Review

School Bullying and Mental Health in Adolescence: A Narrative Review on Perpetrator, Victim, Positive Bystander and Negative Bystander

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ABSTRACT

This article is a comprehensive review of school bullying, which has been taken as a significant public health issue for our children and ourselves. It increases the risk of lifelong consequences, including mental disorders and social problems. Though there are existing reviews summarizing some critical parts of this topic, there is scarce systematic examination of the fundamentals of bullying and comparisons across different bullying roles of victims, perpetrators, and, in particular, positive and negative bystanders. By examining prevalence rates, types, influencing factors, consequences, correlates, preventions, and mediators, this article aims to consolidate an in-depth understanding of school bullying dynamics and their mental health implications. Additionally, combining both Western and Chinese studies offers a cross-cultural perspective. Finally, this review also suggests future research direction, emphasizing the need for attention to negative bystanders and targeted and culturally sensitive prevention strategies.

Main Contribution to Evidence-Based Practice

The main contribution of this study is the provision of evidence-based insights and knowledge that equips stakeholders in the healthcare sector with a holistic view of the bullying phenomena, especially affecting adolescents in the school environment. It allows for informed decision-making, the formulation of effective policies, and the advancement of prevention of bullying and mental health challenges to benefit adolescents at schools across the World.

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What do we already know about this topic?
There has been increasing attention on school bullying, which is widespread worldwide. Bullying has an impact on the mental well-being of adolescents, and the impact factors can differ depending on the roles individuals play. There is a dearth of extensive research on comprehensive aspects of the roles of bullying and its correlates.
What is the main contribution to Evidence-Based Practice from this article?
This article provides updated evidence on this topic by comparing four roles of bullying, with particular attention being placed on subcategories of positive and negative bystander roles.
What are your research's implications towards theory, practice, or policy?
Understanding the prevalence, determinants, correlation with mental health, and prevention of bullying roles has significant implications for healthcare policies aimed at addressing this issue.
Authors' Contributions Statement: Xu Wang conceptualized, undertook the methodology and revised and wrote the text of this manuscript.

Introduction

Bullying in school constitutes a substantial and persistent threat to the developmental trajectories of adolescence, with a particular impact on those situated in secondary school settings because of the specific age characteristics (Sigurdson et al., 2015). This harmful phenomenon affects individuals assuming distinct roles within the bullying dynamic, including victim, perpetrator, and bystander. Though a considerable number of studies have investigated the association between bullying and the mental well-being of adolescents in both Eastern and Western cultural contexts, most studies have focused on the experiences of victimized individuals. There is a lack of comprehensive research on mental health outcomes across various roles, particularly focusing on subcategories like positive bystanders and negative bystanders.

Furthermore, a thorough examination of the moderating and mediating factors that impact and explain the relationship between the roles in the context of bullying and its outcomes in China is notably scarce. This research gap may cause governmental agencies, educational institutions, and other stakeholders to overlook some affected populations, leading to insufficient and ineffective development of preventive interventions.

This review will address this research gap by providing a picture of the fundamentals of school bullying. Several research questions will be raised. What are the differences in affecting factors for the four roles? What are the differences in correlation with mental health and other consequences considering the comparison of those roles together? Are there any interesting findings about negative bystanders and active bystanders? Answering these questions will be helpful in advocating for a more inclusive focus on the risks of all participants in bullying incidents and in developing more effective and holistic preventive measures. This review builds upon existing studies and highlights innovations that may increase the current knowledge base by discussing the explanations for all results of research questions in terms of theories in psychology and proposing a bunch of intervention recommendations for policymakers. The study will also provide suggestions for future research directions.

The main objectives of the review are threefold: (1) to precisely summarize the basic concepts in this field and to provide a systematic synthesis of previous research findings, elucidating the rationale for investigating the relationship between bullying, its influencing factors, and its outcomes; (2) to compare the present state and prevailing trends in this field of study in China and western countries; (3) to identify the research gap for potential exploration of positive bystander and negative bystander.

Method

Source

A thorough search was conducted across PubMed, Web of Science, Scopus, and CNKI, targeting studies published between 2014 and 2023. A Boolean query method is used to create keywords in the search: ("bullying" OR "bullying behavior") AND ("perpetrator*" OR "victim*" OR "bystander*" OR "witness*") AND ("mental health" OR "psychological well-being" OR "psychological disorders "OR "depression" OR "anxiety" OR "suicidal risk") AND ("adolescence" OR "teenagers" OR "youth" OR "student") in abstract. The inclusion also covered some seminal literature and reports outside the specified time range and databases but contributed essential background and knowledge of this area.

