



FACTORS OF RISK ASSOCIATED WITH BULLYING IN SCHOOL-AGE CHILDREN: A SYSTEMATIC REVIEW

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ABSTRACT

Children in school frequently look to others for approval and take pride in their achievements. The Objective: The purpose of this research is to analyze the impact of bullying on mental and physical health and to understand ways to prevent bullying. Methods: Using a systematic review methodology, the study drew information from secondary sources found by using keyword searches in databases like Garuda, Science Direct, Sinta, and PubMed, search for journal articles for 2018-2023, and 15 articles that met the inclusion criteria were reviewed. The journals' classification, language, and year of publication were taken into consideration when selecting the papers. The study topic was formulated using the Pico framework, and search strategies were developed by incorporating Boolean operators (or, and, not) to achieve a more complete search. The search, selection, and analysis of pertinent literature were conducted rigorously in the review by adhering to the prisma. Results: Ten publications in all fulfilled the requirements for inclusion in the systematic review. Psychological problems such as despair, anxiety, low self-esteem, social disengagement, feelings of isolation, difficulty focusing, scholastic decline, emotional instability, behavioral changes, and suicidal thoughts were among the many themes discussed in the papers. Furthermore, five research emphasized the detrimental effects of bullying on one's physical health, including headaches, insomnia, digestive troubles, respiratory problems, anorexia, back pain, and chest pain. Conclusion: Bullying has a major negative impact on a child's physical and mental health when they are in school. The risk factors that have been found offer significant insights into the dynamics of bullying behavior, which has implications for methods related to prevention and intervention.

Keywords: bullying; children; impact; physical; mental

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INTRODUCTION

Due to outside pressures to interact socially with their peers, school-aged children are more susceptible to maltreatment. Youngsters frequently seek affirmation from others and take pride in their accomplishments. This behaviour aligns with a key developmental stage, industry versus inferiority, as outlined in early childhood development theories (Hockenberry, 2017). During this phase, children transition from the familial environment to the educational setting, where social interactions become a vital part of their development (Wakhid et al., 2017). Failure to navigate these interactions successfully can lead to negative psychological effects, including fear, anxiety, and irritability. In school environments, children frequently engage in behaviours such as name-calling, arguing, pushing, and teasing. Positive and bad results can result from these interactions; unfavorable outcomes are usually linked to the

incidence of bullying. If bullying is not addressed, it can have a major negative impact on children's peer relationships in both a passive and aggressive manner (Miftahudin, 2019)

The adverse effects of bullying extend beyond the immediate distress caused to the child. Bullying during critical developmental years can disrupt psychological well-being and social development (Komala Sari, 2020). The long-term impacts may manifest in emotional health issues and psychological difficulties, which can contribute to negative peer relationships in the future. Verbal bullying, in particular, has been linked to fear of attending school, low self-esteem, depression, and a decline in academic interest and achievement (Suci et al., 2021a). Nonverbal bullying can result in physical discomfort, heightened fear, and difficulties with concentration. Bullying not only inflicts profound psychological harm but also tangible physical harm on its victims. It is essential to emphasize that responding to bullying with further aggression is not a viable solution. However, with adequate support, victims can emerge more resilient, gaining self-confidence and an improved sense of self-worth (Putri, 2020). Bullying is a widespread issue within educational settings, predominantly involving minors as both perpetrators and victims. Bullying occurs on a spectrum, ranging from mild to severe, with mild cases potentially escalating if unresolved emotional distress persists (Ulfah et al., 2017). Peer-to-peer bullying negatively impacts social dynamics and overall school experience (Zhang A, Wang K, Zhang J, Kemp J, Diliberti M, 2018). Preventative measures, such as strengthening school regulations and facilitating mediation by teachers, can help mitigate bullying incidents (Wakhid et al., 2017). Additionally, schools must notify parents of students involved in bullying incidents and work collaboratively to resolve them. (Tri Bagas Romadhoni et al., 2023).

