THE EXISTENCE OF CYBERBULLYING RESULTS IN PSYCHOLOGICAL CONSEQUENCES AMONG STUDENTS: A REVIEW

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Abstract: The abstract critically examines the research methodology used in the current literature on cyberbullying, with a specific focus on the period from 2019 to 2023. It includes full-text articles, mixed-methods research designs, and English language studies involving student samples. The primary aim is to summarize psychological findings, identify strengths and limitations in selected studies, and contribute to the advancement of research in this area. The review systematically analyzes methods used in the selected studies and their implications for understanding the psychological impact of cyberbullying. It also discusses the results and findings, explaining how different cyberbullying approaches affect students' mental health. Additionally, the review provides recommendations for future research and emphasizes the need for a multidisciplinary approach to address the complex nature of cyberbullying and its impact on students.

Keywords: Cyberbullying, Mental Health, Psychological Well-Being, Students, Cyber Victim

INTRODUCTION

The National Health and Morbidity Survey (NHMS) 2022 has shown a concerning trend of rising suicide thoughts and attempts among teenagers in Malaysia over the previous five years, which can be attributed to the detrimental effects of cyberbullying (Institute for Public Health, 2023). Students who experience cyberbullying are more likely to experience detrimental psychological effects. This issue gained global attention in 2019 when a sixteen-year-old girl in Malaysia committed suicide after being affected by responses to a survey posted on her Instagram page Jamie in 2019 (Khairi et al., 2022). However, there may still be many Malaysians who underestimate the widespread incidence of cyberbullying in Malaysia alongside its detrimental impacts on individuals and society. United Nations Children's Fund (UNICEF) claims that Malaysia ranks second in Asia and sixth globally when it comes to cyberbullying among youth in 2020 (UNICEF, 2020). Figure 1 below illustrates the psychological effects of cyberbullying, which can be divided into four main areas: psycho-emotional, psycho-behavioral, psycho-mental, and psycho-physical effects. These effects are due to the existence of cyberbullying.
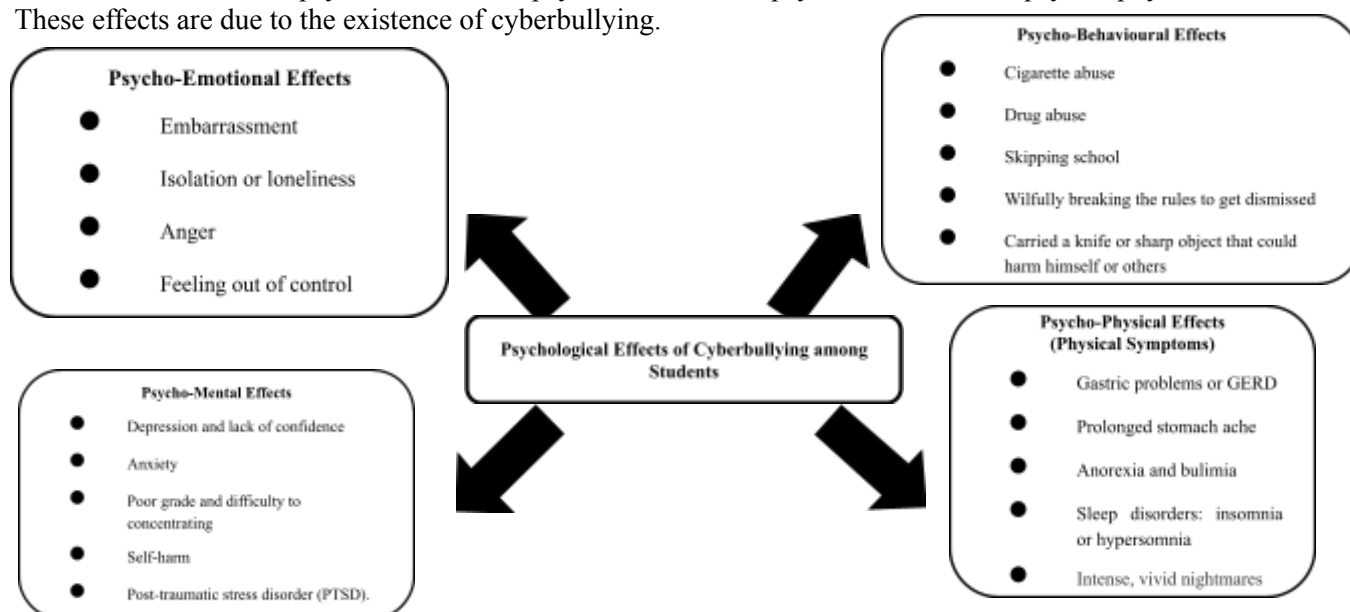
Figure 1: Effects of Cyberbullying
Sources: Alotaibi & Mukred (2022); Bai et al. (2022); Meldrum et al. (2022); Patchin & Hinduja (2022)