Inclusion and Exclusion Criteria

The following inclusion rules were selected: (1) original studies published in journals, including cross-sectional, longitudinal, and intervention studies; (2) research investigating the correlates between exposure to bullying and its impact factors or subsequent consequences; (3) student population-based studies. On the other hand, exclusion criteria involved rejecting literature targeting different populations, workplace bullying, and other types of bullying.

Search Output

According to the above criteria and searching process, 304 Chinese and 4,074 English articles were identified at first. Subsequent screening of titles and abstracts helped eliminate papers that did not fit the inclusion criteria. At this stage, 8 Chinese and 283 English articles were selected for further review. Then, the contents of these articles were examined using the selection framework. In the end, this review had a total of 68 pieces of articles, consisting of 3 Chinese and 65 English, taken as the primary source of data and insights for the review (Table 1).

Results

Definitions of school bullying

Dan Olweus, a pioneer Norwegian scholar in this field, defined bullying as the recurrent and prolonged exposure to harmful behaviors perpetrated by one or more individuals, with power imbalance favoring the aggressor over the bullied (Olweus, 1993). A more specific definition by another study described bullying as a purposeful, assertive conduct wherein individuals in positions of dominance deliberately inflict psychological or physical distress upon others (Y. S. Kim & Leventhal, 2008). However, a systematic review revealed a lack of standardized definitions and measures for school bullying, with diverse scholars proposing varied conceptual interpretations (Zhang & Jiang, 2022). This absence of uniform definition has led to a broad spectrum of reported prevalence rates mentioned in empirical studies (Han et al., 2017).

Role's classification of bullying behavior

Within the dynamics of bullying, three main roles are figured out in most studies: the victim, the perpetrator, and the witness or bystander (Zych et al., 2019). Bystanders can be further subdivided into positive and negative categories. Negative bystanders who witness bullying incidents act as outsiders or provide support to the aggressor. Positive bystanders who emerge as defenders of the victim offer assistance and protection (Salmivalli et al., 1996). To be more specific, several studies have classified bystander responses into passive, assisting, and defending categories (Waasdorp et al., 2022). The fluidity of psychological dynamics allows for role interchange among the three primary roles in bullying, such as victims transitioning into the role of perpetrators (Choi & Park, 2018). Therefore, individuals who behave as bully and victim are often termed "bully-victims."

Types of bullying behavior

There are five distinct forms of bullying, including verbal, physical, relational, cyber, and sexual, with the first three being the most observed. In the rapidly evolving and technologically driven society, particularly with the widespread popularity of electronic devices and the internet in daily life, school bullying has diversified in its manifestations. Physical bullying involves actions such as punching, kicking, slapping, hair-pulling, and property theft (Kaye & Erdley, 2011). Verbal bullying includes mockery, insults, intimidation, coercion, and malicious vilification against the victim (Nishioka et al., 2011). Social or relational bullying manifests as collective and ostracism through group dynamics with more sophisticated interpersonal confrontations (Cho & Lee, 2018). Cyberbullying utilizes online platforms such as WeChat, emails, and other communication software to isolate and bully victims (Suzuki et al., 2013). Sexual bullying involves ridiculing or judging the victim's body, gender, or sexual orientation and may take aggressive sexual actions (Duncan, 1999). Additionally, counter-bullying occurs when the victim retaliates, becoming the role of the aggressor, seeking revenge against a former bully, or targeting a weaker classmate.

