

Prevalence and Perspectives of Cyberbullying Victimisation and Its Effect on Mental Health Among Students in Public Higher Education Institutions in the East Coast Region

Nurul Ain Farhana Mohd Fauzi¹, Nur Ainu Farhah Rabae², Nurhazirah Zainul Azlan^{2,3} & Noratikah Othman^{2,3*}

¹Kulliyyah of Nursing, International Islamic University Malaysia, Pahang, Malaysia

²Institute of Planetary Survival for Sustainable Well-being (PLANETIUM), International Islamic University Malaysia, Pahang, Malaysia

³Department of Basic Medical Sciences for Nursing, Kulliyyah of Nursing, International Islamic University Malaysia, Pahang, Malaysia

ABSTRACT

Introduction: Cyberbullying has emerged as a prevalent issue, where perpetrators harm victims through technology, often anonymously. It is also has been linked with significant negative outcomes in psychological aspects such as social anxiety, low self-esteem, depression, affective disorders, sleeping and eating disorders. Thus, this study aims to examine the association between students' socio-demographics, their experience of cyberbullying and its psychological effects among Public Higher Education Institutions (IPTA) students in the East Coast region.

Methods: The cross-sectional study was conducted among 355 IPTA students in East Coast region by using a convenient sampling. The online survey was distributed consist mainly of 3 parts, sociodemographic data, perspective and experiences of being cyberbullied and DASS-21 questionnaires.

Results: 36.6% students have experienced of being cyberbullied, with 19.6% have been cyberbullied almost every day. However, 23.3% reported that the cyberbullying was not harsh at all, 11.4% harsh and 2.0% really harsh. About 24.1% respondents do not have an impact at all, 10.5% have small impact and 2.0% have huge impact on daily life. There was no significant difference between gender and year of study concerning the experience of being cyberbullied among undergraduate IPTA students in the East Coast region ($p\text{-value} > 0.05$). However, age showed a significant association with the experience of being cyberbullied ($p\text{-value} < 0.05$) with majority of students that had experienced of being cyberbullied was in the range 22-23 years old. There was no significant difference in perspectives on cyberbullying between males and females ($p\text{-value} > 0.05$), but age significantly influenced perspectives on cyberbullying ($p\text{-value} < 0.05$).

Conclusion: This study suggest that the emotional impact of cyberbullying varies based on individual circumstances and personal perspectives on cyberbullying. Future research should explore the underlying factors contributing to the higher prevalence of cyberbullying among female students and those aged 22-23.

Keywords: Cyberbullying victimization; Mental health; Student

*Corresponding author

Noratikah Othman
Department of Basic Medical Sciences for
Nursing,
Kulliyyah of Nursing,
International Islamic University Malaysia,
Pahang, Malaysia
E-mail: atikahothman@iium.edu.my

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INTRODUCTION

Technology has increased the world in communication, sharing information and make learning across the countries easier. The technology advances have many positive impacts on society in this era. However, the consequences brought by this technology are inevitable and cyberbullying is one of them. The easy access and engagement to social media made bullying an easier process.

Now, bullying is no longer in a face-to-face setting but has evolved into the cyber world, hence the term, cyberbullying is formed. Literally, cyberbullying can be defined as the act of the perpetrator who repeatedly makes fun of another person online or repeatedly picks on another person through email, text message or harassing someone by posting a humiliated picture of others (1). The anonymity on the Internet makes it easy for perpetrators to find the victims for bullying without much concern. Hence, cyberbullying could lead to sexual harassment, stalking episodes even death threats (2).

In recent years, cyberbullying has become a familiar issue that society has to face head-on. The perpetrator willingly and repeatedly harms the victims using technology and often appears as hurtful social media posts, mean statements during gaming, hate accounts created to embarrass, threaten or abuse the victims through online platform. Since most people have access to electronic devices and use various social media platforms, it is easier for the perpetrator to engage in cyberbullying anonymously and beyond boundaries (1,3). The anonymity on the internet makes it easier for the cyberbullies to bully the victims without much concern (2). In a finding by Cyber Security Malaysia, 27% of the students involved in the study admitted that they have been bullied online, while 13% of the students said they were still being bullied online during the period of research. About 50% of the students know at least one cyberbully victim (4).