Literature Review

We provide an overview of the literature relevant to our work. Recently, there have been numerous studies on cyberbullying in the literature. For instance, Gohal et al. (2023) conducted a study that highlights the growing prevalence of cyberbullying and its detrimental effects on individuals, particularly adolescents. The investigation aimed to assess the widespread occurrence of cyberbullying in the Jazan region of Saudi Arabia, explore associated risk factors, and establish a link between cyberbullying and psychological distress among affected adolescents. The researchers utilized a validated online questionnaire to conduct a cross-sectional study involving 355 students aged 12 to 18. The study sought to examine the incidence of cyberbullying, identify related risk factors, and assess the psychological impact using the Cyberbullying Questionnaire and the Mental Health Inventory-5 (MHI-5). The findings revealed significant psychological impacts among adolescents in the Jazan region due to the high prevalence of cyberbullying. Ensuring the safety of adolescents is an urgent concern that necessitates immediate collaboration between the community and authorities to combat this perilous occurrence.

As per research by Molina et al. (2022), there can be negative effects on mental health from both traditional and cyberbullying. Important findings about student cyberbullying are presented in this particular study. In these kinds of events, student connectedness has recently been identified as a possible protective factor. In order to address this gap, this study looks at the relationships that exist between specific instances of bullying and cyberbullying and three detrimental outcomes: self-esteem, symptoms of depression, as well as suicide attempts. The significance of student connectedness in addressing cyberbullying in schools is further illustrated by these results.

In a study conducted by Marina, Catia, and Margarida (2021), numerous research has been conducted to better understand the impact of bullying and cyberbullying on psychological symptoms and overall well-being. The purpose of the particular study was to investigate the relationships between bullying and cyberbullying, particularly as they relate to age, gender, as well as school grade. This contributes to our comprehension of the mechanisms that underlie cyberbullying. The effect of getting involved with cyberbullying on one's psychological, social, contextual, as well as general well-being was also examined in the course of research. In a cross-sectional study with random assignment, these factors were assessed by comparing an integrated bullying context with individual bullying contexts and non-involvement. The study, which comprised a sample of 6026 adolescents (48% male), was carried out in Portugal in 2014 as a part of the Health Behavior in School-aged Children Portuguese Study. Students in grades six through ten were the focus of this joint project between the World Health Organization (WHO).

The objective of the study conducted by Mohammad et al. (2020) was to examine the association between cyberbullying and psychological loneliness, psychological security, as well as age among university students. The study aimed to evaluate the predictive power pertaining to these three variables on cyberbullying. Understanding these aspects is crucial in addressing cyberbullying. The study included 426 Saudi male and female university students, ages 18 to 36. Loneliness, psychological security, as well as cyberbullying were measured using three different scales. Note that 17.6% of the participants, according to the data analysis, were cyberbullies.