Table 1. Summary of selected studies

Source	Regions	Study Design	Sample Characteristics	Bullying Measurements	Mental Health Measurements	Major Related Findings
(S. S. Kim et al., 2022)	45 Countries	Cross-sectional survey	N=230,757 students, aged 11-15 years	Olweus Bullying scale	Cantril ladder HBSC psychosomatic symptom checklist	Bullying involvement was linked to poor mental health. Greater risk without supportive adults.
(Hysing et al., 2021)	Norway	Cross-sectional survey	N=19,430 born Between 1993 and 1995	Olweus Bully/Victim Questionnaire	Insomnia-DSM. Depression-Mood and Feelings Questionnaire Anxiety-Child Anxiety Related Emotional Disorders.	Bullied were more likely to have mental health problems than those who were not bullied. All types of bullying were linked to less sleep and a lower GPA compared to those who weren't bullied; absences from school didn't show a link.
(Luo et al., 2022)	China	Nationwide cross-sectional study	N=15,415 students at secondary school	Olweus Bully/ Victim Questionnaire	Anxiety - GAD-7 scale. Students reported past-year self-injurious behaviors to evaluate non-suicidal self-injury. Suicidal ideation-Composite International Diagnostic Interview.	2.72% bully/victims, 1.38% bullies, 10.89% victims, and 85.01% uninvolved. Anxiety, non-suicide self-injury, and suicidal thoughts increased the likelihood of bullying.
(Man et al., 2022)	65 Countries	Global School-based Student Health Survey 2003-2015	N=167,286 students at secondary school	Single item questions	Mental health-multi-item questions in the questionnaire, focusing on loneliness and anxiety.	Bullying prevalence was 32.03%, highest in African countries, with verbal bullying having the greatest impact on mental health. "Parental supervision," "connectedness," and "bonding" were protective factors for bullied adolescents.
(Le et al., 2017)	Vietnam	Longitudinal study	N=1,424 students at secondary school	Revised Olweus Bully/Victim Questionnaire	Epidemiological Studies-Depression Scale Suicidal ideation-three items from the American School Health Association. Kessler Psychological Distress Scale (K-10).	Depressed, distressed, and suicidal students were more likely to be victims or bullies
(Turcotte Benedict et al., 2015)	USA	Second-analysis	N=63,997 National Survey of Children's Health	Single item interview question	Mental health-depression, anxiety, and ADD/ADHD based on the respondent's report.	15.2% of 6–17 years old US children as bullies. Children with depression, anxiety, or ADHD were three times as likely to bully.
(B. Hu, 2021)	China	Longitudinal second analysis	China Health and Retirement	Self-reported bullying victimization during childhood	CES-D Life satisfaction-single-item scale	Older adults bullied in childhood exhibit heightened depressive symptoms and increased life dissatisfaction compared to those without a history of bullying.

Table 1 (continued)

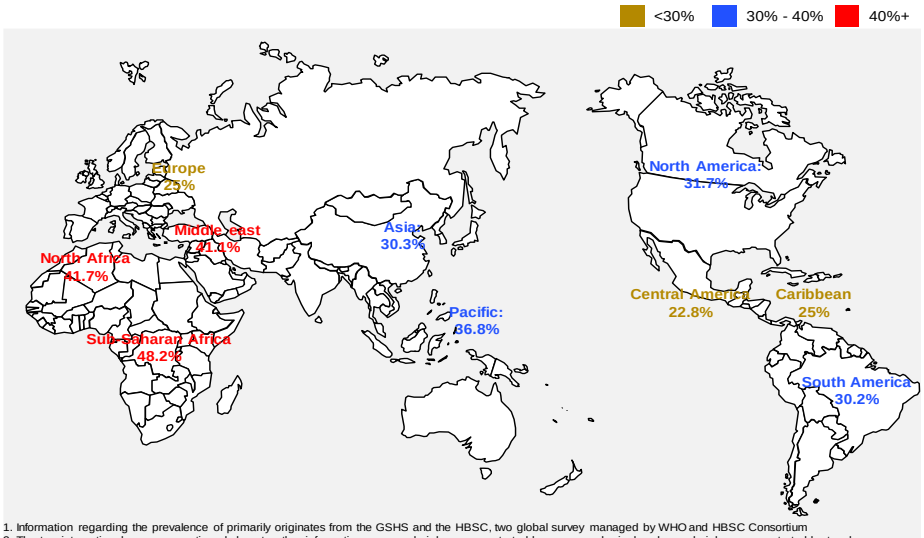
Source	Regions	Study Design	Sample Characteristics	Bullying Measurements	Mental Health Measurements	Major Related Findings
(Ford et al., 2017)	Australia	Longitudinal Study	N=3,537 Australian adolescents	School Climate Bullying Scale Edinburgh Study of Youth Transitions and Crime	Strengths and Difficulties Questionnaire (SDQ), Children's Anxiety Scale (CAS-8) and Short MFQ	Bully-victims had the highest likelihood of self-harm, suicide thoughts, planning, and attempts, followed by victims and bullies.
(Eyuboglu et al.2021),	Turkey	Cross-sectional, online survey	N=6,202 middle and high students	Modified 33-item self-report questionnaire	Self-harm-Single item question. Depression and Anxiety-Hospital Anxiety Depression Scale Behavioral Problem-Strength and Difficulties Questionnaire	The prevalence of traditional school bullying is significant during the educational stage. Being a victim, perpetrator, or both in bullying is linked to mental health problems and self-harm behavior. Bullying in schools generally declines with grade level, but cyberbullying victimization shows no such decreasing trend.
(S. Zhang et al.,2020)	China	Cross-sectional study	N=20,722 second school students in Guangdong	Olweus Bully/Victim Questionnaire	Anxiety- GAD-7. Depression-Center for Epidemiology Scale for Depression. Suicide attempts-Single item question	Both genders showed a continuum between bullying victimization latent class and mental health effects.
(Alvis et al.,2023)	USA	Cross-sectional study	N=899 youth exposed to bullying	Trauma exposure - DSMD	Depression: Short Mood and Feelings Questionnaire The Active Inhibition Scale	When trauma exposure and demographic characteristics were considered, those who were bullied had more severe depression and PTSS symptoms.
(Koyanagietal., 2019)	48 Countries	Cross-sectional study	N=134,229 participants of 12-15 years old	Single-item Question	Suicide attempt-Single-item Question	3.06 of odds ratio for bullied showed suicide attempt among 47 countries
(Lebrun-Harris et al., 2019)	USA	Cross-sectional study	N=50,212 Children and adolescents	Single-item Question	Special Health Care Needs Screener	Various health conditions and health service factors, such as special healthcare needs, internalizing problems, behavior issues, speech disorders, autism spectrum, and inadequate mental health treatment, are linked to either being a victim or perpetrator of bullying.
(Z. Peng et al.,2019)	China	Cross-sectional study	N=2,647 students from Guangdong Province	Modified Questions	Suicide-Multiple Questions	Individuals who experienced both traditional and cyber bullying showed a higher likelihood of experiencing suicidal thoughts, self-harm ideation, and actual suicide attempts compared to those experiencing only one type of bullying

