The International Journal of
INDIAN PSYCHOLOGY

Research Paper

Cyber Bullying – A Cross Sectional Study on The Prevalence and Ramifications of This Growing Enigma in Indian Adolescents

Dr. Meghna Ceetakoru[1]*, Dr. Lokesh Kumar Kalasapati[2]

ABSTRACT

This cross-sectional study was conducted to assess the knowledge, prevalence and attitude towards cyber bullying in Indian male and female adolescents. During the months of June-July 2017, a representative population of 312 respondents belonging to grades 9, 10 and intermediate college aged 14-18 and studying at private organizations were included in the present study. The analysis of this study revealed that 201 students that amounted to 64.4% of the respondents had experienced cyber bullying as victims in one way or another in the last six months alone. 66.1% of these were male students and 71.8% were female students. 87 respondents, i.e., 31% admittedly reported cyber bullying someone in the last 6 months. 38.9% of the cyber bullies were found to be males and 20.7% females. These significant findings reflect a rise in the number of victims and bullies in the cyber world, proving that this fairly new phenomenon requires further research and needs to be looked into to explore ways to prevent, curb and overcome it in the future.

Keywords: *Cyberbullying, Technology, Social Media, Internet, Catfishing*

Today, we live in a digital world where technology is advancing at an immense rate, and the flaws that come with it are continuing to multiply. One such evil that has entered the future is cyber bullying. Cyber bullying is "any behavior performed through digital or electronic media [by a college student or groups of college students] that repeatedly [over time] communicates aggressive or hostile messages intended to inflict discomfort or harm on [another student or other students]".[1] Unlike traditional bullying, cyber bullying observes characteristics such as a need for power and control, and proactively targeting a victim over a long duration, often shielded by anonymity.[2] Furthermore, in most traditional forms of bullying, harassment—whether direct or indirect—occurs in such a way that victims can clearly identify their tormentors. As many of the electronic mediums used in cyber bullying allow users to hide their identities, cyber bullies are often able to attack their victims anonymously.

[1]MBBS, Bhaskar Medical College, Amdapur X Road, Yenkapally, Moinabad, Ranga Reddy, Hyderabad, Telangana, India

[2]Associate Professor, Bhaskar Medical College, Amdapur X Road, Yenkapally, Moinabad, Ranga Reddy, Hyderabad, Telangana, India

*Corresponding Author

Cyber Bullying – A Cross Sectional Study on The Prevalence and Ramifications of This Growing Enigma in Indian Adolescents

It is known from a study, "Teens, Tweens and Technology Study 2015" [3] conducted by McAfee, part of Intel Security that 22% of Indian respondents between eight and sixteen have reported being bullied online and as many as 52% of Indian children have indicated that they had bullied people over the social media. Another study reviewed that 15.8% students of grades nine through twelve reported cyberbullying {higher among girls than among boys (18.3% vs. 13.2%)}, and had lower school performance and school attachment. [4]

A study by R. Lavanya and Kalpana G. Prasad [5] used questionnaire and interviews as tools to extract results. It was found that out of 290 respondents, 6.55% (n=19) had openly admitted to cyber bullying, 93.44% (n=271) denied cyber bullying anyone. Out of the 290, among those who have internet access at home (n=281), 75.8% (n=213) of them access the internet every day, 4.6% (n=13) of them go online every other day, 7.1% (n=20) of them use the internet once a week and 11.03% (n=31) of them use the internet 1-3 times a month. It is clear that there nearly 90% of the children have access to the cyberspace and are constantly active on it and hence are exposed to the threat of cyber bullying both from their peers and from strangers.

The Telenor India WebWise survey by Norwegian telecom giant Telenor [6] analysed internet usage and access patterns of children across schools in 13 cities, involving 2,727 students. The findings showed that over 35% children have experienced their account being hacked while 15.7% shared that they have received inappropriate messages. When bullied online 15% complained, whereas 10.41% faced humiliation through picture/video that were uploaded on internet. While a majority of the children were willing to approach their parents in case they experience any cyber harm, over 76% children were not aware of Child Helpline 1098.

A study by Ananya Vohra,[7] used a survey of 25 questions to decipher the extent of cyberbullying in India on 132 students including 35 males and 80 females aged 13-25 across several Indian cities. Out of the 127 respondents, 97% believe that cyberbullying is a serious issue. Out of 130, 19.2% reported experiencing cyberbullying. 79.2% said the cyber bully was known to them while 20.8% didn't know who the cyber bully was. 71% blocked the bully, 40% ignored it, 40% reported it, and 32% told their parents while 17% fought back online. 80.2% admitted to knowingly cyberbullying someone. 71.9% reported seeing someone being cyberbullied.