The experience of cyberbullying has been linked with significant negative outcomes in psychological aspects such as social anxiety, low self-esteem, depression, affective disorders, sleeping and eating disorders (5).

The objective of this study was to examine the association between student's socio-demographics and being cyberbullied among Public Higher Education Institutions (IPTA) students in East Coast region. In addition, to

examine the association between student's socio-demographics and perspective of cyberbullying among IPTA students in East Coast region. This study also aims to examine the association between cyberbullying victimization and psychological effects among IPTA students in East Coast region.

METHODS

The cross-sectional study was conducted among 355 undergraduate students in one of the public Universities in East Coast region by using a convenient sampling. The inclusion criteria for this study encompassed undergraduate nursing students enrolled during the data collection semester and have the ability to complete the questionnaires in English. Excluded from the study were students on study breaks, Master's and PhD students, as well as international students from the university. The study was ethically approved by the Kulliyyah of Nursing Post Graduate Research Committee (KPNGRC) and International Islamic University Malaysia Research Ethics Committee (IREC), IREC 2021-KON/33.

Data Collection

The self-administered questionnaire utilized in this study comprises three parts. Part A comprises two sections. The first section solicited demographic information such as gender, age, year of study, access to the internet, ownership of a mobile phone, and possession of a social media account. The second section, consisting of closed-ended filter questions, assessed respondents' experiences of cyberbullying. Part B asked for the perspective from the respondents about cyberbullying. Part C utilized the depression, anxiety, stress scale (DASS-21), which comprises 21 items and assesses three subscales: depression, anxiety, and stress. Using Cronbach' alpha the consistency for DDSI-21 suggested high level of reliability; depression scale (0.90); anxiety scale (0.85) and Stress scale (0.87) with total scale of 0.95 (6). The questionnaires were disseminated via WhatsApp and email channels.

Statistical Analysis

IBM Statistical Package Social Science (SPSS) Version 20 was used for data analysis. Descriptive statistics was used to examine variable such as gender and age. On the other hand, Kruskal-Wallis test and Mann-Whitney test were used to examine the association between categorical and numerical variables. Finally, a Chi Square test was

used to know the association between two categorical variables. For this research, p -value <

0.05 was considered as statistically significant result.

RESULT

Table 1: Sociodemographic data of respondents (N=352)

N=352	Variable	Frequency (n)	Percentage (%)
Gender	Male	125	35.2
	Female	230	64.8
Age	20-21	53	14.9
	22-23	193	54.4
	24-25	109	30.7
Mean: 22.86			
SD: 1.102			
Year of study	Year 1	18	5.1
	Year 2	54	15.2
	Year 3	77	21.7
	Year 4	203	57.2
	Year 5	3	0.8

Sociodemographic Data

Table 1 depicts the demographic of 355 respondents, 125 (35.2%) respondents were male, and 230 (64.8%) respondents were female. Approximately, 53 (14.9%) were in the age 20-21 group, 193 (54.4%) were in the age 22-23 group and 109 (30.7%) were in the age 24-25 group. The mean age of all respondents is 22.86 (1.102). In terms of year of study, 18 (5.1%) respondents were from year 1, 54 (15.2%) were from year 2, 77 (21.7%) were from year 3, 203 (57.2%) were from year 4 and only about 3 (0.8%) respondents from year 5.

Experiences Of Students Being Cyberbullied

The finding of this study shows that of all participants, 355 (100%) have their own mobile phone, have internet access and at least one social media. **Table 2** depicts the experience of participants being cyberbullied. Approximately, 127 (36.6%) have experience of being cyberbullied and 228 (63.4%) have not experienced cyberbullying. The finding of this study shows that out of all respondents 129 (36.1%) have experience of being cyberbullied and 223 (63.8%) respondents were denied of being cyberbullied. Approximately, 79 (19.6%) have been cyberbullied almost every day, 19 (5.4%) one or two times in week and 35 (9.9%) less than once a week. However, about 82 (23.3%) reported that the cyberbullying was not harsh at all, 40 (11.4%) harsh and 7 (2.0%) really harsh. About, 85 (24.1%) respondents do not have an impact at all, 37 (10.5%) have small impact and 7 (2.0%) have huge impact on daily life.