According to a study by the United Nations Children's Fund based on data from 100,000 children across eighteen countries, 67% of children reported being victims of bullying, citing reasons such as physical appearance, gender, and place of residence, each accounting for 25% of cases (UNICEF, 2020). Between January and April of 2019 alone, 67% of bullying cases were reported, with verbal bullying being the most prevalent form at 87% (Noventari & Suryaningsih, 2019) (Devita, 2019). The Organisation for Economic Cooperation and Development (OECD) reported that Indonesia had the highest rate of bullying among children, with 41.1% of school-aged children affected across 78 countries (Komala Sari, 2020). The average age at which bullying begins is as early as two years old, with approximately one billion individuals experiencing bullying by the age of 17, particularly in Africa, Asia, and North America (KPAI, 2023). In response to the prevalence of bullying, this article aims to conduct a systematic review of interventions designed to prevent bullying in preschool settings. A systematic review allows for a comprehensive analysis of specific topics or research questions posed by the scientific community. This review focuses on the role of peer groups in early childhood bullying and the effectiveness of interventions targeting this issue.

METHOD

Research design

This study utilizes a systematic review methodology, which involves a comprehensive and critical analysis of the scientific literature relevant to the research question, rather than simply providing a summary. The literature reviewed demonstrates a clear connection between the formulated research questions and the existing body of knowledge. Depending on the nature of the research, a systematic review can function as an independent study or as an introductory component of a larger research project. Systematic reviews are particularly valuable as they offer insights into the existing research landscape, justify the need for further investigation, establish connections between studies or concepts, identify prevalent themes,

concepts, and researchers, highlight gaps in the literature, and propose new research questions based on prior findings (Florida, 2020). A systematic review can be described as a critical evaluation of ongoing scientific research related to a specific subject. It includes assessments, summaries, and reflections by the author on various library sources such as books, presentations, and online information relevant to the subject under investigation (O'Connor, A., Sargeant, J. and Wood, 2017).

Inclusion Criteria

To narrow and focus the search on articles most relevant to the chosen topic, the inclusion criteria for this study were formulated based on the following factors: study period, study type, intervention type, language, and measurement outcomes, search for journal articles for 2018-2023, and 15 articles that met the inclusion criteria were reviewed. The PICO framework (Population, Intervention, Comparison, Outcome) was utilized to formulate the research questions, as detailed below:

Table 1.
Description of PICO

Criteria	Definition
P (Population, Problem)	School-Age Children
I (Intervention, Indicator)	Bullying Actions
C (Comparison)	Bullying
O (Outcome)	Increase or decrease in bullying rates

Search Methods

The literature search process began before and continued throughout the systematic review. Secondary data were obtained through searches of published articles from databases such as SINTA, Garuda, Science Direct, and PubMed. The search employed several keywords developed using the PICO framework. The keywords for this review included "How is bullying in school-aged children?" (Ilmia Maulidah & Wahyu Agus Winarno, 2022). In addition, Boolean operators (OR, AND, NOT) were used to expand the search scope, facilitating the identification of relevant articles for review. Keywords were combined to address the research questions, including efforts to prevent labelling of preschool children (Putri, S. R. A., Ismaya, Erik Aditia., and Fardani, 2021).

Article Search

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses, guidelines were followed to describe the process of article selection. The search process involved the following steps:

- a. Scanning:
A systematic search of online databases, catalogues, subject encyclopedias, periodic tables of contents, and abstracts to identify relevant works, including books, articles, theses, reports, and conference proceedings.
- b. Reading
A quick review of the identified literature to assess its relevance and potential contribution to the study. Skimming helps in identifying key ideas and selecting information for inclusion in the systematic review.
- c. Mapping
Organizing the information (citations) obtained during the search to be included in the systematic review. Mapping helps retain important data from the selected articles and ensures systematic organization of the information.

The data synthesis process for this systematic review employed quantitative descriptive analysis, with the primary objective of providing an objective description of the research problem under investigation. The collected data were summarized in a research diary, including details such as the name of the study, year of publication, article title, source, method, summary, findings, and conclusions (Handayani E, 2019). To ensure the quality and suitability of the journals used, the Joanna Briggs Institute (JBI) Critical Appraisal Tools were applied. This instrument facilitated the screening of journal articles based on the inclusion criteria and assessed their quality. Each criterion was rated as "Yes," "No," or "Can't tell," with each "Yes" receiving one point. The total score for each study was calculated, and only those meeting the inclusion criteria were incorporated into the review.

