

# Exploring the Effect of Anonymity in Cyberbullying of Females in Higher Education Institutions in India

Meenakshi Ingole<sup>1</sup>, Vinod Kumar Kanvaria<sup>2</sup> & Hitesh Kumar Mandal<sup>3</sup>

<sup>1</sup>Assistant Professor, Department of Education, University of Delhi, Chhatra Marg, Delhi,

Email: meenakshi.ingole21@gmail.com mringole@cie.ac.in

<sup>2</sup>Associate Professor, Department of Education, University of Delhi, Chhatra Marg, Delhi

<sup>3</sup>Research Assistant, Department of Political Science, Faculty of Social Sciences, University of Delhi, Chhatra Marg, Delhi

## Abstract

*The rise of electronic information technology, as well as the resulting ease of access to it, has increased the frequency of incidences of cyberbullying, particularly in the twenty-first century. It has become such a kind of global issue that governments and other concerned authorities are still struggling to address it. The increase in cyberbullying involves age as well as gender-oriented cyberbullying. It is a significant issue that threatens the young generations, especially females, self-esteem and obscures their future prospects in India, and it cannot be ignored. In light of this troubling situation, this paper aims to explore the idea of anonymity in cyberbullying and examine the relationship between anonymity and gender-oriented cyberbullying of female students in Indian Higher Education Institutions. The data were also collected using the cyberbullying scale from four different universities in India and the study was carried out on a sample of 1473 female respondents. The findings of the study on cyberbullying of female students in Indian higher education institutions show that 38.08 per cent of the female victims believe that the perpetrator pretends to be someone else as anonymous while treating the victims badly through the internet or phone calls as to cyberbullying them. At the same time, 25.86 per cent of the female students also responded positively to life-threatening cyberbullying incidents that mostly happened through cell phones or internet messages.*

**Keywords:** Cyberbullying, Higher Education, Anonymity, Gender

## Introduction

The conceptualization of cyberbullying as a form of electronic bullying poses a well-known risk that arises out of technological advancement in the twenty-first century. It consists of “voluntary and repeated actions against one or more people using computers and electronic gadgets” (Aboujaoude et al., 2015). On a day-to-day basis cyberbullying is becoming more prevalent in modern societies with the increasing process of digitization.

The tremendous effect of digitization leads to a serious threat to the privacy matter of individuals through the digital platform. Recently, the pandemic has accelerated the use of digital devices at an unprecedented rate and transformed the nature of usual life activity towards the technological world. Despite its vast success, the use of technology has always been accompanied by its misuse leading to victimizing of the innocent ones, especially females, through cyberbullying. The surge in the use of

technology allows the perpetrator of cyberbullying to act in an anonymous scenario of the digital world. The anonymous nature of cyberbullying hinders making the policy to counter it at the mass level which leaves the victim helpless and feared.

Thus, the purpose of this research is to document cyberbullying victimization of young girls and women in Indian higher education institutions.

### **Objectives**

- A. To study the concept of cyberbullying in an anonymous environment
- B. To analyse the effect of anonymity in gender-specific cyberbullying in higher education.

### **Research Questions**

1. What is the concept of cyberbullying in an anonymous environment?
2. How does the nature of anonymity affect gender-specific cyberbullying for the females studying in higher education?

### **The Rationale of the Study**

The anonymous environment of cyberspace provides a safe place for cyberbullying any individuals that mostly victimize the vulnerable group of society like children and females. In higher education institutions many students become a victim of cyberbullying due to various reasons. Among these various reasons, female students are believed to suffer gender-oriented victimization in the cyber world. Thus, it becomes essential to know how to tackle online cyberbullying in this anonymous environment. Moreover, it is expected to know the relational understanding of cyberbullying of female students with its nature of anonymity. The females studying in higher education explore a lot of synchronous and asynchronous

environments but are not aware of the cyber safety and repercussions of cybercrimes. Higher education female students are many a time in the starting phase to explore communication and technology, and because of a lack of awareness about digital etiquette and technical skills females either become a victim of cyberbullying. Therefore, it is expected to give more emphasis on gender-specific cyberbullying for females studying in higher education and to account for the victims' as well as perpetrators' experiences in the anonymous environment.