Schenk & Fremouw [8] found that college student victims of cyber bullying scored higher than matched controls on measures of depression, anxiety, phobic anxiety and paranoia. Studies of school-age cyber victims indicate heightened risk of depression, of psychosomatic symptoms such as headaches, abdominal pain and sleeplessness and of behavioral difficulties including alcohol consumption. As found in studies of face-to-face bullying, cyber victims report feeling unsafe and isolated, both at school and at home. This suggests that action against cyber bullying should be part of a much wider concern within schools about the creation of an environment where relationships are valued and where conflicts are seen to be resolved in the spirit of justice and fairness. [9]

Cyber bullying was a possibility ever since the internet was rooted into place and it is probably due to this phenomenon of pathological technology use (PTU) [10] that the issue of cyber bullying has continued to grow exponentially. The rationale of conducting this study

is for the very same reason. With technology constantly branching out, it can only be assumed that the phenomenon that is cyber bullying will become commonplace in the rapidly developing digital world. Thus, it is pertinent that the aspects of cyber bullying be studied to explore its dynamics and possibly suggest ways to prevent curb and overcome it and hence this study has aimed to probe into the prevalence, attitude and parental supervision of cyber bullying amongst 9th and 10th class students and intermediate students in India. These adolescents fall into the delicate age group of 14 to 18, where the present wide spread reach of the internet could influence them in many ways. The phenomenon of cyber bullying continues to be on the rise in India, with only a limited number of Indian based studies on adolescents to enlighten people about it when compared to the studies done abroad.

With this background, a cross sectional study was conducted to throw some light on this dreadful vine festering beneath our feet, or rather on the screens of Indian adolescents in the current cyber world.

METHODOLOGY

Objectives
- To assess the knowledge and prevalence of cyber bullying amongst male and female adolescents.
- To evaluate the demography most affiliated with cyber bullying.
- To compare the number of cyberbullies with cyberbullying victims in said demography.

Sample
A population size of 312 was evaluated after considering the minimum sample size of 300 obtained by study sample calculation, considering the prevalence and error reduction and the study took 2 months to complete between June to July of 2017.

Participants
A cross-sectional, questionnaire-based study was conducted on school student volunteers of grades 9, 10 and intermediate college students aged 14-18 studying at private organizations after obtaining parental and institutional consent. Only the students whose parents had signed the informed consent form handed out before the study and those belonging to class 9 and 10 and intermediate students were included in the study and those not falling into the above stated categories were excluded from the study.

The purpose of conducting this study in adolescents is due to four strategic reasons: one, the guidelines to popular social networking sites like Instagram and Facebook clearly mention an age limit of 13 years and above to be able to create an online profile on the respective social media website, and this is usually the child's first online independent presence. Two, the crest of adolescence is the time when children begin to wean from their parents in terms of privacy owing to puberty and begin to develop their personality as an individual; they explore their likes and dislikes and this extends to technology as well. But this novel sense of independence also makes it so that the children are less likely to report any problems they face to their parents or peers, in fear of ridicule or being banned from their gadgets altogether. Third, the adolescent mind is still in development and is hence malleable and sensitive to any external stressors and emotional bullying, which may worsen any

insecurities and mental health issues one may already possess, or possibly even create new ones. And lastly, the number of studies conducted on this age group in India is rather limited and this study also aims to establish the objectives based on biological sex.

The study was commenced after obtaining the approval of the Institutional Ethics Committee and followed the duly stated guidelines for research.

Materials and Methods
The students were briefed about the purpose of the study and on general awareness of cyber bullying after which a questionnaire, from Cyber bullying and Cyber threats: Responding to the Challenge of Online Social Aggression, Threats, and Distress developed by N.E. Willard (2007) [11] was handed out to the participants, whose identities are kept confidential. The questionnaire consists of 30 questions with sub-questions of multiple-choice type, which took approximately 10-15 minutes to complete.

In the present study, the evaluation of answers to Questions 11, which asked about personal involvement in cyber bullying, as a target or as a perpetrator will be carried out in great detail pertaining to the objectives of the study. All the data obtained was analysed using SPSS.23 software for statistical analysis.