The Relationship Between Student's Sociodemographic and Being Cyberbullied Among IPTA Students in East Coast Region

Chi-Square test was used to find the association between socio-demographics and being cyberbullied among IPTA students in East Coast region. **Table 3** depicts the relationship between socio-demographics and being cyberbullied among IPTA students in East Coast region.

Based on **Table 3**, there was no association between gender and year of study with experience of being cyberbullied among IPTA students in East Coast region. The p -value for gender is 0.389 and year of study is 0.149 which is $p > 0.05$. Meanwhile, the p -value for age is 0.014. The p -values are less than 0.05 therefore. Thus, there was an association between age and experience of being cyberbullied among undergraduate students of IPTA students in East Coast region

The Relationship Between Student's Sociodemographic and Perspective of Cyberbullying Among IPTA Students in East Coast Region

Mann-Whitney test and Kruskal Wallis test were used to find the association between socio-demographics data and perspective of cyberbullying among IPTA students in East Coast region.

Table 4 illustrates the total score of the respondents on the perspective of cyberbullying. Based on the results, majority of the respondents

342 (96.4%), shows that they were aware of cyberbullying based on total score of perspective meanwhile only 13 (3.6%) of them categorized below average.

Table 5, The Mann-Whitney U test revealed that there was no significant difference in the

perspectives of cyberbullying between males and females with p value of 0.693. Meanwhile, The Kruskal-Wallis test revealed a statistically significant difference in the perspective of cyberbullying between age and year of study with p value of 0.035 and 0.05 respectively.

Table 2: Depicts the experience of cyberbullying by respondents in a form of percentage (N=352)

Questions	Yes (n, %)	No (n, %)
Have you experience of being cyberbullied?	129 (36.1)	228 (63.8)
How many times you being cyberbullied?		
• Everyday	6 (1.7)	
• Most of the day	79 (19.6)	-
• One or two times a week	19. (5.4)	
• Less than once a week	35 (9.9)	
How harsh or cruel you being cyberbullied?		
• Really harsh	7 (2.0)	
• Harsh	40 (11.4)	
• Not harsh at all	82 (23.3)	-
What impact you would say after being cyberbullied in your life?		
• Huge impact	7 (2.0)	-
• Small impact	37 (10.5)	
• Not impact at all	85 (24.1)	

Table 3: Depicts the relationship between socio-demographics and being cyberbullied among IIUM Kuantan students (N=352)

Variable	Experience of being cyberbullied		p -value
	Yes	No	
Gender			
Male	41	84	0.389
Female	86	144	
Age			
20-21	20	33	0.014
22-23	79	114	
24-25	28	81	

*Chi-square test, p -value < 0.05

Table 4: Total score of respondents on perspective of cyberbullying (N=352)

Variables		Frequency (n)	Percentage (%)
Perspective of cyberbullying	Total score		
Below average	0-30	13	3.6
Above average	31-60	342	96.4

Table 5: Relationship between student's socio-demographics and perspective of cyberbullying (N=352)

Variable	n (%)	Z statistics	p-value
Gender		-0.394	0.693
Male	125 (35.2%)		
Female	230 (64.8%)		

*Mann-Whitney test, $p < 0.05$ as significant level 95% CI

Variable	n (%)	X ² statistics (df)	p-value
Age		11.975 (5)	0.035
20-21	53 (42.8)		
22-23	193 (54.4)		
24-25	109 (30.7)		
Year of study		9.371 (4)	0.05
Year 1	18 (5.1)		
Year 2	54 (15.2)		
Year 3	77 (21.7)		
Year 4	203 (57.2)		
Year 5	5 (0.8)		

*Kruskal-Wallis test, $p < 0.05$ as significant level 95% CI

The Relationship Between Cyberbullying Victimization and Psychological Effects Among IPTA Students in East Coast Region

Mann-Whitney test was used to find the association between cyberbullying victimization and psychological effects among IPTA students in East Coast region.

Table 6 illustrate the Total Dass-21 26.95 (16.751) for 127 respondents.