### **Concept of Cyberbullying**

Cyberbullying is generally defined as a "voluntary act, in which the action is intentional and not accidental"; "repetitive act, in which the activity is repeated over time and not restricted to a single incident"; it engrained "perception of damage by the victim, in which the victim perceives the damage inflicted"; Cyberbullying is carried out "through the use of electronic equipment such as computers, cell phones, and other electronic gadgets" (Ferrara et al., 2018; Kowalski et al., 2014). The use of electronic gadgets allows the perpetrator to hide behind a wall of anonymity. Qualitative studies on cyberbullying posit that anonymity "raises the level of experienced fear because anyone, including friends or other trusted people, could be the bully" (Badiuk, 2006). On the internet, anonymity can take many forms. However, many authors denied accepting that anonymity is a necessary condition in defining the behaviour of cyberbullying (Barlett et al. 2016). This is due to the reason that victims of cyberbullying might be aware of who bullied them but this possibility always lacks strong conformity.

Providing the denial of anonymity as an important determining factor of cyberbullying, Knack et al., 2021

describe anonymity as a situation where individuals can hide their presence from other people, including other bystanders, and victims. Knack et al., 2021 also argue that anonymity is a key component of cyberbullying, and it refers to “anonymous posts and interactions in which a person’s identity cannot be identified by looking at their IP address, usernames, or handles”. Further, “anonymity can also be used as a description when the actual name/identity of a person’s offline presence is more difficult to determine even in the obvious existence of an online one” (Knack et al., 2021).

The anonymous form of cyberbullying was found to be more severe because of the fact that the content can be shared among a larger audience within a very short period of time. Due to its severity in terms of anonymity, the effect of cyberbullying can be observed at the psychological level which might lead to feelings of helplessness and constant fear (Sticca & Perren, 2013). These feelings of helplessness and constant fear provide a possible explanation for associating cyberbullying experiences with depressive symptoms (Machmutow et al. 2012; Roth and Cohen 1986).

### **Gender Oriented Cyberbullying**

Cyberbullying and cyber victimization have been studied in several kinds of literature with regard to gender, and the results have been inconsistent (Saleem et al., 2021). According to several studies, females are more likely than males to be victims of cybercrime (Saleem et al., 2021). However, a few studies also suggest that men are getting more victimized through cyberbullying in comparison to women. There have also been reports of results with no significant differences (Saleem et al., 2021). At the same time, some argue that “women are more commonly targeted” (Sourander et al., 2010), and “men cyberbully more

and to a greater extent” (Guo, 2016; Sest & March 2017). Jagayat & Choma (2021), widely explain the platforms used for cyberbullying ranging from gaming platforms to social networking sites (Jagayat & Choma, 2021). These online networking platforms have inherited and normalized the repressive structures and phenomena of old patriarchal cultures, resulting in the subtle patriarchal oppression of women (Gray, Buyukozturk & Hill, 2017).

A “Cyber Violence against Women and Girls” report by the United Nations (UN) presents a “call-to-action towards extreme forms of cyberbullying towards women, amidst a rise in highly publicized cases” (UNBC & UN, 2015). Recently UNFPA has launched a ‘body right’ campaign to end gender-oriented cyberbullying of women in the increasing scenario of digitalization. The campaign highlights that corporate logos and copyrighted IP are more highly valued and better protected online than images of human bodies, which are often uploaded to the internet without consent, and used maliciously leading to cyber victimization of people, especially women (United Nations Population Fund, 2021).

### **Cyberbullying in Higher Education**

The prevalence of cyberbullying in higher educational institutions has been mapped out in many academic kinds of literature. According to Beebe’s (2010) study, “50.7 per cent of undergraduate students reported experiencing cyberbullying victimization once or twice in their college tenure” (Beebe, 2010). Dilmac (2009) observed that “22.5 per cent of the students cyberbullied another person at least once” and “55.35 per cent reported being a victim of cyberbullying at least once in their lifetime” (Dilmac, 2009). According to Y. Peled (2019), summarized the earlier literature on cyberbullying of students in higher education and resulted in

arguing that the percentage of students getting cyberbullied in 2017 and 2018 is similar to the earlier data (Peled, 2019). However, most of the early research has very few participants due to which cyberbullying among higher education students have still not fully developed. According to Y. Peled (2019) who also conducted correlation analyses and “confirmed significant relationships between cyberbullying, mainly through instant messaging and the academic, social, and emotional development of undergraduate students” (Peled, 2019). “Instant messaging (IM) was found to be the most common means of cyberbullying among the students”. Research has indicated that there is a link between high school and college in terms of the category in which students fall either in the victim category or perpetrator category. So, Beran et al., 2012 argue that the students who get victimized in high school are most likely to fall into the category of cyber victims in college life.

