Research Paper

Effects of Cyberbullying on Academic Performance

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ABSTRACT

Cyberbullying is defined as an intentional, aggressive, and repetitive behaviour in which an individual or group uses electronic devices, primarily the Internet and smartphones, to bully someone who is unable to defend himself/herself (Aboujaoude et al. 2015; Bulega et al. 2017).The prevalence of technological bullying by peers ranges from 5% to 72% (Aboujaoude et al. 2018; Kowalski et al. 2014), with an average incidence rate of cyber-victimization of 23% in the adolescent population (Hamm et al. 2015). As a result, there is a significant disparity in the findings of different scientific studies, most likely due to the use of different methodological measure and strategies to assess cyberbullying and cyber-victimization (Buelga et. al.2012; Vivolo-Kantor et al. 2014). Cyberbullying has clearly become a growing problem among youth in every country around the world in recent years (Antoniadou et al. 2016; Lee and Shin 2017; Yubero et al; Zych et al. 2016). The purpose of this study is to look into the effect of cyberbullying on academic performance among high school students in Surat. The study included 92 high school students ranging in age from 14 to 19 years. The scale used to measure the adolescents experience as a victim of cyberbullying in the past 12 months was "Cyber Victimization Scale (CYBVICS)". CGPA of the students were collected, average was calculated. The SPSS programme was used to analyse the data and to analyse the collected results regression was used. This study hypothesises that cyberbullying is a significant predictor of academic performance among school-age students. Regression analysis of data shows that cyberbullying is a significant predictor of academic performance in school-aged students. The findings show that cyberbullying is a statistically significant predictor of academic performance.

Keywords: *Academic performance, Cyberbullying, Cyber Victimization Scale, CGPA, Social media usage, Students*

S ince the early 1990s, the school has been more than just a place for learning; it has also been a place where students are harassed and subjected to peer harassment (Juvonen, Wang, & Espinoza, 2011). Bullying is a social problem, and one out of every three people randomly chosen has been bullied physically, verbally, or socially (Misawa, 2010).

Bullying has an impact on both the victim and the perpetrator, and it can have both immediate and long-term consequences (Aleem,2016). Bullying and peer victimisation always have direct or indirect effects on victims and can lead to poor academic performance

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(Holt, Finkelhor, & Kantor, 2007). School harassment, peer victimisation, and bullying, according to Nishina, Juvonen, and Witkow(2005), have contributed to a decrease in classroom activities and school engagement, which has a negative impact on academic performance and achievement.

A school is a place where students spend the majority of their time learning and growing (Darling-Hammod, Flook, Cook-Harvey, Barron, & Osher, 2019). Students who are supported by their teachers have a greater sense of belonging, are more engaged, have fewer behavioural issues, and perform better academically (Konishi, Hymel, Zumbo & Li, 2000). In contrast, an unhealthy school environment has a negative impact on a student's academic achievement (Strom, 2013). Academic achievement is important for education around the world, and several studies are being conducted on the physical factors that may affect educational performance (Steinmayr, Crede, McElvany, & Withwein, 2016). Externalizing factors, such as theft and vandalism, as well as oppositional problems, have an impact on students' academic performance. Internalizing factors such as depression symptoms and anxiety have a negative impact on a student's performance (Tremblay et al., 2012).

Bullying and peer victimisation always have an impact on the victims, either directly or indirectly, and they lead to poor academic performance (Holt, Finkelhor, & Kantor,2007). Any type of learning has the goal of excellent academic performance, and when that goal is not met, learning is ineffective. Several efforts must be made based on such assumptions to ensure academic achievement.

Academic achievement is the result of any individual's performance in the learning process with goals set for the instructional environment in schools, colleges, and universities (Steinmayr et al., 2016). Any type of motivation has a significant impact on academic performance (Effie, 2005). For example, if students are unmotivated but find themselves in environments that discourage them from studying, their academic achievement is low (Dweck, 2007).

