

**Article Review #1: Cyberbullying on Social Media: Definitions, Prevalence, and Impact
Challenges**

Student Name: Tenny Boone

School of Cybersecurity, Old Dominion University

CYSE 201S: Cybersecurity and the Social Sciences

Instructor Name: Diwakar Yalpi

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Introduction/BLUF

Researchers by the name of Geraldine Ray, Christopher McDermott, and Mathew Nicho conducted a systematic literature review to determine how cyberbullying is defined, measured, and understood throughout the existing research. Using the PRISMA methodology, the researchers read through 71 studies published ranging from 2007 to 2022 to evaluate definitions, prevalence rates, personality traits, and mental health impacts. The article finds that cyberbullying is a widespread and serious public health issue, however, inconsistent definitions and measurement methods limit how clear the research is. The researchers emphasize the serious need for a standardized framework and more research focused on adult populations in this category.

Relation/Connection to Social Science Principles

Ray et al. (2024) strongly reflect the seven scientific principles outlined in the course powerpoint. First, the principle of empiricism is evident because the researchers rely on the analysis of 71 studies to deeply understand cyberbullying and its impact. Their conclusions are based on observable data and documented research rather than their or the public's opinion. Second, the study demonstrates objectivity by applying clear inclusion and exclusion criteria using the PRISMA framework. The researchers avoid personal bias and instead evaluate the literature using reliable, structured methods. Third, the article reflects skepticism, as the researchers question inconsistencies in cyberbullying definitions and measurement tools. Rather than accepting previous findings at face value, they critically analyze weaknesses and call for improved standards when it comes to research. Fourth, the principle of parsimony is demonstrated in the researchers efforts to propose a standardized definition of cyberbullying.

They do this by identifying core elements such as intent, harm, repetition, and power imbalance. They aim to add clarity and simplify a concept that has not been consistently defined.

Fifth, determinism is shown in the discussion of personality traits and behavioral predictors. The article explores how certain factors such as Dark Tetrad traits, empathy levels, and anonymity, influence or shape cyberbullying behavior. This goes to show that behavior is influenced by identifiable causes rather than random factors or events. Sixth, ethical neutrality is reflected in the way the researchers analyze cyberbullying without criticism. Instead of labeling individuals as simply bad people, they instead examine the many contributing factors, measurement issues, and prevention strategies from a research perspective, not a moral perspective. Finally, relativism is shown in the article's recognition that cyberbullying definitions and experiences vary across cultures, age groups, and social contexts. The researchers acknowledge that understanding cyberbullying requires examining social environments and digital platforms rather than applying one interpretation. Overall, the article applies all seven scientific principles within a social science framework, demonstrating that cybersecurity issues such as cyberbullying can be studied scientifically and systematically.

Research Question /Hypothesis/ Independent Variable/Dependent Variable

The five research questions addressed in the article include: How is cyberbullying defined in the literature? What factors contribute to cyberbullying, and how can they be measured? What is the impact of personality traits on the likelihood of engaging in or being victimized by cyberbullying? How do direct involvement and indirect experiences influence the prevalence of cyberbullying? How does cyberbullying affect individuals, and what measures can be taken to mitigate its effects? When it comes to the hypothesis the researchers do not have an explicit hypothesis because this is a systematic review rather than an experimental study.

However, they indirectly propose that inconsistent definitions contribute to inconsistent findings, personality traits, especially dark personality traits, increase the likelihood of cyberbullying involvement, and cyberbullying is associated with negative mental health outcomes.

Throughout all of the studies, the most common independent variables are personality traits, social media use frequency, anonymity, gender, age group, and online participation type. The most common dependent variables are cyberbullying perpetration, cyberbullying victimization, mental health outcomes like depression, anxiety, psychological distress, suicidal ideation, and someones wellbeing and satisfaction within their life.

Types of Research Methods Used

The article uses a systematic literature review methodology guided by the PRISMA framework. The researchers searched databases such as Scopus, Google Scholar, and Science nDirect and applied inclusion and exclusion criteria. The review includes both quantitative and qualitative studies, making it a mixed review approach. The reviewed studies included surveys, empirical studies, case studies, theoretical analyses, meta-analyses, interviews, and most studies relied on self-report survey data, which the researchers identify as a limitation.

Types of Data Analysis Used

The researchers performed descriptive statistical analysis of the 71 selected studies. They examined things like the publication year distribution, sample sizes, age group representation, geographic distribution, and utilized research methods. They also conducted categorical comparisons, including chi-square tests, to evaluate relationships between study types and age groups. This review integrates qualitative themes such as definitions and core elements such as intent, harm, repetition, power imbalance, personality traits, and intervention strategies. The analysis highlights inconsistencies and calls for improved reliability in cyberbullying research.

Connections to other Course Concepts

The article connects to multiple concepts discussed throughout the course. Especially human factors, psychological theories of offending and victimization, and research design in cybersecurity. Module four emphasized that cybersecurity incidents are often rooted in human factors meaning that behavior, perception, and psychological limitations influence risk. The article reinforces these statements by showing how anonymity, moral disengagement, and personality traits contribute to cyberbullying. The meaning of the phrase created by Alexandra Michel, Psyber Security, is shown in the article's argument that technology alone cannot prevent cyberbullying without understanding psychological drivers. Module five's discussion of the Dark Triad personality traits aligns heavily with the article's findings that these traits are associated with higher rates of people who chose to cyberbully. Additionally, the article connects to Module five's focus on victim psychology because victims may underestimate online harm or overestimate digital safety. Overall, the article reinforces the course's themes that cybersecurity is not only a technical issue but also a psychological and social science issue rooted in human behavior and decision-making.

Connections to the Concerns or contributions of Marginalized Groups

This article acknowledges that adolescents and females often report higher victimization rates. It also mentions how individuals a part of the LGBTQ+ community and minority groups may be more vulnerable due to stigma and social exclusions or standards. Anonymity online can make discrimination and harassment toward certain overlooked groups worse. The article also highlights that adults are very underrepresented when it comes to this kind of research which limits understanding of workplace harassment. Addressing cyberbullying helps protect certain communities from psychological harm and being excluded. Better prevention strategies and

improved reporting systems can help create safer digital environments for populations that are most vulnerable.

Overall societal contributions of the study/Conclusion

In conclusion, Ray et al. (2024) provide a comprehensive synthesis of cyberbullying research and identify major inconsistencies in definitions and measurement methods. Their work contributes to society by emphasizing the need for a standardized definition, better research tools, and more inclusive studies across age groups. The article allows for readers to have an understanding of how personality traits, anonymity, and social media platforms influence cyberbullying behavior.

By highlighting the mental health consequences and research gaps, the study supports the development of prevention programs, policy improvements, and educational interventions. Overall, this article significantly contributes to both cybersecurity research and social sciences by examining how digital environments can shape harmful behavior and by providing evidence-founded solutions to try and reduce cyberbullying.

Reference

Ray, G., McDermott, C. D., & Nicho, M. (2024). *Cyberbullying on social media: Definitions, prevalence, and impact challenges*. *Journal of Cybersecurity*, 10(1), tyae026.
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