Even though cyberbullying extends into higher education institutions, students tend to “hold a less-accepting view of cyberbullying” (Boulton et al., 2012). In the present scenario, with the shift of working nature from face-to-face working place to remote due to the pandemic, the students of higher education institutions are facing more cyberbullying than the previous years (Jain et al., 2020).

## **Research Design and Data Collection Tool**

### **Sampling Design**

The approach for picking a sample from the population is known as the sampling design (Levy, 1999). A purposive sampling technique is being used at the national level in selecting four universities as Primary Sample Units (PSUs) for collecting samples. Four universities namely the University of Delhi, Delhi;

University of Mumbai, Maharashtra; Indira Gandhi National Tribal University, Amarkantak, Madhya Pradesh; and Banasthali University, Rajasthan are being selected as a Primary Sample Unit. All four universities have been selected on the basis of their locational nature in terms of urbanization, social structure, administrative structure, and the ease of technology use inside the campus. The nature of all four universities differs from each other in many terms. The University of Delhi and the University of Mumbai are located at the heart of metropolitan cities in India that include diverse nature of students from across the society. The students in both universities are more accustomed to the use of technology which has a greater possibility of being involved in cyberbullying either as a victim or perpetrator anonymously. Moreover, the University of Delhi is a public central university that has slightly different rules and regulations in terms of tackling the issues of cyberbullying at the campus premises than the publicly funded state university like the University of Mumbai.

The other two universities namely Indira Gandhi National Tribal University, Amarkantak, Madhya Pradesh; and Banasthali University, Rajasthan are located in semi-rural areas in India that have a low propensity in terms of ease of technology use resulting in different patterns of involvement in cyberbullying either as victims or perpetrators. The students in both universities are less diverse in terms of identity since most of the students belong to the particular region in which the universities are geographically located. Among all the selected four universities, Banasthali University, Rajasthan is a women’s university whereas rest three universities are for both boys and girls. The heterogeneous nature of all the selected four universities reflects the diverse nature of sample sites that ensures the presence of maximum

variability within the primary data.

## Participants

Following the choice of four sample locations that represented the variety of universities found throughout the nation, participants were selected from each university through the random sampling selection procedure. The sample size is 1,473 which were collected from the selected sample sites among which 515 are from the University of Delhi, Delhi; 597 samples from the University of Mumbai, Maharashtra; 316 samples from Banasthali University, Rajasthan; and 45 samples from Indira Gandhi National Tribal University, Amarkantak, Madhya Pradesh. The present research follows a quantitative research paradigm. Survey methods were used to analyze gender-specific cyberbullying in the anonymous virtual world. The participants were 1,473 females from four heterogeneous Universities namely the University of Delhi; University of Mumbai, Maharashtra; Indira Gandhi National Tribal University, University of Amarkantak, Madhya Pradesh; and Banasthali University, Rajasthan.

## Study Tools

For the study tools, questionnaires were prepared for a survey of female students studying in Indian Higher Education Institutions. This questionnaire was used to collect data on internet usage, demographics, and participant awareness of cyberbullying as well as their self-reported history of cyberbullying experience as either a victim or a perpetrator. This tool was also intended to understand more about how victims of cyberbullying are affected psychologically. In the present study, the Cyberbullying and Victimization Experiences Questionnaire-Greek

(CVEQ-G) tool is being used to collect data (Antoniadou et al., 2016) with 0.892 reliability.

## Data Collections and Data Analysis

The study is cross-sectional in nature and was designed to document cyberbullying victimization of adolescent girls and women in Indian higher education institutions and to analyze how the nature of anonymity in gender-specific cyberbullying affects the females studying in higher education in India through quantitative approaches. Descriptive analysis has been used for data analysis. Scoring has been done by the responses received for the respective items.