Monteagudo et al. (2020) highlight the lack of scientific research on cyberbullying in universities compared to studies on adolescents. The research seeks to assess the predictive potential of emotional difficulties (specifically depression, anxiety, and stress) as well as university adaptation in relation to cyberbullying incidents involving both victims and aggressors. The techniques used in this study are appropriate for addressing this issue. Participants completed the Depression Anxiety Stress Scale-21, the European Cyberbullying Intervention Project Questionnaire, as well as the Student Adaptation to College Questionnaire. There were 1282 university students in the sample, with 46% being male and ages ranging from 18 to 46.

These outcomes carry substantial impacts for intervention programs, emphasizing the importance of emotional intelligence as well as students' ability to adapt to university.

Alternatively, Peled (2019) examined how cyberbullying affected undergraduate students' academic, social, as well as emotional development. The goal is to raise awareness and provide more information regarding the impact of cyberbullying on a variety of factors that affect college students. Several approaches have been put forth in the literature to address cyberbullying. Note that 638 Israeli undergraduate students participated in the survey. The Revised Cyber Bullying Survey evaluates the frequency of cyberbullying as well as the different media platforms used for it. Meanwhile, the College Adjustment Scales, which evaluate three different aspects of college student's personal development, were utilized to collect the data. Future studies should pay close attention to this specific population. The study's findings suggest that undergraduate students' academic, social, as well as emotional development is impacted by cyberbullying.

In Hira and Humaira's (2019) study, the main objective was to investigate the different ways that cyberbullying is committed and experienced by university students, as well as its methods, strategies, as well as repercussions. A range of techniques have been proposed in the literature. For example, the research involved conducting thorough interviews with fourteen university students who volunteered for the study, consisting of eight males and six females. Among these respondents, ten reported being cyber victims, whereas four identified themselves as victims of cyberbullying incidents. For the conduct of unstructured interviews, a guide was employed. Through thematic analysis, it was discovered that there are varying experiences in cyberspace with regard to gender and role (cyberbully victim and cyber victim) with regard to encountering cyberbullying and cyber victimization. Social repercussions (which include family and peers), lifestyle changes (offline, online, academically), as well as psychological repercussions (emotional, behavioral, and cognitive effects) were the three main themes that came to light. The most prevalent form of cyberbullying was discovered to be on Facebook. The discussions centered around the Pakistani context, dissecting both the results and their implications.

Therefore, the research objective was to critically evaluate the research methodology employed in the current literature on cyberbullying, specifically focusing on the period from 2019 to 2023. This evaluation encompassed full-text articles, mixed-methods research designs, and English language studies involving student samples. The primary goal was to provide a comprehensive summary of psychological findings, identify the strengths and limitations of the selected studies, and contribute to the advancement of research in this area. Additionally, the research aimed to systematically analyze the methods used in the selected studies and their implications for understanding the psychological impact of cyberbullying. Furthermore, the objective included discussing the results and findings to explain how different cyberbullying approaches affected students' mental health. Ultimately, the research sought to offer recommendations for future studies and emphasize the necessity of a multidisciplinary approach to address the intricate nature of cyberbullying and its impact on students.

METHODOLOGY
The methodology employed in this review involved a comprehensive search of academic databases, specifically Scopus and Google Scholar, utilizing the keywords "Cyberbullying," "Mental Health," "Psychological Well-Being," "Students," and "Research Design." The search was limited to English language, full-text original research papers published within the period from 2019 to 2023. The inclusion criteria focused on studies conducted using mixed methods research designs, ensuring a comprehensive and multidimensional approach to understanding the psychological impact of cyberbullying on students. The selected studies were critically evaluated to identify their strengths and limitations, with a particular emphasis on their implications for advancing research in the field of cyberbullying and its effects on mental health and psychological well-being among student populations.

RESULTS
After conducting a comprehensive review of previous investigations, this study concluded that cyberbullying encompasses diverse categories, origins, outcomes, approaches, and assessment techniques. The analysis revealed a multifaceted understanding of the complex nature of cyberbullying and its impact on individuals.