Search Method

The systematic review employed a comprehensive search using multiple databases, including PubMed, Science Direct, GARUDA, and Dimensions, to assess the impact of bullying on both mental and physical health. Different search terms were applied in each database, depending on the database’s preferences. The search terms were grouped into three main categories, which are summarized in Table 1 below:

Table 2.
Search Terms Using Different Database

Group	PubMed	ScienceDirect	GARUDA	Dimensions
Keyword 1	((The Impact of Bullying) (Mental Health Impact OR Physical Health Impact))	((The Impact of Bullying) (Mental Health Impact OR Physical Health Impact))	((The Impact of Bullying) (Mental Health Impact OR Physical Health Impact))	((The Impact of Bullying) (Mental Health Impact OR Physical Health Impact))
Keyword 2	((The effects of Bullying) (Mental Health Impact AND Physical Health Impact))	((The effects of Bullying) (Mental Health Impact AND Physical Health Impact))	((The effects of Bullying) (Mental Health Impact AND Physical Health Impact))	((The effects of Bullying) (Mental Health Impact AND Physical Health Impact))

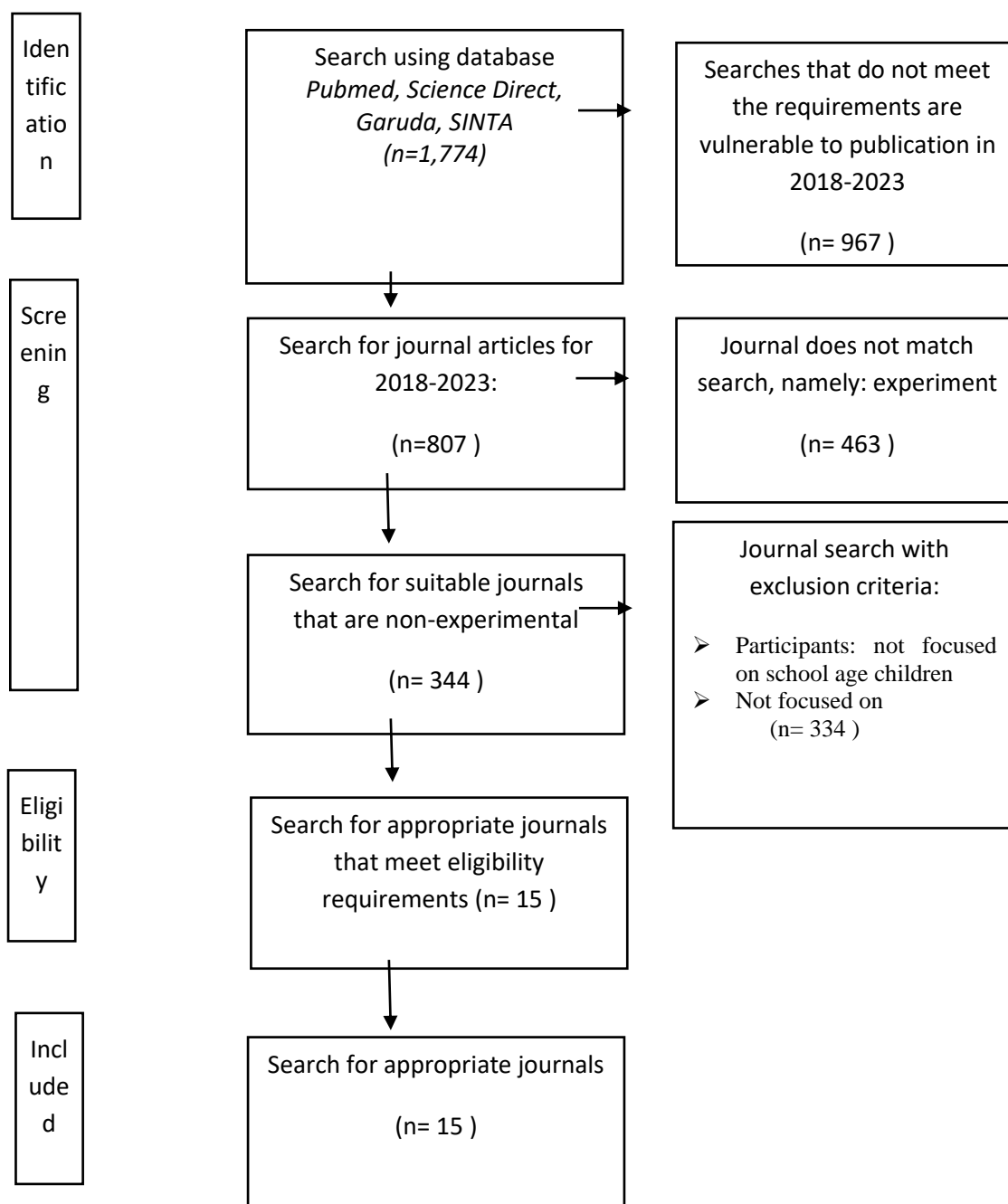


Figure 1: Preferred Reporting Items for Systematic Reviews and Meta analysis

Evaluation Quality

A critical appraisal of the journals included in this review was conducted using the Joanna Briggs Institute (JBI) checklist. The studies were evaluated for methodological quality, with results presented in Tables 2 through 5. The selected studies included cross-sectional analyses, descriptive statistical studies, qualitative studies, and mixed-method studies. The authors independently assessed the studies and reached a consensus on their quality. Each study was scored based on the JBI checklist (Yes = 2, No = 0, Unclear = 1), and the final scores were converted to percentages. To ensure high methodological quality only studies scoring 70% or higher were included in the review (Chandrasekaran & Fernandes, 2020).

Table 3.
Critical Appraisal of Cross-sectional Studies

Writer	Assessment checklist for cross-sectional studies								Results
	1	2	3	4	5	6	7	8	
Albdour et al., 2019	Y	Y	Y	Y	N	N	Y	Y	12/16 (75%)
Abdelaziz& Snieneh, 2021	Y	N	Y	Y	Y	Y	Y	Y	14/16 (87%)
Saniyaet al., 2019	Y	Y	Y	Y	Y	Y	Y	Y	16/16 (100%)
Aini& Apriana, 2018	Y	Y	Y	Y	N	N	Y	Y	12/16 (75%)
Dwiyantiet al., 2022	Y	Y	Y	N	N	Y	Y	Y	12/16 (75%)

Y = Yes, N = No. Criteria include: 1. Clearly defined inclusion criteria; 2. Detailed explanation of research subjects and settings; 3. Valid and reliable measurement of exposure; 4. Use of objective criteria for condition measurement; 5. Identification of confounding factors; 6. Strategies for dealing with confounding factors; 7. Valid and reliable outcome measurement; 8. Appropriate statistical analysis.