## Findings

The findings of the study from Table-01 on cyberbullying of female students in Indian higher education institutions show that 38.08 per cent of the female victims believe that the perpetrator pretends to be someone else to be treated badly through the internet or phone calls. Among these 3.46 per cent of the respondents believe many times, 21.79 per cent of the respondents believe sometimes whereas 12.49 per cent of the respondents believe 1-2 times. The data projects that a very significant size of perpetrators tries to hide their original identity by taking advantage of anonymous space for cyberbullying. In addition, 38.83 per cent of the female students are those who were mocked or treated/spoken badly through an anonymous message sent by the perpetrator to any third person to cyberbully females. The frequency of these kinds of anonymous messages is such that 12.29 per cent faced it 1-2 times, 19.96 per cent faced it sometimes and 6.04 per cent faced it many times (Table 01).

**Table-1: Percentage Distribution of Victims' Perspective on Cyberbullying and Anonymity**

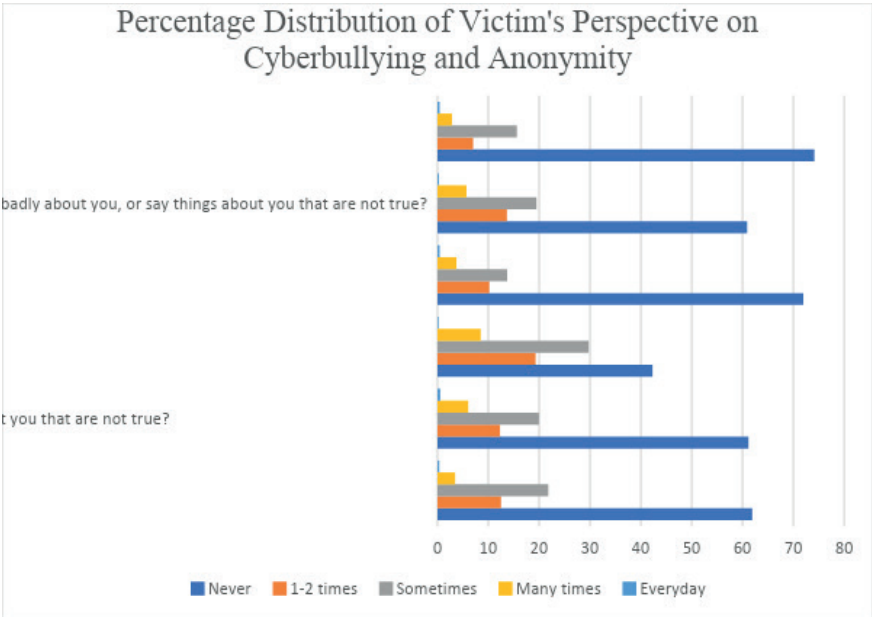
<b>Variables</b>	<b>Never (%)</b>	<b>1-2 times (%)</b>	<b>Sometimes (%)</b>	<b>Many times (%)</b>	<b>Everyday (%)</b>
Has anybody sent you a message (via cell phone or the Internet), pretending to be somebody else, in order to treat you badly?	61.91	12.5	21.79	3.46	0.34
Has anybody sent others a message (via cell phone or the Internet) in order to mock you, speak badly about you, or say things about you that are not true?	61.17	12.3	19.96	6.04	0.54
Has anybody sent you a message (via cell phone or the Internet) in order to mock you, or talk badly to you?	42.3	19.3	29.74	8.49	0.2
Has anybody sent photos or videos of you to others, without your permission, in order to mock you?	71.97	10.2	13.71	3.73	0.41
Has anybody shown your messages to others (via cell phone or the Internet), without your permission, in order to mock you, speak badly about you, or say things about you that are not true?	60.9	13.7	19.48	5.7	0.27
Has anybody sent you a message (via cell phone or the Internet) in order to threaten you?	74.13	7	15.61	2.85	0.41



Along with it, 57.7 per cent of the female students in Indian Higher education also receive anonymous messages through the internet or cell phones with the intention to talk badly or mock them. Among these, 19.28 per cent of them receive messages 1-2 times, 29.74 per cent receive such kinds of messages sometimes, 8.49 per cent receive such kinds of messages many times and 0.2 per cent of the females even receive this kind of message every day; 28.03 per cent of the female students are cyberbullied through the circulation of their photos or videos to others without the victim's consent to mock them. Among them, 10.18, 13.71, and 3.73

per cent faced this kind of cyberbullying 1-2 times, sometimes, and many times respectively; 39.10 per cent of the female students have also experienced a kind of cyberbullying where the victim's messages were shown to others without her/his consent to mock the victims. At the same time, 25.86 per cent of the females were cyberbullied to an extent of life-threatening messages (Table-1). The frequency of this anonymous kind of cyberbullying of female students is basically measured on a scale ranging in ascending order of 1-2 times, sometimes, many times, and every day.

