, cyberstalking, denigration, masquerade, outing and exclusion.

Cyber bullying is a manifestation of traditional bullying transferred into technology (Sandhu & Kaur, 2022) with adolescent aggression culminating with electronic communication (Hinduja & Patchin, 2007). Anonymity is the main obstacle in combating cyber bullying. In particular, cyber bullying is more severe than traditional bullying because of the inability to escape the situation and then presence of bystanders who has access to private content (Bhat, 2008; Campbell, 2005). In 2017, India was found to be 3rd largest in terms of cyber bullying cases. According to McAfee's survey, 50% of youth in India had undergone cyber bullying to some degree (Moirangthem et al., 2022).

Methodology

A rigorous systematic search was done to understand the nature and factors associated with cyber bullying. Additionally, the impact on victims and perpetrators was also looked into. Interventions undertaken to minimise the effects were analysed. Appropriate publications were identified from databases such as PubMed, Google scholar, PsycINFO and Psych articles. In order to access research papers, keywords (cyber bullying, technology usage, college students, cyber bullying in students, online harassment) were used. Initially 51 research papers were identified and were assessed for fulfilment of the inclusion criteria. Papers on cyber bullying

on adults have been excluded. Papers studying about cyber bullying on high school and college students have been included. Out of 51 papers 24 papers met the inclusion criteria.

Results

Prevalence

In a study conducted on 579 university students from Istanbul, cyber bullying occurred through electronic media (59.8%), internet (20.7%), and mobile phone (27.7%). Cases with Unfamiliar perpetrators (88.1%) were higher than cases with familiar (11.9%) ones (Turan et al. 2011). Students with a casual attitude towards cyber bullying encountered more hate speech and cyber bullying (Subrahmanyam & Greenfield, 2008). Not much gender differences were found but males reported increased cyber bullying on online gaming platforms (Kowalski et al., 2012). In 2007, a study reported 1 in 3 adolescents were victims of cyber bullying. While 1 in 5 adolescents being the cyber bully (Li & Q, 2007). 1/3rd undergraduate students have experienced cyber stalking (Spitzberg & Hoobler, 2002) and developmentally delayed adolescents have undergone online sexual harassment (Katz, 2002) In U.S, New Jersey, victims of cyber bullying and cyber stalking are 10% and 9% respectively (Kraft & Wang, 2010). On the contrary a study in university of turkey, report high prevalence rates of cyber bullying (55.3%) (Dilmac, 2009). A study on UG female students observed that cyber bullying was not considered a serious issue. Awareness was low in terms of familiarity and resources for victims (Brewer et al., 2014).

Cyber Bullying Cases

In Quebec, Canada, a 15-year-old teenager was subjected to humiliation and distress when his private video was made viral by his classmates. His parents filed a lawsuit and sought justice for their son (Snider & Borel, 2004). Calabazas high school, California saw gossips, racist and threatening remarks as part of a website which affected the whole school (Paulson, 2003). On a MOO, 2 female characters were forcibly instructed to perform sexually degrading acts upon themselves. This was done by a male user (Dibbell, 1996). Graphic sexual abuse was enacted by a male user on a multiplayer computer game (Reid, 1994). In 2022, a university student was arrested for sending morphed explicit pictures of faculty members. He admitted that many such content has been going on during educational sessions (Moirangthem et al. 2022).

A 15-year-old in New Jersey confessed to engagement in cyber bullying. “I did not like the girl, so I said something to her and left nasty messages in her online journal, signed anonymous, saying nasty things,” she said (Hinduja & Patchin, 2006). Phoebe prince (15-year-old) committed suicide after being bullied online repeatedly (Johnson, 2010). Tyler Clemente (18-year-old) jumped off the George Washington bridge. His private videos with another male had been leaked by his roommate (Friedman, 2010). A case which grabbed attention was the boy’s locker case, where morphed images of minor girls was being circulated on an Instagram group. Additionally, explicit language and objectionable language was also part of the conversations. The group admin and 20 others were arrested by the police (Moirangthem et al., 2022).

Impact faced by victims and perpetrators

Victims of online and offline harassment led to symptoms of depression (Thomas, 2006). Cyber bullying displayed a negative association with burnout and effort in searching for a job (Kowalski et al., 2012). Victims report reduced concentration, decrease in academic performance, decline in interest in school and increase in absence to school/ college (Limber, & Small, 2003). Additionally, tardiness, truancy (Ericsson, 2001; Richardson, 2003), suicidal ideation, eating disorders and depression (Hunter & Borg, 2006) were also found. Victims also engaged in violent acts towards others and self under severe cases.

Perpetrators experience substance abuse, delinquency and poor parental-child relationship (Ybarra & Mitchell, 2004). Increase in emotional distress, fear and anger were typical responses shown by victims of cyber bullying. Victims also displayed feelings such as embarrassment, hurt and self-blame (Hinduja & Patchin, 2006). Anxiety and low self-esteem were predominantly found among cyber bully victims. In a study on adolescents from Finland, physical issues such as headache, recurrent abdominal discomfort and sleep issues were reported among victims (Sourander et al., 2010). A sense of helplessness (Thomas, 2006) and social phobia (Raskauskas & Stoltz, 2007) were the repercussions of cyber bullying.