Table 4.
Critical Appraisal of Qualitative Studies

Writer	Assessment Checklist for Qualitative Studies										Results
	1	2	3	4	5	6	7	8	9	10	
Jelita et al., 2021	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	20/20 (100%)
Triatmojo & Hangestiningsih, 2019	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	20/20 (100%)
Diana et al., 2022	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	18/20 (90%)
Mega Mega, Tarafillah Anggun, 2023	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	18/20 (90%)
Zakiah et al., 2018	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	20/20 (100%)
Sidera et al., 2021	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	18/20 (90%)
Jelita et al., 2021	Y	Y	Y	Y	Y	N	Y	Y	N	Y	16/20 (80%)

Y = Yes; N = No; U = Unclear. Here's an assessment checklist: 1. Is there congruence between the stated philosophical perspective and the research methodology? 2. Is there a match between the research methodology and the research questions or objectives? 3. Is there a match between the research methodology and the methods used to collect data? 4. Is there a match between the research methodology and the interpretation of the results? 5. Is there a match between the research methodology and the interpretation of the results? 6. Are there any statements that position the researcher culturally or theoretically? 7. What is the influence of the researcher on the research, and vice versa, addressed? 8. Are participants, and their voices, adequately represented? 9. Does the research ethically comply with current criteria or, for recent studies, is there evidence of ethical approval by an appropriate body? 10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?.

Table 5.
Critical Appraisal of Statistical Descriptive Studies

Writer	Assessment Checklist for Descriptive Statistics Studies										Results
	1	2	3	4	5	6	7	8	9	10	
Guo et al., 2022	Y	Y	Y	Y	Y	N	N	Y	Y	Y	16/20 (80%)
Camodeca, 2020	Y	Y	Y	Y	Y	N	N	Y	Y	Y	16/20 (80%)

Y = yes; N = no; U = unclear. 1. Are there clear criteria for inclusion in a case series? 2. Was the condition measured in a standardized and reliable manner for all participants included in the case series? 3. Was a valid method used to identify the conditions of all participants included in the case series? 4. Does the case series involve consecutive participants? 5. Does the case series include the full range of participants? 6. Was there clear reporting of participant demographics in the study? 7. Is there clear reporting of participant clinical information? 8. Are the results or follow-up results of cases reported clearly? 9. Is there clear

reporting of the location/clinic demographic information displayed? 10. Is statistical analysis appropriate?

