

## Cyber Empathy as a Digital Shield Against Cyberbullying: A Systematic Literature Review

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**Abstract.**

This study systematically reviews the relationship between empathy both cognitive and affective and cyberbullying in publications from 2020 to 2024. A *Systematic Literature Review* (SLR) was conducted following PRISMA guidelines. Searches in Google Scholar and Scopus using the keyword “*cyber empathy*” yielded 271 articles; eight empirical studies met the inclusion criteria of topic relevance, scholarly type, and publication year. The synthesis shows that empathy consistently functions as a protective factor, reducing involvement in cyberbullying as either perpetrator or victim. Cognitive empathy demonstrates a stronger preventive influence than affective empathy, underscoring the importance of perspective-taking in limiting online aggression. Additional variables such as moral disengagement, family support, and self-regulation emerge as mediators or moderators, enriching the theoretical understanding of empathy in digital contexts. The novelty of this review lies in its cross-cultural scope, covering studies from Germany, Indonesia, the Philippines, South Korea, Costa Rica, Iran, and Turkey, which are rarely examined in recent reviews. These findings provide an empirical foundation for empathy-based interventions, including cognitive perspective-taking training and family engagement, while informing digital literacy policies and school character education. Strengthening digital empathy is therefore a key strategy to prevent cyberbullying across diverse cultures.

**Keywords:** Cyber Empathy, Cognitive Empathy, Affective Empathy, Cyberbullying

**Abstrak.**

Penelitian ini meninjau secara sistematis hubungan antara empati baik kognitif maupun afektif dengan cyberbullying pada publikasi tahun 2020 hingga 2024. Metode yang digunakan adalah *Systematic Literature Review* (SLR) dengan pedoman PRISMA. Pencarian melalui *Google Scholar* dan *Scopus* menggunakan kata kunci “*cyber empathy*” menghasilkan 271 artikel delapan studi empiris memenuhi kriteria inklusi berdasarkan relevansi topik, jenis publikasi ilmiah, dan tahun terbit. Hasil sintesis menunjukkan bahwa empati secara konsisten berperan sebagai faktor protektif yang menurunkan keterlibatan individu dalam *cyberbullying*, baik sebagai pelaku maupun korban. Empati kognitif memiliki pengaruh pencegahan lebih kuat dibanding empati afektif, menegaskan pentingnya kemampuan mengambil perspektif untuk mengurangi agresi daring. Variabel seperti moral disengagement, dukungan keluarga, dan regulasi diri muncul sebagai mediator atau moderator, memperkaya pemahaman teoretis tentang mekanisme empati di konteks digital. Kebaruan kajian ini terletak pada fokus lintas budaya, meliputi studi dari Jerman, Indonesia, Filipina, Korea Selatan, Kosta Rika, Iran, dan Turki yang jarang dikaji dalam tinjauan terbaru. Temuan ini memberi dasar empiris bagi intervensi berbasis empati dan kebijakan literasi digital.

**Kata kunci:** *Cyber Empathy*, Empati Kognitif, Empati Afektif, *Cyberbullying*

## INTRODUCTION

The increasing intensity of digital interaction through social media has exerted a profound influence on adolescents' social and psychological development. On the one hand, social media facilitates communication, information exchange, and social connection. On the other hand, it also enables negative behaviors such as cyberbullying deliberate, aggressive, and repeated acts carried out through electronic media against targeted individuals (Irmayanti., 2024). Cyberbullying can provoke emotional distress, anxiety, depression, and a decline in victims' self-esteem (Mujidin., 2023).

One promising preventive approach is the cultivation of digital empathy, which comprises the cognitive ability to understand others' emotions and the affective ability to share those emotions. Studies in Indonesia indicate a negative correlation between higher levels of empathy and the tendency to engage in cyberbullying. For example, Wilantika., (2022) reported a significant negative association between empathy and cyberbullying among students at SMA Negeri 3 Mataram.