RESULTS AND DISCUSSION

312 completely filled out questionnaires were considered and the blank forms were discarded. The answers to questions about prevalence of cyberbullying in the last 6 months were evaluated based on biological sex and divided between students of school and college. The results obtained were duly tabulated.

Table 1: Personal involvement of respondents in cyber bullying as targets or perpetrators

Question	Options	School total	School Males	School Females	College total	College Males	College Females
1) Been in an online fight	a) Yes, 1 to 4 times b) Yes, 5 or more times c) No	5.68% (5) 3.4% (3) 90.9% (80)	4.68% (3) 4.68% (3) 90.62% (58)	8.33% (2) 0% 91.66% (22)	19.64% (44) 3.57% (8) 76.78% (172)	19.46% (22) 3.53% (4) 76.99% (87)	19.81% (22) 3.6% (4) 76.57% (85)
2) Received messages that made you afraid for your safety	a) Yes, 1 to 4 times b) Yes, 5 or more times c) No	3.4% (3) 1.13% (1) 95.45% (84)	3.12% (2) 1.56% (1) 95.31% (61)	4.16% (1) 0% 95.83% (23)	10.26% (23) 1.78% (4) 87.94% (197)	3.53% (4) 0.88% (1) 95.57% (108)	17.11% (19) 2.7% (3) 80.18% (89)
3) Received mean or nasty messages	a) Yes, 1 to 4 times b) Yes, 5 or more times c) No	6.81% (6) 1.13% (1) 92.04% (81)	7.81% (5) 1.56% (1) 90.62% (58)	4.16% (1) 0% 95.83% (23)	18.3% (41) 4.91% (11) 76.78% (172)	13.27% (15) 3.53% (4) 83.72% (94)	23.42% (26) 6.3% (7) 70.27% (78)
4) Sent mean	a) Yes, 1	3.4%	4.68%	0%	8.48%	8.84%	8.1% (9)

Cyber Bullying – A Cross Sectional Study on The Prevalence and Ramifications of This Growing Enigma in Indian Adolescents

Question	Response	(88)	(64)	(24)	(224)	(113)	(111)
or nasty messages	to 4 times b) Yes, 5 or more times c) No	(3) 1.13% (1) 95.45% (84)	(3) 1.56% (1) 93.75% (60)	0% 100% (24)	(19) 2.67% (6) 88.83% (199)	(10) 4.42% (5) 86.72% (98)	0.9% (1) 90.99% (101)
5) Been put down online by someone via gossip or rumours or harmful materials?	a) Yes, 1 to 4 times b) Yes, 5 or more times c) No	3.4% (3) 1.13% (1) 95.45% (84)	4.68% (3) 1.56% (1) 93.75% (60)	0% 0% 100% (24)	9.82% (22) 1.78% (4) 88.39% (198)	9.73% (11) 0.88% (1) 89.38% (101)	9.9% (11) 2.7% (3) 88.28% (98)
6) Put down someone by posting cruel gossip or rumours or harmful materials?	a) Yes, 1 to 4 times b) Yes, 5 or more times c) No	1.13% (1) 0% 98.86% (87)	1.56% (1) 0% 98.43% (63)	0% 0% 100% (24)	2.23% (5) 0.89% (2) 88.39% (217)	2.65% (3) 1.76% (2) 95.57% (108)	1.8% (2) 0% 98.19% (109)
7) Been catfished and had your reputation or friendships damaged?	a) Yes, 1 to 4 times b) Yes, 5 or more times c) No	9.09% (8) 0% 90.9% (80)	10.93% (7) 0% 89.06% (57)	4.16% (1) 0% 95.83% (23)	8.48% (9) 0.89% (2) 90.62% (203)	10.61% (12) 1.76% (2) 87.61% (99)	6.3% (7) 0% 93.69% (104)
8) Catfished someone and posted material to damage reputation or friendships?	a) Yes, 1 to 4 times b) Yes, 5 or more times c) No	1.13% (1) 0% 98.86% (87)	1.56% (1) 0% 98.43% (63)	0% 0% 100% (24)	2.23% (5) 1.33% (3) 96.42% (216)	4.42% (5) 1.76% (2) 93.8% (106)	0% 0.9% (1) 93.29% (108)
9) Had someone leak your personal secrets or images online?	a) Yes, 1 to 4 times b) Yes, 5 or more times c) No	5.68% (5) 0% 94.31% (83)	7.81% (5) 0% 98.43% (59)	0% 0% 100% (24)	8.48% (19) 1.78% (4) 89.73% (201)	11.5% (13) 2.65% (3) 85.84% (97)	5.4% (6) 0.9% (1) 96.39% (104)
10) Leaked someone's personal secrets or images online?	a) Yes, 1 to 4 times b) Yes, 5 or more times c) No	5.63% (5) 0% 94.31% (83)	7.81% (5) 0% 92.18% (59)	0% 0% 100% (24)	3.12% (7) 1.33% (3) 95.53% (214)	0.88% (1) 0.88% (1) 98.23% (111)	5.4% (6) 1.8% (2) 92.79% (103)