**Graph-1: Percentage Distribution of Victim's Perspective on Cyberbullying and Anonymity**



The findings of the study from Table-2 also suggest that 6.1 per cent of the female students were also involved in cyberbullying with an intention to treat others badly while pretending to be someone else; 9.36 per cent of the respondent cyberbullied others by mocking or by talking badly; 9.84 per cent of the respondent also sent photos or videos of someone to others, without the victim's permission in order to mock

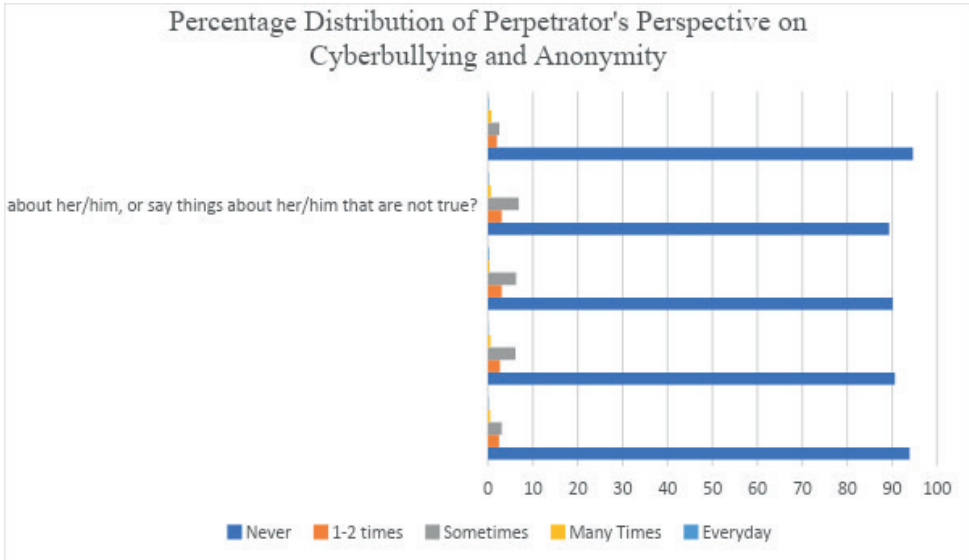
her/him; 10.65 per cent of them "sent or shown messages of someone to others without the victim's permission in order to mock her/him, speak badly about her/him or say things about her/him that are not true"; 5.36 per cent of the female students also responded positively to life-threatening cyberbullying through cell phones or internet messages (Table 02).

**Table-2: Perpetrators' perspectives on Cyberbullying and Anonymity**

<b>Variables</b>	<b>Never (%)</b>	<b>1-2 times (%)</b>	<b>Sometimes (%)</b>	<b>Many Times (%)</b>	<b>Every day (%)</b>
Have you sent a message to someone (via cell phone or the Internet), pretending you're somebody else in order to treat her/him badly?	93.89	2.44	3.055	0.48	0.1
Have you sent a message to someone (via cell phone or the Internet) in order to mock her/him or talk badly to her/him?	90.63	2.65	6.1	0.54	0.07
Have you sent photos or videos of someone to others, without her/his permission, in order to mock her/him?	90.16	3.05	6.25	0.34	0.2
Have you sent or shown messages of someone to others (via cell phone or the Internet), without her/his permission, in order to mock her/him, speak badly about her/him, or say things about her/him that are not true?	89.34	3.05	6.86	0.61	0.13
Have you sent someone a message (via cell phone or the Internet) in order to threaten her/him?	94.63	1.97	2.51	0.75	0.14



**Graph-2: Percentage Distribution of Perpetrator's Perspective on Cyberbullying and Anonymity**



The primary data from Table-03 also suggest that the anonymity of cyberbullying has a psychological impact on the victims in the sense of helplessness, nervousness, tiredness, fear, etc. Various parameters were considered to determine the psychological conditions of the respondent during the past four weeks from the time of the interview. The

data shows that 7.06 per cent of the respondents 'all of the time' have felt tired out for no good reason, 22.94 per cent of the respondent 'most of the time' have felt tired out for no good reason, 29.93 per cent of the respondent 'Some of the time' have felt tired out for no good reason, and 22.06 per cent of the respondent 'little of the time' have felt tired out for no good reason.