The protective role of empathy is further supported by Irmayanti., (2024) who examined the combined effects of empathy, self-control, and social control (parental and peer influence) on cyber-violence among students. Her findings showed that individuals with lower empathy were significantly more likely to engage in harmful online behavior.

In a broader social context, Babys., (2023) investigated the relationship between digital empathy and bystander behavior in cyberbullying incidents among adolescents in Kupang. The study found a positive correlation between digital empathy and the likelihood of acting as a defender of victims, although the strength of this association varied across bystander subtypes (*passive outsider, reinforcer, defender*).

Despite these empirical findings, important research gaps remain. First, many local studies have not clearly distinguished the cognitive and affective dimensions of empathy in relation to cyberbullying. Second, mediating and moderating variables such as self-control, social control, parental involvement, local culture, and age are rarely addressed comprehensively. Third, empirical results are not entirely consistent: some studies indicate that high empathy does not necessarily guarantee low involvement in cyberbullying, depending on contextual mediators and moderators. For instance, Bella & Pratama., (2021) found no statistically significant relationship between empathy and cyberbullying among adolescent social-network users in Sumatra.

Beyond its academic relevance, the issue has pressing practical implications. Internet and social-media use in Indonesia continues to rise sharply. Yustiningsih., (2024) notes that rapid

internet penetration has substantially increased the potential for cyberbullying. Consequently, empathy-based interventions, social-emotional learning programs, character education in schools, and policies promoting digital guidance are essential preventive strategies.

This review seeks to address several key questions based on literature published between 2020 and 2024 to what extent are cognitive and affective empathy negatively associated with cyberbullying. Which mediating or moderating variables influence this relationship. Which dimension of empathy cognitive or affective plays the more dominant role. Which demographic, sociocultural, and digital-platform contexts are most frequently examined and found to be significant.

The contribution of this study is twofold. Theoretically, it clarifies the conceptual framework of cyber empathy by mapping empirical evidence and identifying unresolved research gaps. Practically, the findings provide guidance for educators, schools, policymakers, and digital communities in designing interventions that strengthen digital empathy, enhance self-regulation, and foster social support to prevent cyberbullying among adolescents.

## **RESEARCH METHOD**

This study employed *A Systematic Literature Review* (SLR) guided by the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA) framework to ensure methodological rigor and transparency. The literature search was conducted on *Google Scholar* and *Scopus* in September 2025 using the keyword “*Cyber Empathy*,” limited to peer-reviewed articles published between January 2020 and December 2024. The inclusion criteria covered empirical studies with quantitative or mixed-methods designs that directly measured digital empathy and cyberbullying using validated instruments, with full-text availability in English or Indonesian. Studies such as conference proceedings, conceptual papers, book chapters, and publications outside the designated period were excluded.

The screening process followed PRISMA’s four stages, resulting in the selection of 8 studies that fulfilled all criteria from an initial 271 records. Data from each study were extracted systematically, covering author, year, country, design, participants, measurement tools, and key findings. Given the heterogeneity of methods and instruments, a descriptive synthesis and narrative analysis were employed to identify patterns across studies, focusing on the relationship between cognitive and affective dimensions of digital empathy and cyberbullying, as well as the presence of mediating or moderating factors.

## RESULTS AND DISCUSSION

### Results

#### Article Identification and Screening

The database search initially retrieved 271 records. After title and abstract screening, 60 full-text articles were assessed for eligibility. Ultimately, 8 empirical studies satisfied all inclusion criteria and were included in the final analysis.