Furthermore, the detailed findings and analysis from prior studies are presented in Table 1, offering a comprehensive insight into the various dimensions of cyberbullying.

Table 1: Literature Review Matrix Table

Study (Year)	Title	Result	Review	
			Strengths	**Limitations**
Gohal et al. (2023)	Prevalence and related risks of cyberbullying and its effects on adolescent	The prevalence is 45% for males and 40% for females, and around 20% spend more than 12 hours online every day. Cyber victimization, the frequency of harassment, and their implications on academic performance. Despite the fact that there were more female participants, men reported being more susceptible to cyberbullying. This finding is inconsistent with earlier research. Concern over men reporting at a lower rate than women. In this study, extended periods of Internet use were found to be a significant risk factor for cyberbullying. In particular, it was probably with frequent Internet users (>12 hours per day). People living in cities are more susceptible than those from suburban areas to become victims of cyberbullying. The research verified that the likelihood of becoming a victim and experiencing cyberbullying repeatedly are risk factors that impact mental health.	Using a cross-sectional study design and a validated online questionnaire, the research provides a comprehensive assessment of the prevalence and risk factors of cyberbullying. The study's emphasis on the possible repercussions of cyberbullying, such as its impact on academic performance and participants' consideration of leaving school, stopping Internet use, or self-harming, highlights the severity of the psychological impact and the urgency of intervention and support. The findings emphasize the need for partnership between the community and the authorities to safeguard teenagers from cyberbullying, providing a call to action for stakeholders and policymakers to address this harmful occurrence.	The studies may restrict the results' ability to be applied to a larger population and raise questions about the generalizability of the results to other cultural or regional contexts. The use of self-reported data through an online questionnaire may introduce response bias and potential inaccuracies in reporting. The relationship's mediators between cyberbullying and psychological status are not thoroughly researched, limiting the depth of understanding in this area.

Study (Year)	Title	Result	Review	
			Strengths	**Limitations**
(Lucas-Molina et al., 2022)	Bullying, Cyberbullying, and Mental Health: The Role of Student Connectedness as a School Protective Factor.	Suicidal behavior and depression showed positive connections with both traditional victimization and cyber victimization. Students who reported higher levels of connectedness and self-esteem were found to have lower suicidal behavior and depression. The degree of networking among students within educational institutions serves as protection for victims of online harassment.	This large sample size enhances the generalizability of the findings to a broader population of adolescents. Mixed Method Research Design: a comprehensive understanding of the relationship between bullying, cyberbullying, as well as mental health outcomes. Multilevel Analysis: This approach allows for the examination of both individual-level and school-level factors in relation to mental health outcomes.	Cross-Sectional Design: The research project used a cross-sectional design, which makes it more difficult to determine which variables result in which outcomes. It would be helpful to conduct longitudinal research to look at the temporal relationships between bullying, cyberbullying, and mental health outcomes. Self-report measures could be impacted by social desirability effects as well as response biases, potentially impacting the accuracy and reliability of the data collected. The study was conducted in one autonomous community in Spain, and the results were in other cultural contexts or regions.
Marina et al. (2021)	Cyberbullying and Bullying: Impact on Psychological Symptoms and Well-Being.	As cyber victims, cyber bullies, or victims of cyberbullying themselves, nearly half of the individuals (48%) participate in bullying activities. Females were often the targets of cyberbullying, with males representing the majority of both cyberbullies and their victims.	The study included a large sample with a total of 6,026 participants. This enhances the generalizability of the results and increases the statistical power of the study. By considering multiple variables, the study provides a more comprehensive understanding of the impact of cyberbullying on individuals.	There are limitations in establishing causal relationships between variables because the research adopted a cross-sectional design. Self-report measures were used in the investigation, and these can be prone to social desirability effects and response bias. This could potentially impact the accuracy and reliability of the data collected. The limited scope of bullying: This narrow focus may limit the generalizability of the results to other forms of bullying.
Mohammad et al. (2020)	Psychological Security, Psychological Loneliness, and Age as the Predictors of Cyberbullying Among University Students.	These findings offer a deeper understanding of the psychological factors involved in cyberbullying. This contribution holds great value as it delves into the motives behind cyberbullying and its negative impact on individuals.	The study utilized validated scales and established good reliability and validity indices for measuring cyberbullying and related variables.	The research's reliance on a sample of Saudi students from two Riyadh universities may have limited the findings' applicability to other demographics or cultural contexts.