Bullying is no longer considered a normal rite of passage, but rather a major public health issue with serious long-term consequences in schools (Swartz,2016). Some children and adolescents are bullied in schools, and they are bullied through various electronic means (Swartz,2016). Bullying causes a variety of physical symptoms in children and adolescents, including headaches and sleep disturbances. Bullying in schools can also lead to anxiety, depression, and substance abuse, particularly among adolescents (Menesini & Salmivalli, 2017). Similarly, perpetrators face long-term consequences such as an increased risk of depression and may engage in criminal activities such as vandalism and theft (Swartz,2016). The definition of bullying is a major challenge in bullying research (Espelage et al.,2003). There are several distinct definitions of bullying, but not everyone agrees on them (Cowie & Jennifer, 2008).Bullying research began over 40 years ago and was defined as aggressive behaviour committed intentionally by an individual or group of people on a regular basis against victims who are unable to defend themselves (Menesini & Salmivalli, 2017).Most scholars agree that bullying is an intentional aggressive act intended to harm another person and create a power imbalance between the aggressor and the bullying victims (Dodge,1991; Olweus,1993; Rivers & Smith,1994; Smith & Thompson,1991).Bullying is also defined as a dynamic interaction between the aggressor and the victim in which the perpetrators gain power while the victims lose power. Victims lose power and are unable to cope with or respond to the problem (Menesini et al.2012; Swearer & Hymel,2015). Bullying is characterised by repeated actions, such as physical contact, verbal assault, nonverbal

gesture, or deliberate social exclusion, that are intended to cause distress to a person perceived to be vulnerable. It is a one- way exercise of power.

Bullying is the intentional harming of another person, whether verbally, psychologically, or physically. Bullying is frequently repeated over time and involves a power imbalance. Bullying behaviours include hitting, pushing, or unwanted physical contact, teasing and name-calling, repeated exclusion of an individual from games and activities, sending threatening or mean-spirited messages via text, chat, or voicemail, and spreading harmful rumours (Olweus, 2005).

It could be a threat or use of physical force directed at an individual, another person, or a specific group, resulting in injury, death, physical damage, or mental disorder. Bullying is also a source of discomfort in many parts of the world today (Bonke,2005). Bullying is defined by Olweus (2001) as a subcategory of inter-personal aggression characterised by intentionality, repetition, and an imbalance of power, with the primary distinction between bullying and other forms of aggression being the abuse of power. Bullying can take a variety of forms, ranging from direct physical harm (Physical bullying) to verbal taunts and threats (Verbal bullying); exclusion, humiliation, and rumor-spreading (Relational or social bullying); and electronic harassment via text, email, or online medium (cyberbullying). Although physical and cyberbullying are frequently the most concerning, social and verbal bullying is the most common form of bullying experienced by students (Vaillancourt,2010). Bullying, according to Espelage (2004), is an ecological phenomenon that develops and persists over time as a result of the complex interplay between the individual child, family, peer group, community, and culture. Bullying is typically inherited by some individuals from their parents in order to forcefully achieve some goals (Mitchel,2015). Interaction in culture, school, and other socio- political settings may also cause others to learn bullying in some way.

Bullying is classified into five types: physical bullying, verbal bullying, social bullying, reactive victims, and cyberbullying. Each of them has a unique context in which the perpetrators engage in bullying (McLellan & Seddon,1997Physical bullying is the most common type of bullying found around the world.

Modern technology is constantly evolving, and it has recently manifested itself in a very serious social problem known as cyberbullying. Modern technology is a two-edged sword; on the one hand, it connects us, but on the other, it increases emotional stress (Michel, 2011). As a result, young internet users, including students, may be vulnerable to cyberbullying. Victims who are under a great deal of emotional stress are unable to concentrate on their studies, and thus their academic progress suffers (Juliana, 2010). Unfortunately, institutions of higher learning, teachers, parents, and others pay little attention to global problems. Cyberbullying's depressive effects prevent students from excelling in their studies. Lauren (2011).