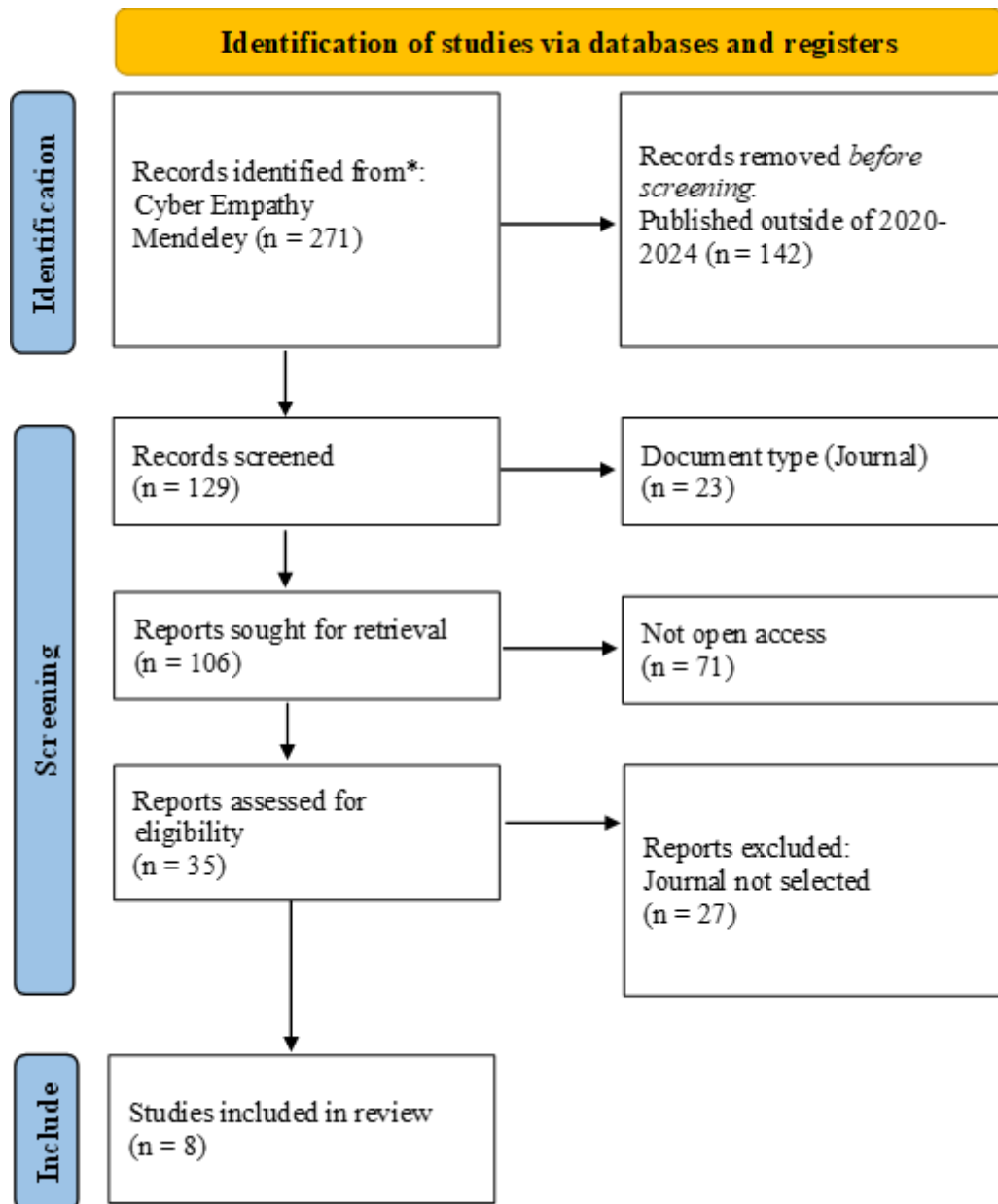


Figure 1. PRISMA Flow Diagram of the Screening and Selection Process

#### Characteristics of Included Studies

The eight selected studies originated from seven countries Germany, Indonesia, the Philippines, South Korea, Costa Rica, Iran, and Turkey with a combined total of approximately 3,000 participants. All employed quantitative designs, either cross-sectional surveys or quasi-

experimental methods, and used validated instruments to measure cognitive and/or affective empathy.