Table 6. Critical Appraisal of Mixed Method Studies

Writer	Assessment checklist for Mixed Method studies													Results
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Muluk et al., 2021	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	22/26 (84%)

Y = Yes; N = No; U = Unclear. 1. Is randomization correctly used for the assignment of participants to treatment groups? 2 Is allocation to treatment groups hidden? 3. Were the treatment groups similar at baseline? 4. Are participants unaware of the treatment assignment? 5. Are those providing treatment on treatment assignments? 6. Is the outcome assessor on the treatment assignment? 7. Are the treatment groups treated the same other than the intervention of interest? 8. Was follow-up complete and if not, were differences between groups in terms of follow-up adequately described and analyzed? 9. Were participants analyzed in randomized groups? 10. Are outcomes measured in the same way for treatment groups? 11. Are results measured reliably? 12. Was appropriate statistical analysis used? 13. Was the trial design appropriate, and were any deviations from the standard RCT design (individual randomization, parallel groups) taken into account in the conduct and analysis of the trial? Research journal review of 15 studies using cross-sectional methods, namely (Albdour et al., 2019) with 75%, (Abdelaziz & Snieneh, 2021)with 87%, (Saniya, 2019)with 100%, (Aini & Apriana, 2018)with 75%, (Dwiyanti et al., 2022) with 75%. Then one study used a qualitative study(Suci et al., 2021b)with 100%, (Triatmojo & Hangestiningsih, 2019) with 100% , (Diana, 2022) with 90%, (Zakiyah et al., 2018) with 90%, with 100%, (Sidera et al., 2021) with 90%, (Suci et al., 2021b) with 80%. Then one research uses descriptive Statistics viz (Guo et al., 2022) with 80%, (Camodeca, 2020) with 80% and one final study used a mixed method study, namely (Muluk et al., 2021) with 84%. In this explanation, it can be said that all study journals have a value that exceeds the minimum score that has been determined.

Characteristics of Study Journals

The journals included in this systematic review were categorized based on extracted data relevant to the research objectives. The data were analyzed for similarities and differences, and the findings were discussed to formulate the conclusions.

RESULT

This table provides a detailed overview of the key findings from each study, illustrating the various effects of bullying on children and adolescents across different contexts. The results highlight the wide range of negative impacts, from psychological trauma and diminished self-esteem to physical health issues and impaired academic performance.

Table 7. Data Extraction of the Selected Studies

Title (Researcher Name, Year)	Design	Subject	Results	Conclusion
The impact of bullying on children's self-confidence (Suci et al., 2021b)	Qualitative with case and interview design	Sample: Kedungmundu Public Elementary School students, Semarang Age:6-12 years	Verbal bullying leads to feelings of inferiority, lack of self-confidence, and social withdrawal. Non-verbal bullying results in physical harm and decreased focus.	The impact of bullying on children's self-confidence varies; in some cases, bullying decreases self-confidence, while

Title (Researcher Name, Year)	Design	Subject	Results	Conclusion
				in others it may increase confidence as motivation.
Chains of tragedy: The impact of bullying victimization on mental health through the mediating role of aggressive behaviour and perceived social support(Guo et al. 2022)	Descriptive statistics	Sample: 3,635	Bullying victimization was significantly correlated with aggressive behaviour, perceived social support, and mental health, including anxiety, depression, and subjective well-being.	Maladaptive behaviour by victims of bullying can lead to changes in social support and mental health problems that they experience.
Effects of Cyber Victimization on the Mental Health of Primary School Students(Sidera et al., 2021)	Qualitative research	Sample:636 Age:8-12 years	The results revealed that 14.4% of children, mostly boys, have experienced Cyberbullying which can affect children's lives as early as elementary school	Cyberbullying in elementary schools is more common among boys than girls. Additionally, the impact of cyberbullying was found to be higher in children who did not experience traditional bullying than in those who did.
The impact of bullying on the psychosocial conditions of class II students at SD N Suryodiningratan Yogyakarta (Triatmojo & Hangestiningsih, 2019)	Qualitative descriptive using purposive sampling technique	Sample:4 Age: 7 years old	Based on the results of research regarding the impact of bullying on students at SD N Suryodiningratan 1 Yogyakarta, the following data was obtained: Angry, Aloof, crying, Threatening to complain to parents, Reporting to the principal, Influencing not to be friends with students who often bully	Bullying behaviour that occurs at SD N Suryodiningratan 1 1 Yogyakarta is a form of non-physical bullying in the form of verbal such as making fun of their friends, threatening, scaring and intimidating their friends.
The Impact of Cyberbullying on Physical and Psychological Health of Arab American Adolescents(Albdour et al., 2019)	Cross-sectional	Samples: 150 Age:12-16 years old	Victims of cyberbullying experience significant detrimental effects on health and psychological well-being, namely low self-esteem, decreased achievement, sadness, stress and psychosomatic symptoms such as headaches, stomachaches, irritability and difficulty sleeping.	The high level of cyberbullying among Arab American teenagers has a significant impact on their psychological health and well-being.