Prevalence of bullying

Bullying is a pervasive global phenomenon, yet prevalence rates vary across regions, as evidenced by diverse findings in articles. Based on US government figures, almost 22% of students between the ages of 12 and 18 reported being victims of bullying during the 2019 school year. Notably, this percentage decreased from the 28% reported in 2009 (US Department of Education, 2020). A survey conducted in 40 developing nations revealed that, on average, 42% of males and 37% of girls reported having been victims of bullying (WHO, 2021). A large-scale study conducted in Japan revealed a prevalence rate of 35.8% among pupils in grades 4 to 9 (Osuka et al., 2019).

A cross-national survey spanning 45 countries in 2018 reported an overall prevalence rate of school bullying ranging from 2.9% to 12.2% among adolescents (S. S. Kim et al., 2022). A study found that the prevalence of bullying in Australia was 15.17% (Jadambaa et al., 2019). To get an idea of the whole picture of prevalence in the world, we collected data from an official report of the United Nations Educational, Scientific and Cultural Organization (UNESCO) illustrated in Figure 1. On average, 32% of students worldwide have encountered bullying by their peers at least once within a month (UNESCO, 2019).

Figure 1. Prevalence of bullying in the world

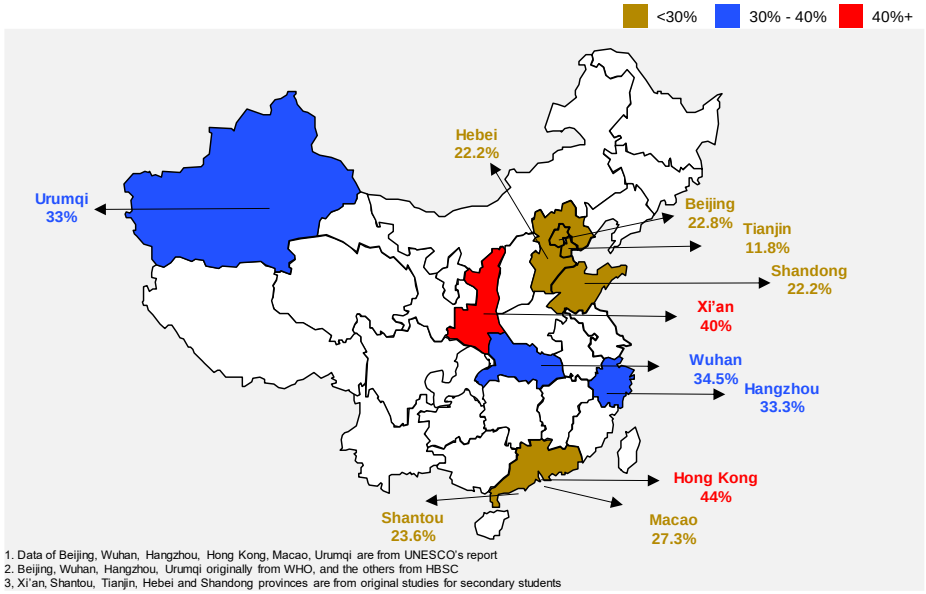


1. Information regarding the prevalence of primarily originates from the GSHS and the HBSC, two global survey managed by WHO and HBSC Consortium
2. The two international surveys mentioned do not gather information on sexual violence perpetrated by peers or physical and sexual violence perpetrated by teachers.