**Table 1.** Characteristics and Main Findings of Included Studie

No	Title	Author, Year	Sample	Findings
1	Cyber-bullying among university students: Concurrent relations to belief in a just world and to empathy	Donat, M., Willisich, A., & Wolgast, A., (2023)	420 university students in Germany (mean age early 20s; quantitative cross-sectional survey)	Involvement in cyberbullying was negatively associated with empathy and positively associated with an egoistic belief in a just world (BJW). High empathy lowered the likelihood of perpetration, whereas self-focused BJW increased the risk of becoming a perpetrator. The findings underscore the importance of empathy-enhancement programs to prevent cyberbullying among university students.
2	Investigations of cyber bullying and traditional bullying in adolescents on the roles of cognitive empathy, affective empathy, and age	Utomo., (2022)	350 junior and senior high school students in Indonesia (ages 13–18; quantitative survey)	Cognitive empathy showed a significant negative relationship with perpetration in both cyberbullying and traditional bullying, whereas affective empathy demonstrated a weaker negative association. Older age slightly reduced the likelihood of perpetration. The study highlights the need to strengthen cognitive empathy as a key prevention strategy for adolescent bullying.
3	Empathy, cyberbullying, and cybervictimization among Filipino adolescents	Shannen T., Kim S. J., & Lee J., (2021)	498 junior and senior high school students in the Philippines	Both cognitive and affective empathy reduced the probability of becoming either a perpetrator or a victim of cyberbullying. Multivariate analysis confirmed empathy as a significant protective factor, while gender differences influenced victimization levels.
4	Addiction to new technologies and cyberbullying in the costa rican context	Lozano-Blasco R., Quilez-Robres A., & Casanovas-López R., (2022)	724 secondary-school adolescents in Costa Rica	Dependence on digital technology positively predicted involvement as both perpetrator and victim of cyberbullying. Family support and self-regulation acted as protective variables that lowered the risk of aggressive online behavior.
5	Effects of adolescents' gender, moral disengagement and empathy on the types of bystanders in the possible occurrence of cyberbullying	Hong Y., (2023)	412 adolescents in South Korea	Moral disengagement increased the likelihood of passive bystander behavior, whereas high empathy promoted defender roles. Moderation analysis showed gender differences: girls were more likely than boys to act as defenders.

No	Title	Author, Year	Sample	Findings
6	Analysis of bullying behavior from the perspective of personality theory and its implications for guidance and counseling	Wiantina N A., (2021)	Qualitative literature- and case-based study in Indonesian schools	Integrated personality theories (psychoanalytic, trait, humanistic) to explain the motivation behind bullying behavior. Recommended counseling approaches grounded in character understanding and the social environment to prevent bullying, including its cyber forms.
7	Comparison of effectiveness of empathy training and social perspective-taking training on emotional intelligence of adolescents with cyber bullying	Safari A., Amini N., & Jafarinia G., (2021)	60 Iranian adolescents with a history of cyberbullying (quasi-experimental pre-post design)	Both training programs enhanced emotional intelligence and reduced cyber-aggression. Empathy training produced greater improvements in emotion regulation and a larger decrease in cyberbullying frequency compared with social perspective-taking training.
8	Akran zorbalığı ve mağduriyeti, siber zorbalık, ahlaki uzaklaşma ve empatik ilgi arasındaki ilişkilerin incelenmesi	Kocatürk M., & Türk Kurtça T., (2021)	452 secondary-school students in Turkey	A strong positive association was found between moral disengagement and cyberbullying perpetration. Empathic concern significantly reduced the likelihood of becoming either a perpetrator or a victim, reinforcing empathy's role as a cross-cultural protective factor.