Title (Researcher Name, Year)	Design	Subject	Results	Conclusion
The Long-Term Effects of Bullying, Victimization, and Bystander Behavior on Emotion Regulation and Its Physiological Correlates (Camodeca, 2020)	Descriptive statistics	Sample: 58	Victims of bullying can suffer long-term consequences from their experiences, manifesting problems in psychological functioning and health. Specifically, victims of relational bullying have problems in childhood with social exclusion.	Bullying victimization at school is associated with difficulties in emotional well-being in adulthood.
The impact of bullying on the mental health and academic achievement of nursing students (Abdelaziz & Snieneh, 2021)	Correlational cross-sectional design	Sample: 180	Approximately half of the participants had experienced at least one or more bullying behaviours on a daily or weekly basis during their nursing education.	Identified as a problem experienced by nursing students during education and training. The experience of bullying also hurts psychological health and perceived stress.
The impact of bullying behaviour on the self-esteem of teenagers in Pekanbaru (Saniya, 2019)	Quantitative research design with correlational design using a cross-sectional study approach	Sample: 109 13 years old	Aggressive behaviour (bullying) that occurs results in various physical and psychological impacts, psychological impacts such as psychological trauma, fear, insecurity, resentment, decreased enthusiasm for learning, concentration power, creativity, loss of initiative, as well as students' (mental) endurance, decreased self-confidence, and the pressure of mental burdens.	There is a close relationship between aggressive behaviour (bullying) on self-esteem, where the lower the victim of bullying, the higher the level of self-esteem and the higher the victim of bullying, the lower the level of self-esteem
The impact of bullying on EFL students' academic achievement at state Islamic universities in Indonesia (Muluk et al., 2021)	Mixed-method research design	Sample: 576	The impact of bullying has pushed its victims into four sad conditions: lack of self-confidence, stress, anxiety, passivity and hinders their learning process because their psychological state can interfere which affects their learning habits and behavior.	<i>Bullying</i> affects student academic achievement.
The impact of bullying on the social-emotional development of early	Descriptive qualitative research design with a	Sample :3 Age: 5 years old	Acts of violence or bullying that occur in early childhood have a big influence on children's development. The	<i>Bullying</i> hurts children's social and emotional development.

Title (Researcher Name, Year)	Design	Subject	Results	Conclusion
childhood (Case Study) at Raudhatul Athfal Mawar Gayo (Diana, 2022)	case study approach		negative effects caused by bullying can cause delays in children's development, not only their social development but also the emotional development shown by children. The impact caused by bullying behaviour was found to be that children were more often alone and did not like to socialize, felt afraid/afraid, afraid to go to school, cried before and after school, were not interested in school activities, had drastic changes in behaviour (attitude, clothing and habits).	Children are not only emotionally disturbed, but social contact with other people also decreases. This impact not only damages children's social-emotional development but also affects other developments.
<i>Bullying: Problems that Impact "Suicide Ideation"</i> (Dwiyanti et al., 2022)	Cross-sectional research design	Sample:34 Age:18-23 years old	Most respondents who experienced bullying or suicidal thoughts did not tell other people about what they experienced. The impact of bullying includes causing someone to feel worthless, regret being born, and depression. Depression is one of the triggers for suicidal ideation. Not all respondents who experienced suicidal ideation had experienced bullying.	The relationship between the influence of bullying and suicide ideation is not significant, but the percentage obtained is 4.4% and the rest is influenced by other factors.
The influence of bullying on both mental and physical health among adolescents(Mega et al., 2023)	Qualitative research design	Sample:4	<i>Bullying</i> hurts mental health such as depression, anxiety disorders and panic attacks while hurting physical health such as sleep disorders, headaches, digestive problems and respiratory infections.	<i>Bullying</i> can hurt both physical and mental health.
The impact of bullying on the developmental tasks of adolescent victims of bullying (Zakiyah et al., 2018)	Qualitative approach	Sample:2	<i>Bullying</i> What happened at the Telkom Bandung Tourism Vocational School hurt the psychosocial conditions of the victims and influenced the developmental tasks of adolescent victims of bullying, however, some factors can hinder this impact, namely social support and coping strategies.	<i>Bullying</i> hurts the developmental tasks of adolescent victims to accept physical conditions and use them effectively.
The impact of verbal bullying on the interpersonal intelligence of class	Qualitative research design	Sample:5 Age: 7 years	There is a connection between the phenomenon of Verbal Bullying and the Interpersonal Intelligence of	The phenomenon of Verbal Bullying which is carried out