Source: United Nations Educational, Scientific and Cultural Organization (Behind the numbers: Ending School Violence and bullying, report published in 2019)

This issue is on the rise in China as well. Official national statistics are currently unavailable, but certain studies have unveiled the prevalence among students. A nationwide study showed a prevalence of 15% for school bullying among general Chinese adolescents, with 10.89% experiencing bullying and 1.38% engaging in bullying behaviors (Luo et al., 2022). However, the prevalence of bullying incidents may significantly vary in different areas in China due to economic and social development disparities (Han et al., 2017). For instance, studies revealed that the prevalence of bullying among teenagers varied from 19% to 41% depending on the specific sample location and target group (Adams & Hannum, 2018; Cao & Yang, 2018; X. Chen et al., 2017; Chu et al., 2019; H. Hu et al., 2018; H. Jiang et al., 2019; S. Xie et al., 2022; Ye et al., 2016; H. Zhang et al., 2019, 2021; Zhou et al., 2017). In Xi'an, almost 40% of students were engaged in incidents of school bullying, with 3.3% assuming the position of bullies, 21.1% as victims, and 17.6% experiencing both roles as bullies and victims (Wang et al., 2018). The incidence of conventional bullying victimization among high school students in Shantou City was 16.7% (Peng et al., 2022). A survey done in seven regions of China revealed that 25% of urban adolescents reported experiencing bullying (Han et al., 2018). In rural Chinese primary schools, a significantly higher proportion of children (73%) were exposed to bullying (Wang et al., 2022). Data for the overall prevalence in China came from several different sources (Figure 2).

Figure 2. Prevalence of bullying in China



In terms of bullying types, research conducted across different countries has revealed significant variations in the occurrence of traditional bullying. The percentages range from 0.3% to 30% in Europe and 0.5% to 32% in North America (Inchley et al., 2020). Estimates for cyberbullying also exhibit significant variations, ranging from 0.6% to 31% and 3% to 29% (Inchley et al., 2020). In contrast to some Western studies, multiple studies in China continuously show that verbal bullying is the most widespread kind of bullying, followed by relational bullying and physical bullying. Some studies have indicated that cyberbullying involvement is more prevalent when compared to other types of bullying (K. Peng et al., 2019; Xiao et al., 2021).

Factors that influence bullying

The WHO once carried out two significant international surveys, the Global School-based Student Health Survey (GSHS) and the Health Behavior in School-aged Children (HBSC) study, which spanned 144 countries and territories in the world (WHO, 2022). The two surveys have identified various factors that may impact bullying experiences and increase the vulnerability to bullying. The factors are summarized in Table 2

Table 2. Influencing factors of bullying

Influencing factor	Summary
Transgender	• Children identified as transgender face an elevated risk of experiencing bullying.
Gender difference	• Both girls and boys encounter bullying at comparable rates globally. • Males are more prone to experiencing direct physical bullying, whereas females are inclined to engage in direct verbal and indirect bullying. • Boys predominantly serve as perpetrators of direct physical bullying, while girls are more inclined towards engaging in indirect and relational bullying. • Girls are often targeted for bullying based on their physical appearance compared to boys. • Globally, there is no substantial disparity in the occurrence of sexual bullying between girls and boys, but there are regional disparities. • Girls are more frequently subjected to cyberbullying through digital messages, while cyberbullying via digital pictures displays less discrepancy between the sexes.
Age	• As children mature, their likelihood of experiencing peer bullying decreases. • The age disparity is less pronounced concerning engaging in perpetration behavior. • Older children may face an elevated risk of exposure to cyberbullying.
Learning and physical disabilities	• Individuals with physical and learning disabilities exhibit heightened vulnerability to bullying.
Appearance	• Physical appearance emerges as the primary cause of bullying incidents. • Bullying correlates with body dissatisfaction and being overweight.
Ethnics	• According to children's reports, the second most prevalent reason for bullying is associated with factors such as ethnicity, nationality, or skin color.