**Table-3 Percentage Distribution of Psychological Effect of Anonymity in Cyberbullying**

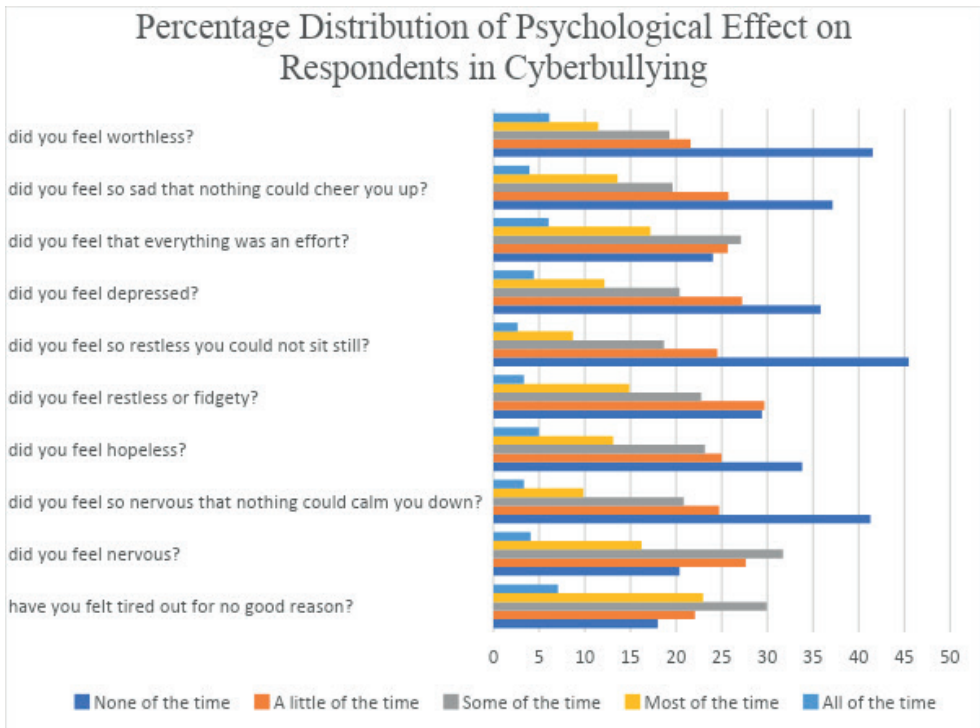
Variables	None of the time (%)	A little of the time (%)	Some of the time (%)	Most of the time (%)	All of the time (%)
In the past 4 weeks, how often have you felt tired out for no good reason?	18	22.06	29.93	22.95	7.06
In the past 4 weeks, how often did you feel nervous?	20.37	27.63	31.7	16.22	4.07
In the past 4 weeks, how often did you feel so nervous that nothing could calm you down?	41.28	24.71	20.84	9.84	3.33

In the past 4 weeks, how often did you feel hopeless?	33.81	24.98	23.15	13.1	4.96
In the past 4 weeks, how often did you feel restless or fidgety?	29.4	29.67	22.74	14.87	3.33
In the past 4 weeks, how often did you feel so restless you could not sit still?	45.49	24.51	18.67	8.69	2.64
In the past 4 weeks, how often did you feel depressed?	35.84	27.22	20.37	12.15	4.41
In the past 4 weeks, how often did you feel that everything was an effort?	24.03	25.66	27.09	17.18	6.04
In the past 4 weeks, how often did you feel so sad that nothing could cheer you up?	37.14	25.73	19.62	13.58	3.94
In the past 4 weeks, how often did you feel worthless?	41.55	21.59	19.28	11.47	6.11

The data from Table-3 also reflect that 4.07 per cent of the respondents 'all of the time' have felt nervous, 16.22 per cent of the respondent 'most of the time' have felt nervous, 31.70 per cent of the respondent 'Some of the time' have felt nervous, and 27.63 per cent of the respondent 'little of the time' have felt nervous. At the same time, 3.33 per cent of the respondents 'all of the time' have felt so nervous that nothing

could calm her down, 9.84 per cent of the respondent 'most of the time' have felt so nervous that nothing could calm them down, 20.84 per cent of the respondent 'Some of the time' have felt so nervous that nothing could calm them down, and 24.71 per cent of the respondent 'little of the time' have felt so nervous that nothing could calm her down (Table-3).