Cyberbullying is defined as the anonymous electronic posting of hurtful messages about a person (such as a student) (Merriam-Webster, 2017). The majority of cyberbullying investigations have been conducted with students aged 9 to 18 in elementary, middle, and high school. Those students investigated the prevalence and frequency of cyberbullying. In 2009, 2012, and 2013, one article was published each year; however, since 2014, there have been few publications each year. Only seven of these articles are about the effects of cyberbullying on students, so there is a gap in the literature because it only reports on studies

involving undergraduate students. Given their relationship and access to technology, cyberbullying is likely to be common among undergraduates. The study's goal is to look into the effects of cyberbullying on the academic development of undergraduate students.

Undergraduate students access the internet for a variety of reasons. These purposes include creation, such as communicating in online groups or playing games; academics, such as doing assignments, researching scholarships, or completing online applications; and students, who increasingly use the internet for social communications.

Victims of online bullying experience negative psychological outcomes such as depression, anxiety, social dissatisfaction, negative school attitudes, and, in some cases, substance abuse, as demonstrated by Egeberg et al and Slonje et al, as well as suicide attempts and physical harm. Given the potential negative consequences of online bullying, Wong and Egeberg et al. emphasised the need to delve deeper into how victims cope with cyberbullying and harassment, as well as their coping strategies.

Victims have been known to respond to harassment threats in a variety of ways, but little attention has been paid to their academic impacts and outcomes, particularly how victims are affected by the threats. While some studies have looked into the impact of bullying on academic achievement, the results have been inconclusive. For example, in the Glew et al study, the authors discovered that victims and bullies in schools had lower academic achievement rates, which was proven to be significant despite the reported odd ratios indicating low effects. Furthermore, Woods and Wolke discovered the effects of direct bullying, as a victim or a bully, on students' academic achievement in the second and fourth grades. In the case of indirect bullying, the effects were also revealed for the victims (indirect / relational), but bullies were found to perform better academically.

In a related study, Strom et al found that bullying has a negative impact on students' grades and that being bullied is associated with lower achievement - this held true even when students attended schools with high bullying levels.

More importantly, the effects of bullying in schools are all-encompassing and have far-reaching consequences. Mentally, a child's self-esteem can be harmed even years after the bullying incident. Bullying victims may experience depression, particularly in cases of long-term bullying. It is critical to recognise that mental effects affect not only the victims but also the bully. Those who bully others have a long history of academic and social problems, and there has been a link between bullying, sexual harassment, and violence in the future.

Bullying in schools causes unimaginable problems for students, parents, and educational institutions; however, little has been done to assist those victims who are constantly trapped in the name of modernization and digitalization (Waston,2010). Researchers agree that the stressful impact of bullying is increasing in tandem with the rapid advancement of technology (Justin,2011). Many students who are victims of cyberbullies suffer in silence; they are hesitant to complain to authorities or their parents due to the social stigma associated with bully victims (Susan, 2011). As a result, parents and teachers must be on the lookout for such occurrences.

The internet has ushered in a new era of communication. Our youth are now addicted to electronic communication tools. It is undeniable that electronic communication has significantly improved our lives, but there is a downside to this technological advancement.

Cyberspace has the potential to be a site of violence, victimisation, and oppression (Faye,2011). According to Olweus (1993), "a student is bullied or victimised when he or she is repeatedly and over time exposed to negative actions by one or more other students." Bullying is defined as displaying aggressive behaviour toward another person without provocation with the intent to cause harm.

It also implies that the harm is done repeatedly over time, with a disparity in strength and power between victims and cyber criminals. According to Kowalski (2011), electronic bullying or cyberbullying simply refers to the use of the internet to cause psychological and emotional distress. Olthof (2011) defines cyberbullying as an individual's strategic behaviour to dominate another individual or a group of individuals. Cyberbullying is defined by the Oxford Dictionary as the use of electronic communication to bully a person, typically by sending intimidating or threatening messages. According to Wikipedia, cyberbullying is a deliberate act of aggression that uses technological advances such as the internet to cause harm to another person. This aggression can be repeated and intentional hostility. When the internet, cell phones, or other devices are used to send or post text or images intended to hurt or embarrass another person, this is referred to as cyberbullying.