Victims of cyber bullying were also inclined to develop anxiety disorder as adults (Stapinski et al., 2014). The feelings of powerlessness, revenge, being exposed, humiliation and isolation were prevalent in victims of cyber bullying (Singh & Dhillon, 2024). Even though not much gender differences were found in terms of impact of cyber bullying, males reported increased work, social and personal life disruption. On the other hand, females displayed

increased obsessive compulsions, interpersonal sensitivity, psychoticism and hostility (Moirangthem et al., 2022).

Factors contributing to Cyber bullying

Engagement in traditional bullying and cultural aspects show relationship with cyber bullying behaviour. Anonymity has been the main contributor to enable cyber harassment. Lack of social accountability makes it easier to engage in hostile behaviour (Li & Q, 2007). Male students were more likely to be the victims and aggressors. Since aversive tactics are a norm among male social engagement (Pellegrini, et al. 2000). A study reported that bullying is a universal issue in countries like Norway, Sweden, Spain, Australia, Canada, Japan and USA. Factors that predict cyber bullying in a positive direction are aggression and securance. Endurance and affiliation were found to be negatively associated (Dilmac, 2009).

Usage of pseudo names and fake email addresses makes it tough to determine the perpetrator's identity. Hiding behind a screen makes it easier to use malicious words that one would avoid face-to-face (Hinduja & Patchin, 2006). According to traditional criminological theory, bullying in any form, is a learned behaviour (Akers, 1985). It can be an expression of a suppressed trait like low self-esteem (Gottfredson & Hirschi) or a strain response (Agnew, 2020). Psychopathic traits (Nocera & Dahlen, 2020), loneliness (Yubero et al., 2017) anti social behaviour and self-esteem were linked to cyber bullying behaviour (Shaikh et al., 2021).

Coping Strategies

Many students reported to be uncomfortable in sharing details of cyber bullying to a authority figure. They preferred sharing with a parent, teacher or a friend. Few students preferred to keep it to themselves. The reasons attributed to non-disclosure were thoughts that disclosure won't be of much help, not knowing whom to seek help from and not wanting to confide (National Children's Home, 2005). Removing self from the online platform, confiding with trustworthy individuals were the most followed ways of coping (Hinduja & Patchin, 2007). Reporting to officials, retaliating back, speaking to the perpetrator to stop were additional options that were considered (Smith et al., 2008).

Discussion

To ensure a safe online learning environment NCERT and UNESCO has implemented do's and don't guidelines to be followed. Indian government has laws in place to enable a secure online space for young people since they are the most affected. The IT act, 2008 developed in 2008, handles cybercrimes. Section 66(d) mandates 3 years prison, 1 lakh compensation. Section 66(e) ensures 3 years of prison time and a compensation of 3 lakh. This particular act targets people engaging in intentional violation of privacy by leaking private images. Section 67 mandates 5 years imprisonment, 10 lakhs monetary fine for offensive messages online (Moirangthem et al., 2022).

“When the victim is in initial stages they have not been totally exposed to full extent of negative outcomes. Stepping in at this stage by having a conversation with the aggressor and tapping into their empathy might help in some situations. Some aggressors are not aware of the extent of damage they are causing. Creating an awareness of the same may help. Establishing an environment where students feel safe, and reinforcement is done from an early age to insinuate that undesirable behaviours such as abuse and unparliamentary words are not acceptable. This enables students to not engage in such activities later on in life since cyber bullying or any forms of bullying is mostly done for social status and social dominance” (Singer, 2020).

The Indian cybercrime co-ordination centre (14C) scheme aims to deal with problems face by people on social media by prohibiting unnecessary usage of social media and creating awareness among youngsters. National cyber crime reporting portal is an initiative by indian government that enables women and children to register complaints regarding cyber bullying and immediate action is taken by local police assistance (Kaur & Saini, 2023).

According to Pew Research 18-24 is the most high-risk group for cyber bullying victimisation. Students who are different, weak belong to minority groups, LGBTQ+ and low on social hierarchy are the most susceptible to cyber bullying by their peers. Identifying offensive remarks accurately while also looking for context is a difficult task. A group led by Karthik Dinakar, developed an algorithm which categorised groups of words by detecting them according to themes. The group further, built a software that compares posts online to the information stored in competNet, a database which helps networks make sense of human language.

Identity Guard partnered with cyber bullying experts and Megan Meler to enable parents to keep their children's information secure without invading their privacy. NLP and NLC has been employed to detect cyber bullying instances. Facebook uses deep text which gauges text among many posts within seconds. Instagram makes use of an image filter to detect offensive content posted via image. Apart from these social media giants, a online gaming company riot gamers, employs their online community for identification and suggestion of action against the perpetrator. Artificial intelligence is used to filter out recommendations. Offensive comments have seen a 40% reduction in this company.

Before a offensive content is posted online, it can be stopped. This is possible through usage of Rethink. This app was developed by a teenager and is able to detect a derogatory word while it is being typed on the device. OCDD is another method of detecting cyber bullying. It was developed to detect offensive content on twitter. Similar to Rethink, Instagram is developing a feature that flashes a warning if an offensive content is typed on the keyboard. It does not block the user.

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