**Graph-3: Percentage Distribution of Psychological Effect on Respondents in Cyberbullying**



The data shows that 4.96 per cent of the respondents ‘all of the time’ have felt hopeless, 13.10 per cent of the respondent ‘most of the time’ have felt hopeless, 23.15 per cent of the respondent ‘Some of the time’ have felt hopeless, and 24.98 per cent of the respondent ‘little of the time’ have felt hopeless. In total, 66.19 per cent of the respondents have felt hopeless in the past four weeks. The data also shows that 4.41 per cent of the respondents ‘all of the time’ have felt depressed, 12.15 per cent of the respondent ‘most of the time’ have felt depressed, 20.37 per cent of the respondent ‘Some of the time’ have felt depressed, and 27.22 per cent of the respondent ‘little of the time’ have felt depressed. In total, 64.15 per cent of the respondents have felt depressed in the past four weeks (Table-3).

**Discussion**

The findings from Table 01 and Table 02 highlight that fewer female respondents are getting involved in anonymous cyberbullying as perpetrators than being the victim of it. This is similar to the finding made by Sourander et al., 2010 in their research that women are more targeted in cyberbullying and victims of it. Although, Sourander et al., 2010 make an explicit comparison with the men and the present study did not make any comparison with the men but is limited to the argument that women are getting more victimized rather than being perpetrators. This also does not conclude that women are not participating in cyberbullying as perpetrators. As data from Table 02 suggest that a significant number of females in Indian higher education institutions get involved in cyberbullying as perpetrators too. Looking from the victim’s perspective the identity of the

perpetrator remains hidden behind the veil of anonymity. Hence, this study on cyberbullying of female students in Indian higher education institutions does not make any distinction regarding the perpetrator's identity or location in this anonymous world.

According to the findings of various research, anonymity was more of a perception among teens than a reality. Mishna et al., (2009) studied opinions and perceptiveness concerning cyberbullying. The anonymity and concealment in cyberspace may allow perpetrators to disregard cyber etiquette, reputation, and social respect (Yuanyuan Chen et.al., 2022). It clearly highlights that the anonymity in cyberbullying of females in higher education institutions has a miserable effect on the psychological level of victims.

The present study also highlights that females studying in higher education are facing extreme vulnerability in terms of psychological harassment due to an anonymous environment, Ybarra et al. (2006) identified that victims of cyberbullying often report feelings of depression, low self-esteem, helplessness, social anxiety, alienation and social isolation. The main motive for the perpetrator behind bullying females using cyber media is to sustain "Unevenness of Power " from a non-digitized patriarchal society where women are socially suppressed in the patriarchal structure. This unevenness of power gives the leverage point to the perpetrator in feeling themselves socially strong or weakening females through cyberbullying Abbasi et.al (2018). Female students also suffer much oppressive treatment through cyberbullying especially because of gender identity or sexual orientation. Although female students in Indian Higher Education institutions often get involved in cyberbullying as a

perpetrator who shows behavioural aggression, because it is easier for the perpetrator to show a more real self in virtual, hidden, and uncontrolled cyberspace Yuanyuan Chen et.al (2022).

## Conclusion

The anonymous nature of cyberbullying provides an illegitimate ground to the perpetrator for gaining unauthorised access to personal information as well as using them for cyberbullying. So, the relational understanding of anonymity and cyberbullying on a larger ground provides a sense of the disturbing nature of the cyber world that makes this virtual place very unsafe for women who are in the phase of determining their career goals. It affects the women psychologically who are studying in higher education institutions in India as it hinders in deciding their future prospects.

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## Ethical Clearance

The entire manuscript is based on the field survey that can be taken upon request; therefore, no ethical review board clearance is required for this research work.

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