Table 7 depicts that there were no significant differences between cyberbullying victimization and psychological effects with p value 0.357. The null hypothesis failed to reject.

Table 6: Depicts the Total DASS-21 (n=127)

Variable	Mean (SD)	Minimum	Maximum
Total Dass-21	26.95 (16.751)	0	62

Table 7: Depicts the relationship between cyberbullying victimization and total score DASS-21 (n=127)

Variable	Z statistic	U	p-value
Total score DASS-21	-0.921	13624.5	0.357

*Mann-Whitney test, $p < 0.05$ as significant level 95% CI

DISCUSSION

The finding showed that out of all respondents 127 (36.6%) have experience of being cyberbullied and 228 (63.4%) respondents were denied of being cyberbullied. Approximately, 79 (19.6%) have been cyberbullied almost every day. However, about 82 (23.3%) reported that the cyberbullying was not harsh at all and 85 (24.1%) do not have an impact at all on daily life.

In comparison, the study that was conducted in the UK (7), the prevalence rates of being cyberbullied were lower with 7% reporting that they have been cyberbullied often, 16% only once or twice and 78% never being cyberbullied.

Meanwhile, from the study that was conducted in the US among 1454 respondents, it was reported that about 78% of respondents have at least one incident of being cyberbullied (8). There was no association between gender and experience of being cyberbullied as the p-value was 0.389 which was the $p\text{-value} > 0.05$. The result was similar with the finding of the study conducted in Canada which found no little differences in gender with the cyberbullying victimization (9).

Based on study, there was a significant difference between age and experience of being cyberbullied as $p\text{ value} < 0.05$. to support this result, according to Pew Research Center (2017) (10), it showed that 41% of American adults experienced online

harassment. Meanwhile, according to Raskaukas, the highest prevalence rates of being cyberbullied were probably due to factors such as age, which was the older adolescents were more likely to be involved in cyberbullying than younger adolescents.

In terms of gender, the finding showed that there was no significant difference in the perspectives of cyberbullying between males and females with p value > 0.05 . According to Faucher et al. (11), female and male have their own perspective toward cyberbullying. For example, female students were more likely than males to disagree with cyberbullying with the statements "Cyberbullying is a normal part of the on-line world; it cannot be stopped". On the other hand, there was a significant difference in the perspective of cyberbullying between age with p value of 0.05. Furthermore, age might affect the viewpoint toward cyberbullying. However, there are no studies that can support this statement.

The finding of the study showed that there was no significant relationship between cyberbullying victimization and psychological effects among IPTA students in East Coast region with $p > 0.05$. However, it was contradicted with a study that was conducted among adolescents in Kedah and Perlis, Malaysia, the result shows that there is significant relationship between cyberbullying victimization and psychological effects (12). According to the study, most victim are frequently distracted, have low self-esteem and have tendency to commit suicide due to cyberbullying victimization (12). In addition, depression and anxiety were significantly associated with victimization from cyberbullying (13). On the other hand, most victims report emotional responses such as anger, sadness, embarrassment and frustration with the incident of cyberbullying.

Despite the research that has reported negative emotional, psychological and behavioural impacts associated with cyberbullying victimization, there was also research showing that a large proportion of cyberbullying victims report not being affected by the experience. The study indicates that many cyberbullying victims exhibited attitudes of dismissal towards cyberbullying victimization which included beliefs such as cyberbullies are "stupid pathetic and bored", and that they "don't have anything better to do" (14).

CONCLUSION

From this study it can be conclude that female was more likely to have experienced of being cyberbullied compared to male among IPTA students in East Coast region. In addition, the majority of students that had experienced of being cyberbullied was in the range 22-23 years old. In this study the aim was to assess the association between age and gender with experienced of being cyberbullied among IPTA students in East Coast region. It can be concluded that there was no association between gender with experience of being cyberbullied among undergraduate students of IPTA in East Coast region, but there was an association between age and experience of being cyberbullied among IPTA students in East Coast region. In addition, there was no association in the perspectives of cyberbullying between males and females in IPTA students in East Coast region. However, from the study it can be concluded that there was an association in the between perspective of cyberbullying and age among IPTA students in East Coast region. This study also revealed that there was no association between cyberbullying victimization and psychological effects among IPTA students in East Coast region. Thus, it can be concluded that negative impact and emotional distress caused by cyberbullying depended on the individual circumstances and its own perspective on cyberbullying. The study recommends developing targeted interventions to mitigate cyberbullying among undergraduate students, given its prevalent occurrence as identified in this research. Future investigations should assess the impact of educational initiatives designed to foster digital literacy and responsible online conduct. Moreover, it is essential to establish institutional mechanisms that promptly address cyberbullying incidents and offer psychological support to affected students.