Table 2. (continued)

Influencing factor	Summary
Socio-economic standing	• There is a correlation between socioeconomic hardship and an increased probability of experiencing bullying. • There is a relationship between how individuals view their own social position and the frequency of cyberbullying.
Immigration standing	• Immigrant children are more susceptible to bullying than their native counterparts.
School Culture	• The presence of a positive school culture has a mitigating effect on the incidence of bullying.
Level of education	• Overall, a higher level of education serves as a protective factor against experiencing bullying.
Family and friends' assistance	• Family support and effective communication play crucial roles as protective factors against bullying.

Factors influencing bystander behavior

Recent research emphasizes the pivotal role of bystander responses in determining the continuation or cessation of bullying incidents (Takami & Haruno, 2019). Among various intervening behaviors, telling the bully to stop and informing an adult emerged as the most robust predictors of positive outcomes (Bauman et al., 2020). Thus, more attention must be paid to understanding the factors influencing bystander behaviors. Several personal and situational factors linked to positive and negative bystander behaviors have been identified by researchers, as illustrated in Table 3. Studies comparing personal and situational factors showed that situational factors significantly impact on individuals (I. Oh & Hazler, 2009; Pozzoli, Gini, et al., 2012).

Table 3. Summary of personal and situational factors influencing positive bystander and negative bystander

Bystander categories	Influencing factors	Type	Source
Positive bystander behaviors	Females	Personal	(Goossens et al., 2006; Menesini et al., 2003; Rock & Baird, 2012; Salmivalli et al., 1996; Summers, 2008)
	Younger students	Personal	(Gini et al., 2008; I. S. Oh, 2010; Pozzoli, Ang, et al., 2012; Rigby & Johnson, 2006)
	Higher social status	Personal	(Forsberg et al., 2014; Salmivalli, 2010)
	Having a friendship with the victim	Situational	(Thornberg et al., 2012)
	Adhering to amoral belief that bullying is wrong	Personal	(Summers, 2008)
	Possessing a heightened sense of school connectedness	Personal	(Summers, 2008)
	Owning a sense of social belonging	Personal	(Summers, 2008; Thornberg et al., 2012)
	Having adults who encourage intervention	Situational	(Thornberg et al., 2012)
Negative bystander behaviors	Fear of becoming a victim	Situational	(Thornberg et al., 2012)
	Prior experiences as a bully or bully- victim	Personal	(I. Oh & Hazler, 2009; Thornberg et al., 2012)
	Disliking the victim or attributing blame to the victim	Situational	(Thornberg et al., 2012)
	Being friends with the bully	Situational	(Chaux, 2005; I. Oh & Hazler, 2009; Thornberg et al., 2012)
	Having perception that intervention is not the bystander's responsibility	Personal	(Thornberg et al., 2012; Wood et al., 2017)
	Lack of knowledge regarding appropriate actions to take	Situational	(Baumanet al., 2020)
	Heightened severity of bullying	Situational	(I. Oh & Hazler, 2009)
	Power imbalance	Situational	(Barhight et al., 2017; Nesdale & Scarlett, 2004; I. Oh & Hazler, 2009; Pronket al., 2013)

In addition to external personal and situational factors, certain psychological factors must be considered as well, particularly those grounded in cognitive theory, since inner elements, including moral sensitivity, self-efficacy, social capital, cognitive distancing, autonomous motivation, sympathy, and empathy can explain the external manifestations. For example, according to a study, a student's higher moral sensitivity to bullying corresponds to an increased likelihood of assisting the victim or intervening to stop bullying (Z. Xie et al., 2023).

Another study found that those with more social capital, which refers to the resources and advantages obtained from connections, experiences, and social interactions, were more likely to behave as active bystanders (Jenkins & Fredrick, 2017). A higher level of cognitive distancing as a coping strategy was associated with an increase in defending behaviors, with some of these relationships moderated by gender (Parris et al., 2020). According to a study, having a self-driven motivation to protect oneself was found to have a positive correlation with engaging in active behaviors and a negative association with engaging in pro-bully and negative behaviors. Moreover, there was a positive correlation between age and higher levels of passive behavior, and lower levels of defensive behavior. However, no gender-related effects were detected (Iotti et al., 2022). A study carried out in China discovered a notable and favorable association between compassion and engaging in aggressive defense actions. This relationship was influenced by individuals' opinions towards bullying (Feng et al., 2022). Furthermore, a study conducted in Sweden found a positive correlation between negative bystander reactions, increased degrees of moral disengagement, and decreased self-efficacy. On the other hand, participating in defensive activities was associated with reduced moral disengagement, heightened self-efficacy, and improved student-student connections in the classroom (Thornberg et al., 2017). In contrast, an Italian study yielded contradictory results, indicating that coping strategies and perceived peer normative pressure exhibited positive associations with actively helping a bullied peer while demonstrating negative relationships with passivity. However, distancing strategies positively correlated with passive bystander behavior (Pozzoli & Gini, 2010).