Study (Year)	Title	Result	Review	
			Strengths	**Limitations**
Monteagudo et al. (2020)	Cyberbullying in the University Setting: Relationship with Emotional Problems and Adaptation to the University.	The findings imply that individuals with pronounced levels of depression, as well as stress, have an increased chance of becoming victims of cyberbullying. Findings from this research hold significant importance for intervention programs.	The university setting provides a holistic perspective on the factors that may contribute to cyberbullying victimization or aggression. The study employs validated measures, such as the Student Adaptation to College Questionnaire (SACQ).	Due to the cross-sectional design of the investigation, it is more difficult to determine the cause of any given variable. Longitudinal studies would be helpful in investigating the temporal dynamics of cyberbullying in the university environment. Self-reporting measures are utilized in the research, which means they could contain biases as well as inaccuracies. The results have limited generalizability to different populations or circumstances.
Peled (2019)	Cyberbullying and its influence on academic, social, and emotional development of undergraduate students.	According to the data, 57% of students report having been the victim of cyberbullying via various media no less than once or twice. Instant Messaging (IM) was identified as the predominant method of cyberbullying among students. Especially based on validated evidence, it is undoubtedly confirmed that cyberbullying exists.	The study also examined several electronic media platforms, which provided a more comprehensive picture of the media used for cyberbullying.	According to the article, a weakness of the study is that it focused exclusively on students at Israeli universities. This limits the generalizability of the results to other populations or educational settings. Self-report measures, which are prone to bias and inaccuracy, have been employed in this investigation.
Hira and Humaira (2019)	Exploring Modes, Strategies, and Psychosocial Consequences of Cyberbullying Perpetration and Victimization Among University Students.	The experience of being attacked online can lead to greater internalizing difficulties in female victims, but peer support acts as a shield against such problems. It is considered unacceptable in society for female cyber victims to feel fear and shame as a result of disclosing their online friendships with men. The responsibility of maintaining the honor and respect of their family triggers in them a deep fear of honor killings.	Using participants' personal experiences and perspectives. Thematic Analysis: This approach helped identify recurring themes and patterns in the data, providing rich insights into the phenomenon of cyberbullying. Volunteer participants who were open to discussing their individual experiences pertaining to cyberbullying perpetration, victimization, or both to contribute, potentially enhancing the quality and richness of the data.	The sample was restricted to university students, which may limit the generalizability of the findings to other populations. It would be beneficial to include participants from diverse age groups and backgrounds to obtain a more comprehensive understanding of cyberbullying. Self-reported data, which may involve biases as well as inaccuracies, was utilized in the investigation. This particular research did not mention the inclusion of a control group.

Study (Year)	Title	Result	Review	
			Strengths	**Limitations**
				Limited time frame: The study focused on the past three years, which may not capture the most current trends and developments in cyberbullying.

DISCUSSION

The literature on cyberbullying and its impact on mental health among adolescents has been significantly advanced by several recent studies. Gohal et al. (2023) and Molina et al. (2022) have made substantial contributions to this area of research. Gohal et al. (2023) utilized a cross-sectional study design and a validated online questionnaire to comprehensively assess the prevalence and risk factors of cyberbullying, highlighting the severity of its psychological impact and the need for intervention and support. However, the study's limitations include potential biases from self-reported data and the limited generalizability of results to other cultural or regional contexts. On the other hand, Molina et al. (2022) employed a mixed-method research design and a large sample size to provide a comprehensive understanding of the relationship between bullying, cyberbullying, and mental health outcomes. The study's limitations include the use of a cross-sectional design and potential impact of self-report measures by social desirability effects and response biases. Both studies emphasize the need for further research to address limitations and enhance understanding in this area. They both highlight the psychological impact of cyberbullying and the protective factors such as connectedness and self-esteem. The studies also call for action from stakeholders and policymakers to address cyberbullying and enhance generalizability through large sample sizes. However, future research should consider longitudinal designs and diverse cultural contexts to further advance the understanding of cyberbullying and its implications for mental health.