Total=100% (88), Males=100% (64), Females=100% (24)   *Total=100% (224), Males=100% (113), Females=100% (111);*

The important dynamic addressed in this questionnaire was the issue of the respondents' involvement in cyber bullying, either as a victim, or as a cyber bully in the last 6 months as illustrated in Table 1, and will be the main focus of this study. Evaluating the replies given

in accordance to questions attempting to seek possible bullies out, it was seen that 3.4% of respondents wilfully agreed to sending out mean or nasty messages to someone 1 to 4 times. Another comparatively significant percentage of 5.63% reported sharing someone's personal material online 1 to 4 times. The highest scoring percentage in this line of questions to seek out bullies was 10.22% admitting to have helped excluding someone from an online group 1 to 4 times.

On the flip side, on evaluation of victims' responses, 6.81% admitted to having received mean or nasty messages from someone. One desperately essential question has asked if any of the respondents had taken fire in terms of friendships or reputation by being a victim of catfishing, which is when a person pretends to be someone else online and posting personal material online, 9.09% replied yes, 1 to 4 times. This tackles the issue of anonymity online and how easily it can be misused. 5.68% said someone had shared their personal materials online 1 to 4 times. 7.95% had been excluded from an online group 1 to 4 times and 3.4% 5 or more times.

8.48% intermediate students admitted having sent mean or nasty messages to someone 1 to 4 times with near equality maintained in male and female responses. 5.4% female respondents said they had shared someone's personal material online without their permission 1 to 4 times. 8.92% responded that they had helped exclude someone from an online group 1 to 4 times with 11.5% males and 6.3% females.

A fundamental 19.64% said they had been in an online fight 1 to 4 times and 18.3% had received mean or nasty messages with 23.42% being female. 10.26% students; 17.11% being female admitted having been afraid for their safety due to online messages 1 to 4 times. 9.82% had been put down online by cruel gossip or rumours. 9.9% of them were female. 8.48% respondents had catfished them and posted their personal materials online 1 to 4 times; 10.61% of these were males. Further, 8.48% had their secrets or personal images shared online 1 to 4 times with 11.5% males. 10.71% had admitted to being excluded from an online group 1 to 4 times, 12.38% being male.

It was found through the present study that 39.7% school students; 54.6% males and 12.5% females reported to be victimized by cyber bullying in more than one ways such as having been sent "nasty or mean" messages (7.9%), messages that threatened their safety (4.5%), put down by cruel gossip or rumours (4.5%), having their personal secrets and images posted online without their permission (5.6%), having someone pretend to be them and upload personal messages or material (20.4%), and being excluded from an online group (11.3%), from one or more times in the last 6 months alone. The figures assimilating replies of girl school students fall short possibly attributing to the fact that the sample size of viable female responded questionnaires were significantly lesser (24 girls versus 64 boys) even after ruling out the variation in population based on gender.

On the other hand, a whopping 74.1% intermediate students; consisting of 72.5% males and 84.6% females felt to be the victims of cyber bullying one or more times in the last six months through the following means: having been sent "nasty or mean" messages (23.2%), messages that threatened their safety (12%), put down by cruel gossip or rumours (11.6%), having their personal secrets and images posted online without their permission (10.2%), having someone pretend to be them and upload personal messages or material (4.9%), and being excluded from an online group (12%), from one or more times in the last 6 months

alone. This peak in the percentages of cyber victims in intermediate college could be explained by increased time of exposure (41.07% spending ≥3 hours online), and exposure to a greater number of sites. These results are comparable to the percentages of respondents who experienced hurtful messages (46%), threats to their safety (6%), hurtful rumours and gossip (41%), pictures uploaded online without consent (22%) fake profile in someone's name (32%), exclusion from an online group (29%). [7] The results vary probably due to a different sample size of that and a wider age group.