Bystander behaviors in the cyber world should be considered. Based on a study, those who had directly encountered cyberbullying or were aware of cyberbullying impacting their friends or family members, and at the same time had a strong emotional connection with their parents, were more inclined to take action compared to those who did not have such experiences. Participants who had knowledge of cyberbullying happening on the broader society were inclined to disregard occurrences of cyberbullying. Furthermore, self-perception also has a significant impact on cyberbullying. Individuals who acknowledged themselves as bullies and had favorable attitudes about involvement were more likely to engage in cyberbullying in comparison to those who did not identify as bullies (Panumaporn et al., 2020). A recent study conducted in China found a correlation between being a victim of bullying and an increase in passive bystander actions in both classic bullying and cyberbullying circumstances (S. Jiang et al., 2022).

Correlates of bullying

Consequences of school bullying

Much evidence has indicated that school bullying can lead to four distinct categories of consequences for those involved, including mental health, suicidality and criminality, educational outcomes, and other consequences in adulthood (Armitage, 2021). Bullying may cause 160,000 students to miss school every day due to fear of being bullied (Rettew & Pawlowski, 2022). A loss of 1.5 letter grades because of involvement in bullying during secondary school has also been reported (Juvonen et al., 2011). 3 times more likely to feel like outsiders at school and more than twice as likely to miss school are the effects experienced by victims of frequent bullying compared to those who are not frequently bullied (UNESCO, 2019). In general, the degree of trauma caused by bullying is approximately comparable to a child being removed from their family and may be more severe than other types of child abuse (Copeland et al., 2013; Takizawa et al., 2014).

School bullying and mental health

There is a notable correlation between school bullying and the mental well-being of teenagers. This review will focus on four specific outcomes, including depression, anxiety, suicidal ideation, and sleep quality. Depression is characterized by prolonged periods of low mood, diminished pleasure, and hope, or a decline in interest in activities (WHO, 2023). Anxiety is defined as symptoms of tension, worrisome thoughts, and physiological changes such as increased blood pressure (American Psychological Association, 2023). Suicidal ideation refers to a range of thoughts and preoccupations, including death and suicide (Harmer et al., 2020). Sleep quality is defined by an individual's contentment with all aspects of their sleep encounter (Nelson et al., 2022). The study will discuss findings from two perspectives: Western studies and Chinese studies.

Western Studies. Many Western studies have illustrated a causal relationship between bullying in adolescence and various mental health indicators (McLaughlin & Lambert, 2017). While post-traumatic stress disorder is typically associated with severe life-threatening violence

(Scheeringa et al., 2011), school bullying, although a non-life-threatening issue, demonstrates a significant correlation with a high incidence of mental health disorders (Alvis et al., 2023; Graziano et al., 2019). Typically, school bullying is associated with several psychological issues such as sadness, anxiety, fear, lack of empathy, trauma, suicide, and substance addiction (Ford et al., 2017; Hysing et al., 2021; Y. S. Kim & Leventhal, 2013; Perkins & Graham-Bermann, 2012; Turcotte Benedict et al., 2015).

Current studies have listed various prevalent types of mental health outcomes commonly observed. Research conducted over 30 years in New Zealand, which included a sample size of more than 1,200 kids, discovered a significant correlation between childhood bullying (both as the perpetrator and the victim) and subsequent mental health issues. Among these issues, depression was shown to be the most severe effect (Gibb et al., 2011). A recent meta-analysis study indicated that being a bullying victim significantly correlates with mental health consequences, illustrating causal links with anxiety (Moore et al., 2017). Meanwhile, the behavior of bullying was frequently associated with external issues (Kelly et al., 2015; Menesini & Salmivalli, 2017) and drug use (Kaltiala-Heino et al., 2000; Kelly et al., 2015; Rivers et al., 2009). However, conflicting conclusions also exist; for instance, a study revealed that perpetrators did not experience detrimental mental health consequences (Lin et al., 2020).

Although there is a wealth of evidence on the mental health risks faced by individuals who are victims or perpetrators, there is a noticeable lack of study on how these risks also affect bystanders (Rivers et al., 2009; Werth et al., 2015). Moreover, even among the limited studies that mentioned bullying bystanders and mental health indicators, there is a scarcity of research exploring the factors associated with positive and negative bystanders in greater depth. Furthermore, the conclusions drawn from existing studies are various.