Cyberbullying causes significant harm to an individual or group of people by exposing their personal information, real names, and addresses to criminals with malicious intent toward the targeted individual or group. Cyberbullying can include such acts as making threats, sending provocative insults or racial or ethnic slurs, gay bashing, attempting to infect the victims computer with a virus, and flooding an email inbox with messages.

According to Olweus (1986,1993), the following are some symptoms of cyberbullying victims:
- Anxious, insecure, and unhappy, with low self-esteem.
- Caution, sensitivity, silence, withdrawal, and shyness.
- Depressed and suicidal ideation occurred much more frequently than in their peers.
- Do not have a single good friend with whom to discuss the problem.
- They are frequently physically weaker than their classmates.

Cyberbullies exhibit the following characteristics:
- Other antisocial activities, such as drug use, are frequently involved.
- Impetuous and easily enraged.
- There is a strong desire to dominate other students.
- Demonstrate little empathy for students who have been victimised.
- Physically stronger than the rest of the class.
- Frequently defiant and aggressive, even toward parents and teachers.

Cyberbullying occurs when a person's name is used to publish derogatory materials online, resulting in character assassination of the victim. Character assassination can occur via email, chat room, SMS, phone calls, social network, twitter, Myspace, Facebook, discussion boards, online forums, blogs, instigation, and rumours. According to recent findings, cyberbullying is becoming a worldwide problem that is growing at an alarming rate. (John,2011). The psychological effects of cyberbullying in our society and institutions can no longer be ignored (Bulent,2009). As the social networking domain expands in cyberspace, cyber criminals will have more opportunities to victimise young, unsuspecting

internet users (Allison,2009). According to research, cyberbullying causes emotional and physiological harm to defenceless victims. (Yavuz,2010).

METHODOLOGY

Objectives

The study's goal was to look into the effect of cyberbullying on academic performance in high school students.

Sample

The current study included 92 school-age students from Surat ranging in age from 14 to 19 years old who completed a google questionnaire. The sample was collected using the convenience sampling technique. Only Surat high school students were considered for this study.

Hypothesis

H1: Cyberbullying will be a significant predictor of academic performance on school going students.

H0: Cyberbullying will not be a significant predictor of academic performance on school going students.

Inclusion Criteria:

- Students in grades 9th and 11th were considered.
- Students ranged in age from 14 to 19 years old.
- Only school-aged students from Surat city were considered.

Exclusion Criteria:

- Students with physical and mental disabilities were not considered.
- Students from areas other than Surat were barred.
- Students before 9th standard were barred from participating.

Procedure

In order to collect the data, a google form was created and circulated among 92 school going individuals. The form consisted of 4 parts: Informed consent, Demographic details, Questionnaire, Debriefing section. Basic information about the study was already mentioned in the form and email address of the researcher was provided in case the participants had questions regarding the study before they decide to make an informed choice or if they wanted to withdraw from the study due to any reason. Demographic information include name, gender, age, email address was collected. The main body of the form was section 3rd i.e., it measures the adolescents experience as a victim of cyberbullying in the past twelve months. A validate psychological test was used in the upper part. There were separate instructions were provided prior to the starting of the test. The respondents were asked to answer based on their feelings. It was made sure that the participants information was kept confidential. The aim of the study and information about the psychological assessment used were provided under the column of debriefing at the end of the questionnaire. It was made sure that all the ethics like debriefing, withdrawal from the study were followed. After the data was collected to analyse it SPSS software was used.