CONFLICT OF INTEREST

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare absence of conflicting interests with the funders.

ETHICAL MATTERS

This study was approved by IIUM Research Ethics Committee (IREC), approval no. IREC2021-KON/UG33.

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AUTHOR CONTRIBUTIONS

NAFMF: drafted the manuscript and contributes to the concept development and design of the article through data collection, analysis and data interpretation for the article.

NAFR: involved in literature support and finalising the manuscript.

NZA: involved in literature support and finalising the manuscript.

NO: revised the manuscript critically with intellectual contents and approved the final version of the manuscript.

REFERENCES

- Balakrishnan V. Cyberbullying among young adults in Malaysia: The roles of gender, age and Internet frequency. *Comput Human Behav.* 2015 May 31;46.
- Chan HC (Oliver), Wong D. Traditional school bullying and cyberbullying in Chinese societies: Prevalence and a review of the whole-school intervention approach. *Aggress Violent Behav.* 2015 May 1;23.
- Sticca F, Perren S. Is Cyberbullying Worse than Traditional Bullying? Examining the Differential Roles of Medium, Publicity, and Anonymity for the Perceived Severity of Bullying. *J Youth Adolesc* [Internet]. 2013;42(5):739-50. Available from: <https://doi.org/10.1007/s10964-012-9867-3>
- H1 2013: Cyber security scene in Malaysia. CyberSecurity Malaysia. [Internet]. [cited 2024 Jul 19]. Available from: https://www.cybersecurity.my/en/knowledge_bank/news/2013/main/detail/2318/index.html#:~:text=H1%202013%3A%20Cyber%20security%20scene%20in%20Malaysia&text=According%20to%20national%20agency%20CyberSecurity,developed%20nation%20status%20by%202020
- Abaido GM. Cyberbullying on social media platforms among university students in the United Arab Emirates. *Int J Adolesc Youth.* 2020;25(1):407-20.
- Lovibond PF, Lovibond SH. The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy.* 1995 Mar 1;33(3):335-43.
- Zuckerman W. 60 Cyberbullying Statistics: 2019/2020 Data, Insights & Predictions. CompareCamp [Internet]. 2020 [cited 2024 Jul 19]. Available from: <https://comparecamp.com/cyberbullying-statistics>.
- Raskauskas J, Gregory J, Harvey S, Rifshana F, Evans I. Bullying among primary school children in New Zealand:
- Wade A, Beran T. Cyberbullying: The new era of bullying, *Can J Sch Psychol.* 2011;26(1):44-61.
- Pew Research Center. Online harassment 2017 [Internet]. Washington, DC: Pew Research Center; 2017 Jul 11 [cited 2024 Jan 30]. Available from: <https://www.pewresearch.org/internet/2017/07/11/online-harassment-2017/>.
- Faucher C, Jackson M, Cassidy W. Cyberbullying among university students: Gendered experiences, impacts, and perspectives. *Educ Res Int.* 2014;2014:1-10.
- Abdul Wahab N, Wan Yahaya WAJ. A preliminary investigation: feasibility of an interactive multimedia application in increasing knowledge and awareness of cyberbullying among adolescents. *J Comput Res Innov.* 2016;1(16):127-38.
- Kowalski RM, Limber SP. Psychological, physical, and academic correlates of cyberbullying and traditional bullying. *J Adolesc Health.* 2013;53(1):13-20.
- Paullet K, Pinchot J. Behind the Screen Where Today's Bully Plays: Perceptions of College Students on Cyberbullying. *J Inf Syst Educ.* 2014;25(1):63-8.