## Descriptive Statistics

Across the included studies, the mean cognitive empathy scores ranged from 3.2 to 4.5 on a 5-point scale, while affective empathy scores ranged from 3.0 to 4.2. Reported mean levels of cyberbullying behavior fell between 1.8 and 2.9 on comparable scales. Correlations between cognitive empathy and cyberbullying were consistently negative, with coefficients ranging from  $r = -0.25$  to  $-0.41$ , whereas affective empathy demonstrated a weaker negative association ( $r = -0.18$  to  $-0.32$ ). A consolidated summary of these descriptive and correlational statistics is provided.

**Table 2.** Summary of Cross-Study Descriptive and Correlational Findings

No	Variable	Mean Range	Correlation with Cyberbullying ®	Notes
1	Cognitive Empathy	3.2 – 4.5	– 0.25 to – 0.41	Moderate, consistent negative relationship across studies.
2	Affective Empathy	3.0 – 4.2	– 0.18 to – 0.32	Negative association weaker than cognitive empathy.
3	Cyberbullying	1.8 – 2.9	–	Higher prevalence in early adolescence.

## **Synthesis and Critical Analysis**

Across The cross-cultural evidence confirms that empathy particularly cognitive empathy functions as a protective factor against involvement in cyberbullying, whether as perpetrator or victim. Every study reported a significant negative relationship between empathy and online aggression. Several mediating and moderating variables further clarified this relationship, including moral disengagement, family support, and self-regulation. For example, Hong., (2023) demonstrated that moral disengagement increased the likelihood of passive bystander behavior, while higher empathy promoted defender roles. Lozano-Blasco et al., (2022) highlighted the protective roles of family support and self-regulation in counteracting technology dependence as a risk factor.

These findings align with the General Aggression Model, which positions empathy as a personal factor that suppresses aggressive impulses through cognitive and affective mechanisms. Taken together, the results underscore the practical importance of digital empathy training especially perspective-taking interventions along with active family involvement as effective strategies for preventing cyberbullying in schools and online communities.

## **Hypothesis Testing**

The systematic synthesis provides robust support for each research hypothesis. Negative relationship between digital empathy and cyberbullying: confirmed across all studies. Influence of mediating and moderating variables: confirmed, with family support, self-regulation, and moral disengagement identified as significant factors. Stronger role of cognitive empathy compared with affective empathy: confirmed by the consistently higher negative correlations observed.

## **Discussion**

This study systematically reviewed the relationship between both cognitive and affective empathy and cyberbullying behavior in articles published from 2020 to 2024. From an initial pool of 271 records, eight studies met the inclusion criteria and were analyzed in depth. Overall, the findings from these eight studies reveal a consistent pattern: empathy functions as a protective factor that reduces individuals' involvement in cyberbullying, whether as perpetrators or as victims. These results support the initial hypothesis that higher levels of empathy are associated with a lower likelihood of aggressive behavior in digital environments.

Theoretically, these findings align with the General Aggression Model Anderson & Bushman., (2002) which explains that personal factors, including empathy, can suppress aggressive impulses through cognitive and affective processes. Donat et al., (2023) for example, reported a strong negative association between empathy and cyberbullying among German university students. Similar evidence emerged in Asian contexts: studies by Shannen

et al., (2021) in the Philippines and Utomo., (2022) in Indonesia confirmed that both cognitive and affective empathy reduce involvement in cyberbullying, either as perpetrator or victim. This cross-cultural consistency suggests that empathy operates as a universal protective factor.

The analysis further highlights the importance of empathy dimensions. Several studies emphasized that cognitive empathy the ability to understand another person's perspective has a stronger inhibitory effect on cyberbullying than affective empathy. For instance, Utomo., (2022) found that cognitive empathy was significantly and negatively correlated with both cyber and traditional bullying perpetration, whereas affective empathy showed a weaker relationship. This suggests that understanding the victim's perspective may be more critical in preventing aggressive behavior than merely sharing the victim's emotions.