On the flip side, 31% students were found to be cyber bullies. One aspect that can be observed here is that intermediate college students scored higher on the lines of bullying (33.9% including 42.4% boys and 25.2% girls) when compared to 23.8% school students of grades 9 and 10; with 32.8% males and 0% females had admittedly bullying someone one or more times in the last six months. The reason attributed to this fact could be increased exposure of college students again, or due to the drawbacks in the sample size of lesser school students compared to college students. Furthermore, it can be seen that boys tend more to be cyber bullies (38.9%) and girls cyber victims (71.8%).

CONCLUSIONS

The prospects of the present study had expected to reveal at this juncture the prevalence of cyber bullying in Indian adolescents aged 14-18. It was discovered that well over a half of the students evaluated, i.e., 201 out of 312 amounting to 64.4% had the misfortune of being victimised in the throes of cyber bullying in one way or another. Following several studies that had been conducted in India as well as abroad, this study has also followed their trail and reported a higher percentage of female respondents victimised by cyber bullying, amounting to 71.8% when compared to 66.1% male respondents. The number of respondents that had cyber bullied someone was found to be 87 which amounted to 31%. A higher number of males were discovered to be the bullies, while female cyber bullies amounted only to 20.7%. It is quite possible that the imminent future will see higher percentages of cyber bullies as well as victims, seeing that these figures have only increased in the last decade, and may soon prove to be a significant problem due to the ramifications that this phenomenon of cyber bullying has posed. Thomas (2006) also found anxiety, school phobia, depression, lowered self-esteem, emotional distress and suicide were acknowledged as potential results of being a victim of cyberbullying among adolescents aged 13-18. [8] This could be only the tip of the ice berg unless this problem is tackled with at the very roots. Cyber bullying therefore calls for more research studies to be conducted in order to better understand this enigma and thereby present solutions, in order to create a safer environment online especially for the younger population.

REFERENCES

[1] Tokunaga R, S, (2010), "Following you home from school: A critical review and synthesis of research on cyberbullying victimization", *Science Direct: Computers in Human Behavior*, Vol. 26 (3); Pages: 277–287.

[2] Lohmann, R, (2012), *Cyberbullying versus Traditional Bullying*, Retrieved from [May 14, 2012], https://www.psychologytoday.com/us/blog/teen-angst/201205/cyberbullying-versus-traditional-bullying

[3] Lenhart, A, (2015), *Teen, Social Media and Technology Overview,* Retrieved from [Apr. 9, 2015], https://www.pewresearch.org/internet/2015/04/09/teens-social-media-technology-2015/

[4] Schneider, S, (2012), "Cyberbullying, School Bullying, and Psychological Distress: A Regional Census of High School Students", *Am J Public Health*, Vol. 102(1) DOI: 10 .2105/AJPH.2011.300308; Pages: 171–177

[5] Lavanya, R, (2014), "A Study on the Prevalence of Cyber Bullying in Chennai", *Middle-East Journal of Scientific Research,* Vol. 22 (5) DOI: 10.5829/idosi.mejsr.20 14.22.05.21950; Pages: 661-672.

[6] School children in India are most vulnerable to cyber bullying. *Hindustan Times.* Retrieved December 26, 2016, from https://www.hindustantimes.com/sex-and-relationships/school-children-in-india-are-most-vulnerable-to-cyber-bullying/storyY UYDMkTTYm6ZHqYqGFcH0M.html

[7] Vohra, A, (2016), *Cyberbullying: A Study of Causes, Implications and Mitigation,* Retrieved from [Aug. 24, 2016], https://papers.ssrn.com/sol3/papers.cfm?abstract_id= 2827344

[8] Schenk, A, M, (2012), "Prevalence, psychological impact, and coping of cyber bully victims among college students", *Journal of School Violence*; Vol. 11(1); DOI:10.1080/15388220.2011.630310; Pages: 21-37.

[9] Cowie, H, (2013), "Cyber bullying and its impact on young people's emotional health and well-being", *The Psychiatrist;* Vol. 37(5); DOI: 10.1192/pb.bp.112.040840; Pages: 167-170

[10] Gentile, D, (2013), "Pathological technology addictions: What is scientifically known and what remains to be learned", *The Oxford Handbook of Media Psychology,* DOI:10.1093/oxfordhb/9780195398809.013.0022; Pages: 382–402.

[11] Willard, N, E, (2007), *"Cyberbullying and Cyberthreats: Responding To The Challenge Of Online Social Aggression, Threats, And Distress",* Research Press Publishers, Champaign, IL, ISBN: 9780878225378