Title (Researcher Name, Year)	Design	Subject	Results	Conclusion
II students at SD Muhammadiyah Gendol VI Seyegan Sleman Yogyakarta (Suci et al., 2021b)		Class II Students at SD Muhammadiyah Gendol VI Seyegan, Sleman, Yogyakarta.		continuously will have a negative impact, both for the perpetrator and the victim and will disrupt the communication process between students.
The impact of cyberbullying on depression in nursing study program students (Aini & Apriana, 2018)	Cross-sectional, quantitative study design using research instruments in the form of questionnaires	Sample:70	The results of the analysis obtained a p-value of $0.02 < 0.05$, so it can be concluded that cyberbullying has an impact on student depression with $r = 0.273$ (medium strength) which means that respondents experienced mild depression (74.3%), and some experienced moderate depression of 18.6%. Mild depression is characterized by symptoms that can be seen effectively, namely: denying feelings, anger, anxiety, loneliness, helplessness, sadness and depression. Changes in behaviour are indicated by fear, restlessness, and withdrawal. Cognitive changes are characterized by a loss of enthusiasm for studying and blaming oneself and others.	From the results of the analysis, a p-value of $0.02 (<0.05)$, with $r = 0.273$, can be concluded that cyberbullying has an impact on depression in level I and II students (adolescent category), with a moderate level of correlation.

Table 7.
Impact of bullying on mental and physical health

Impact of Bullying	Research source
Mental health impacts	The impact of bullying on mental health, namely depression (Guo et al., 2022). Anxious, and easily emotional (Aini & Apriana, 2018). Low self-esteem (Triatmojo & Hangestiningsih, 2019). Withdraw (Saniya, 2019). Feeling excluded (Camodeca, 2020). Difficulty concentrating (Suci et al., 2021b). Learning achievement decreases (Albdour et al., 2019). Emotional (Aini & Apriana, 2018). Changes in behaviour (Zakiah et al., 2018) and risk of suicide (Dwiyanti et al., 2022)
Physical health impacts	The impact of bullying on physical health, namely headaches (Mega et al., 2023), (Albdour et al., 2019). Sleep disorders (Aini & Apriana, 2018), (Mega et al., 2023). Digestive problems, (Mega et al., 2023), (Albdour et al., 2019). Respiratory disease (Mega et al., 2023). Anorexia, back pain, and chest pain (Aini & Apriana, 2018)

DISCUSSION

Based on the findings from the 15 articles reviewed, bullying has significant negative impacts on both mental and physical health. The detrimental effects on mental health, as described in 10 articles, include depression, anxiety, low self-esteem, social withdrawal, feelings of isolation, difficulty concentrating, declining academic performance, emotional instability, behavioural changes, and suicidal ideation. The physical health impacts of bullying,

documented in 5 articles, include headaches, sleep disorders, digestive problems, respiratory issues, anorexia, back pain, and chest pain.

Mental Health Impacts of Bullying

The prevalence of bullying in today's environment has a profound effect on the development of victims, causing severe mental health challenges. Bullying can diminish self-confidence, lead to social isolation, and result in concentration difficulties that negatively affect academic performance and cause fear of attending school (Suci et al., 2021b). Additionally, bullying alters social support structures, contributing to increased anxiety and depression, as well as aggressive behaviours (Guo et al., 2022). Depression is often manifested through various symptoms such as denial of feelings, anger, loneliness, helplessness, sadness, and withdrawal (Aini & Apriana, 2018). Furthermore, depression is a major trigger for suicidal ideation among victims of bullying (Dwiyanti et al., 2022). Aggressive bullying behaviour also leads to psychological trauma, fear, insecurity, resentment, diminished concentration, creativity, loss of initiative, and decreased mental resilience, resulting in lower self-esteem (Saniya, 2019). Additionally, bullying can disrupt the developmental tasks of victims, affecting their psychosocial condition. However, certain factors, such as social support and coping strategies, can mitigate these impacts (Zakiyah et al., 2018).