Tools Used:
Following are the two-test used while data collection:

- **Cyber-Victimization Scale (CYBVICS):**

This scale is a modification of the Adolescent Victimization from Mobile Phones and the Internet Scale (CYBVIC; Buelga et al. 2010,2012). This new scale is an updated version of the previous scale, as the distinction between cellphone and Internet no longer makes sense with the use of smartphones. Furthermore, in addition to the items on the original scale, there are eight other items. As a result, the Cyber-Victimization Scale is made up of 18 self-reported items that are rated on a 5-point Likert-type scale ranging from 1 (never) to 5 (always) (always). This scale assesses adolescents' experiences as victims of cyberbullying in the previous 12 months. Because of its greater ability to detect adolescent cyber-victim behaviour, a self-report measure was developed.

To begin adapting the questionnaire, we began with the items on the CYBVIC validated scale and, after reviewing the literature and other scales used in the previous three years (Antoniadou et al.2016), we developed a list of 23 cyber-victimization behaviours. This preliminary questionnaire was distributed to an experimental sample of 48 adolescents aged 12 to 16. The goal was to investigate potential difficulties in understanding the items and determine whether the adolescents would add to or remove any of the cyber-victimization behaviours from the questionnaire. One item on the list was difficult to understand for some adolescents, and another item referred to a behaviour that was not currently being performed. Concurrently with the adolescents, three experts in adolescence and cyberbullying examined the items' clarity and thoroughness. These judges also suggested that another item be removed, so the questionnaire was reduced to 20 items. Finally, two items with a saturation inferior to 0.20 in the Exploratory Factor Analysis (EFA) were removed, leaving the final questionnaire with 18 items.

- **The Cumulative Grade Point Average (CGPA):**

The Cumulative Grade Point Average (CGPA) is an academic grading system. It is used to evaluate a student's overall academic performance in schools and universities. To begin, grades (A, B, C, D, or F) are assigned to students based on their performance.

Statistical Tools:
Descriptive Analysis: Mean, Standard Deviation
Inferential Analysis: Regression

Ethics:
- Confidentiality was maintained.
- Informed consent from potential research participation was taken.
- Detailed debriefing was given to the participants of the study.
- Anonymity was maintained.
- Participants had all the rights to withdraw themselves from the study whenever they wish to.
- No harm was done to the participants while conducting the research.
- Avoid using deceptive practice.
- Transparency was maintained during the research.
- No discrimination was done among the participants during research.

RESULT AND INTERPRETATION

To achieve the study's goal, both descriptive and inferential statistics were used. As a statistical tool, regression was used. These descriptive statistics were also used to comprehend the nature of the data. The data collected for the Effect of Cyberbullying on Academic Performance among School-Age Students.

Table1.1: Descriptive analysis for Effects of Cyberbullying on Academic performance.
Descriptive Statistics

	N	Mean	Std. Deviation
Cyberbullying	92	33.9239	11.60166
CGPA	92	7.2935	1.28848
Valid N (listwise)	92		

The sample size for the descriptive analysis is 92 school-age students. Cyberbullying has a mean value of 33.9239 and a standard deviation of 11.60166. The mean CGPA is 7.2935, and the standard deviation is 1.28848.

Table1.2: Regression analysis for Effects of Cyberbullying on Academic performance.
Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	6.069	.397	.325	15.299	.000
1	Cyberbullying	.036	.011		3.260	.002

a. Dependent Variable: Cgpa

In the Regression table the value of B In cyberbullying is .036, Std. Error value is .011, the beta value is .325, the t value is 3.260, and the significance value is .002.

H1: Cyberbullying will be a significant predictor of academic performance on school going students.

Unfortunately, little has been done to help victims who are perpetually trapped in the name of modernization and digitization (Waston,2010). According to researchers, the stressful impact of bullying is increasing with the rapid expansion of technological advancement (Justin,2011). Because of the social stigma associated with bully victims, many students who are victims of cyberbullies suffer in silence; they are hesitant to complain to authorities or their parents (Susan, 2011).

According to the literature, cyberbullied victims frequently suffer from depression, loneliness, low self-esteem, school phobias, and social anxiety. Furthermore, research findings show that cyberbullying causes emotional and physiological harm to helpless victims, as well as psychosocial difficulties such as behaviour problems (Ybarra and Mitchell,2007), drinking alcohol (Selkie et al.,2015), smoking, depression, and poor academic performance.