The studies by Marina et al. (2021), Mohammad et al. (2020), and Monteagudo et al. (2020) have provided valuable insights into the prevalence and impact of cyberbullying. Marina et al. (2021) found that nearly half of the individuals engaged in cyberbullying activities, with females being frequent targets. The study's strength lies in its large sample size and consideration of multiple variables, offering a comprehensive understanding of cyberbullying's impact. However, the use of a cross-sectional design and reliance on self-report measures limit the establishment of causal relationships and generalizability. Mohammad et al. (2020) demonstrated good reliability and validity in measuring cyberbullying but was limited by its focus on a specific demographic, potentially impacting the applicability of its findings. Monteagudo et al. (2020) highlighted the association between depression, stress, and cyberbullying victimization, utilizing validated measures but facing limitations in determining causality and generalizability. The studies share similarities in using self-report measures and facing limitations of cross-sectional designs in establishing causal relationships. These studies have contributed to understanding the prevalence and impact of cyberbullying and have utilized validated measures. However, future research should consider longitudinal designs and diverse cultural contexts to enhance generalizability and deepen the understanding of this issue.

Furthermore, the studies by Peled (2019) and Hira and Humaira (2019) have also provided valuable insights into the prevalence and impact of cyberbullying. Peled's study, which focused on Israeli university students, revealed that 57% of participants reported being victims of cyberbullying, with Instant Messaging (IM) identified as the predominant method. The study's strength lies in its comprehensive examination of various electronic media platforms and the use of thematic analysis to identify recurring themes and patterns in the data. However, the study's reliance on self-report measures may introduce bias and inaccuracy, and its exclusive focus on Israeli university students may limit the generalizability of the results. On the other hand, Hira and Humaira's study highlighted the internalizing difficulties faced by female victims of online attacks and the protective role of peer support. The study's limitation includes its restricted sample of university students and the use of self-reported data, which may involve biases and inaccuracies. Both studies share the need for more diverse participant samples and the use of more objective measures to enhance generalizability and deepen the understanding of cyberbullying. Future research should address these limitations to provide a more comprehensive understanding of this important issue.

CONCLUSION

In summary, this review highlights the importance of addressing cyberbullying in the broader mental health context. It also emphasizes the need for concerted efforts to mitigate the negative effects of cyberbullying on students' well-being. Furthermore, an examination of the repercussions of cyberbullying on students' psychological well-being underscores the urgent need for comprehensive programs and support networks to address the complex dynamics of cyberbullying and its detrimental effects on college students. Through a thorough analysis of research methods and findings over the past five years, this review contributes to the advancement of knowledge in this field. This area of study illuminates the mental impact of cyberbullying on students (Yusop & Al-Shami, 2021). Looking ahead, it is crucial for future studies to adopt a multidisciplinary approach and employ a mixed methods study design to fully comprehend the mental consequences of cyberbullying.

Informed Consent Statement
None.

Conflict of Interest
The researcher declares no conflict of interest.

Ethics Statement
None.

Author Contributions
The majority of the research, including the variables' base concept, research methodology, data collection, as well as interpretation, is attributed to Noorhafeza Herliani Adey. The primary research supervisor for this study, Sharon Kwan Sam Mee, gives the authors direction on how to move forward with their research. The article was also improved with ideas and comments from Carmella E. Ading.

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Data Availability Statement
The first author can provide the data developed and/or analyzed during the current study upon reasonable request.

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