Social Dysfunction

Social dysfunction occurs when individuals struggle to carry out their tasks and responsibilities effectively. It is characterized by an inability to perform tasks appropriately, dissatisfaction with one's work, and a lack of enjoyment in daily activities. Victims of bullying often experience social dysfunction due to their inability to adjust to interpersonal relationships, which can significantly hinder their social functioning (Sukmawati et al., 2021).

Low Self-Esteem

Low self-esteem is a psychological effect of bullying, where victims feel unvalued and lose confidence. Bullying is a major factor in lowering self-esteem, leading to difficulties in social environments due to the victim's personality. Individuals with low self-esteem often underperform academically and experience social rejection, believing that they are incapable of change. Victims of bullying with low self-esteem tend to feel demotivated, especially when faced with failure (Fara Sasanti Ayu Tantonno, 2019).

Anxiety Disorder

Another common impact of bullying is anxiety. Anxiety is a normal human emotional response, but when it becomes excessive, it can disrupt behaviour, affect cognition, and trigger physical symptoms. Anxiety is an exaggerated response to perceived threats, often leading to emotional, cognitive, physical, and behavioural symptoms (Widyarti Utami & Sri Astuti, 2019). Anxiety disorders can be categorized into two types: state anxiety, a temporary response to stressors, and trait anxiety, a more permanent condition that predisposes individuals to heightened anxiety in specific situations (Tripriantini et al., 2019).

Levels of Anxiety

Anxiety is divided into three levels: mild, moderate, and severe. Mild anxiety involves slight discomfort, moderate anxiety is characterized by a narrowing of perception and reduced focus, while severe anxiety leads to an inability to function normally (Kristika & Lestari, 2021)

Insomnia

Insomnia, or difficulty sleeping, is a common issue among victims of bullying. Victims often struggle to sleep due to the emotional and physical pain they endure. Insomnia in these individuals is linked to strong negative emotional pressure (Lutfiah Zahra & Miratul Hayati, 2022).

Depression

Depression is a mental illness commonly associated with feelings of loneliness, loss of interest in activities, low energy, and difficulty concentrating. Victims of bullying often feel unsafe and uncomfortable, which exacerbates feelings of helplessness and can lead to depression (Nur Khaliza et al., 2021).

Suicide

Depression resulting from bullying can escalate to suicidal ideation or self-harm. Feelings of loneliness, hopelessness, and lack of social support, triggered by bullying, are major factors in the development of suicidal thoughts. Suicidal ideation involves planning one's death in response to overwhelming emotional pain (Kuniasari & Rahmasari, 2019).

Physical Health Impacts of Bullying

In addition to the significant mental health effects, bullying also results in various physical health problems, including headaches, digestive issues, irritability, and sleep disturbances (Albdour et al., 2019). Victims of bullying, whether physically or mentally affected, often experience trauma that can manifest in long-term mental health problems. Signs in victims include difficulty socializing, fear of attending school, truancy, and an inability to concentrate, all of which contribute to declining academic performance and physical health (Santoso, 2018). The physical health impacts of bullying include symptoms such as headaches, stomach aches, muscle tension, a sense of insecurity within the school environment, and a decline in both academic motivation and academic performance (Yudha et al., 2022). The physical health consequences of bullying can be more severe, leading to injuries such as broken bones, damaged teeth, concussions, eye injuries, and even permanent brain damage. The bullying experienced by victims can have detrimental effects on their overall development (Astuti & Yusuf, 2019).

CONCLUSION

Bullying has the following effects on both mental and physical health, according to the findings of an investigation: Bullying is associated with negative effects on mental health, including inability to concentrate, decreased academic performance, anxiety, depression, low self-esteem, withdrawal, heightened emotions, and alterations in behaviour. Suicidal risk and behaviour. Anorexia, back pain, chest pain, migraines, sleep disorders, digestive issues, and respiratory diseases are all physical health consequences of bullying.

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