Furthermore, research findings show that cyberbullying causes emotional and physiological harm to helpless victims, as well as psychosocial difficulties such as behaviour problems

(Ybarra and Mitchell,2007), drinking alcohol (Selkie et al.,2015), smoking, depression, and poor academic performance.

Storm et al. reported in a related study that bullying has a negative effect on students' grades and that being bullied is associated with lower achievement. The authors discovered that being subjected to multiple types of violence (sexual abuse, violence by other youth/adults, or bullying) had the greatest negative impact on academic achievement. Similarly, Kowalski and Limber discovered that both traditional bullying and cyberbullying had a negative impact on academic achievement, with cyberbullying having the greatest impact.

More importantly, the effects of bullying in school are all-encompassing and far- reaching. A child's self-esteem can suffer psychologically even years after a bullying incident. Bullying victims may experience depression, especially if they have been bullied for a long time. It is critical to understand that mental effects affect both the victim and the bully.

As a result, we accept our alternative hypothesis, which states that cyberbullying is a significant predictor of academic performance in school-age students.

CONCLUSION

Thus, based on the current data and literature review, it is possible to conclude that this study's findings revealed that cyberbullying exists all around us and has an impact on students' academic, social, and emotional development.

Cyberbullying has been observed via electronic media such as email, instant messaging, chat rooms, text messaging, and other social networking sites. Students who are cyberbullied have been shown to have academic issues, interpersonal issues, family issues, depression, substance abuse, suicidal ideation, and low self-esteem.

Students have clearly expressed a preference for using the internet as a mode of communication, and they use it frequently in their daily lives. As more aspects of students' lives are conducted online, and with the knowledge that excessive use may result in consequences, it is critical to conduct a more thorough investigation of the phenomenon of cyberbullying.

Because there has been very little research on the effect of cyberbullying on undergraduate students, especially given the availability of handheld devices (primarily smart phones) and the reliance on the internet for virtually every activity, the study's additional data adds to our understanding of the effects of cyberbullying on the welfare of undergraduate students.

Limitation
- The sample size was 92 students, generalising the data to other students is difficult.
- Convenience sampling technique was used.
- Data was collected from only 92 students, making it difficult to represent.
- The data was gathered in Surat, it cannot be generalised to Gujarat or India.

Future Implications
- The current study used a non-probability sampling technique, future researchers can use probability sampling technique to make sample more representative of the population.

- This distinction between male and female can also be studied.
- A questionnaire is being used to study the variables. The vulnerability to cyberbullying is assessed by the questionnaire. As a result, it will be fair to conduct future research that studies this variable qualitatively and provides a more concrete foundation for studying the relationship.
- Always support and create an environment that protects students from cyber criminals.

REFERENCES

Peled, Y. (2019). *Cyberbullying and its influence on academic, social, and emotional development undergraduate student.* Heliyon, 5(3)

Alotaibi, N.B. (2019). *Cyberbullying and the Expected Consequences on the students Academic Achievement.* IEEE Access,7(10)

Faryadi, Q. (2011). *Cyberbullying And Academic Performance.* International Journal of Computation Engineering Research/ISSN, 1(1)

Egeberg, G. and Thorvaldsen, S. and Ronning, J. A. *The Impact of Cyberbullying and cyber harassment on academic achievement.* UIT- The Arctic University of Norway

Buelga, S. and Martinez-Ferrer, B. and Jesus Cava, M. and Ortega-Baron, J. (2019). *Psychometric Properties of the CYBVICS Cyber-Victimization Scale and Its Relationship with Psychosocial Variables.* Social Science 8(1)

Mbah Mbah, R. (2020). *The Perception of Students About School Bullying and How It Affects Academic Performance in Cameroon.* Memorial University of Newfoundland

Webster, R. (2013). *Cyberbullying And Behavioural Outcomes in A Middle School Setting.* California State University, Northridge