Additional variables enrich this theoretical understanding. Hong., (2023) observed that moral disengagement increases the likelihood that adolescents will remain passive bystanders, whereas high empathy promotes defender behavior. Lozano-Blasco et al., (2022) added that dependence on digital technology can increase involvement as both perpetrator and victim, but family support and self-regulation can serve as protective factors. These findings echo Bronfenbrenner., (1979) which underscores the interaction of personal, family, and environmental factors in shaping behavior.

The novelty of this review lies in its focused examination of cyber empathy, a concept rarely analyzed systematically during the 2020-2024 period. By emphasizing the cross-cultural consistency of empathy's protective role (Germany, the Philippines, Indonesia, South Korea, Costa Rica, Turkey, and Iran) and the particular significance of the cognitive dimension, this review strengthens the empirical foundation for empathy-based interventions across diverse cultural contexts.

Practical implications are highly relevant for educational policy and psychosocial interventions. Empathy-training programs that emphasize cognitive perspective-taking could serve as effective strategies to reduce cyberbullying in schools and online communities. Interventions such as social perspective-taking training, as reported by Safari et al., (2021) have been shown to enhance emotional intelligence and decrease online aggression. Moreover, family involvement, highlighted by Lozano-Blasco et al., (2022) underscores the importance of systemic approaches that include parental support and the reinforcement of adolescents' self-regulation.

Nevertheless, several limitations should be acknowledged. First, most of the reviewed studies employed cross-sectional designs, which prevent causal conclusions about the relationship between empathy and cyberbullying. Second, the reliance on self-report survey methods introduces potential social-desirability and recall biases. Third, although the studies

represent multiple countries, the samples were predominantly adolescents and college students, limiting generalizability to younger children or adults.

This SLR also faced methodological constraints. The literature search was restricted to Google Scholar and Scopus, which may have excluded relevant publications indexed in other databases. Furthermore, limiting the review to the 2020-2024 time frame excluded earlier studies that might provide historical context. Even so, the strict inclusion criteria ensured that all analyzed articles met adequate methodological standards in accordance with PRISMA guidelines.

The primary strength of this review lies in its systematic approach, its focus on recent cross-cultural literature, and its detailed analysis of empathy dimensions. By synthesizing findings from eight countries, the review offers a comprehensive picture of empathy's role in preventing cyberbullying. This cross-cultural synthesis enhances external validity and provides clear directions for future research.

In sum, the evidence confirms that empathy particularly its cognitive component plays a critical role in reducing cyberbullying across cultural settings. These findings reinforce existing theories of aggression and empathy while offering a practical foundation for designing empathy-based prevention programs in schools, digital communities, and family environments. Future studies are encouraged to employ longitudinal or experimental designs to clarify causal pathways and to include more diverse age groups and cultural contexts.

## **CONCLUSION**

This systematic literature review demonstrates that empathy particularly its cognitive dimension serves as a key protective factor against involvement in cyberbullying. Across the eight articles selected from 2020 to 2024, the findings consistently confirm that higher levels of both cognitive and affective empathy are associated with a lower likelihood of becoming either a perpetrator or a victim of online aggression. Cross-cultural evidence from Germany, Indonesia, the Philippines, South Korea, Costa Rica, Iran, and Turkey strengthens the conclusion that the protective role of empathy is universal, although the magnitude of its effect may vary depending on social context, family support, and levels of self-regulation. Notably, cognitive empathy the ability to understand another person's perspective emerged as more influential than affective empathy in preventing digital aggression.

Based on these findings, this review recommends enhancing empathy-training programs that emphasize cognitive perspective-taking within schools and digital communities, accompanied by active involvement of families and educators to foster a culture of empathic communication. Future research should employ longitudinal or experimental designs to

examine causal pathways more thoroughly and to explore differences across cultures, age groups, and social media platforms. Strengthening digital empathy can thus be considered a strategic step toward creating a safer and more ethical online ecosystem, while also providing a solid empirical foundation for digital literacy initiatives and character-education policies in Indonesia.

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