Research conducted in Canada, Taiwan China, and the UK indicated that students who witnessed bullying reported internalizing symptoms and were exposed to other mental health risks (Lambe et al., 2017; Rivers & Noret, 2010, 2013; Wu et al., 2016). The accumulation of negative bystander behavior showed a positive association with aggression and mental symptoms while illustrating a negative correlation with academic results and future optimism. Concurrently, the gathering of active bystander conduct had favorable connections with mental symptoms, academic accomplishment, self-esteem, and future optimism (Evans et al., 2019). Contradictory results could be found as well. A study showed that negative bystander responses to cyberbullying were found to predict specific psychological outcomes, and positive bystander behavior did not show any predictive relationship with mental health outcomes (DeSmet et al., 2019). Interestingly, another Canadian study presented conflicting results, showing that defending may have potential drawbacks for youth. Among boys, they were engaging in defending behavior related to more psychosocial difficulties when compared to boys who solely observed the bullying. This association was less predictable for girls (Lambe et al., 2017).

Chinese studies. Since 2017, there has been an increasing focus on the mental well-being of Chinese adolescents who have experienced bullying. Several recent studies have reached similar conclusions. These studies have revealed that a victim of bullying could lead to various psychological disorders, such as depression (Chu et al., 2019; Q. Wang, 2020; H. Xie & Ngai, 2020), anxiety, suicidal thoughts (Yin et al., 2017), sleep disturbances, and altered cortisol levels (G. Chen et al., 2018). Additionally, there is a notable correlation between perpetration and experiencing these negative mental health outcomes (Su et al., 2019). Research on bystanders and mental health indicators is currently scarce in China. There is a notable absence of exploration into the correlation between the subcategory roles of positive and negative bystanders and psychological outcomes.

Mediator of the relationship between school bullying and mental health

After the relationship is confirmed, mediators deserve to be analyzed for mechanism. In this study, two mediators will be attached importance. Self-efficacy refers to the perceived ability to perform a target behavior and to achieve a goal (Bandura, 1977). Coping styles involve the various methods individuals employ to handle stressors, with relatively consistent traits influencing reactions (Algorani & Gupta, 2023; Seiffge-Krenke & Shulman, 1990).

Specifically, four studies are built to investigate the mediation effect. Lin et al. highlighted the potential role of social support, coping style, and self-efficacy as mediators (Lin et al., 2020). Another study conducted by Chu et al. revealed that rumination levels acted as mediators between bullying victimization and adolescent depression (Chu et al., 2019). Furthermore, Zhou et al. also found that resilience significantly mediated role in

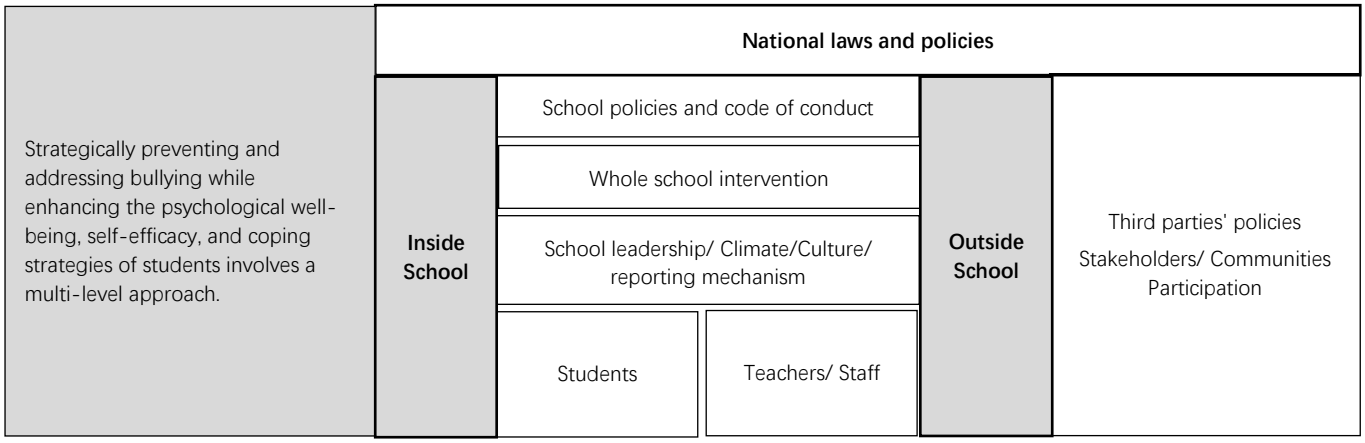
this context (Zhou et al., 2017). Likewise, Yin et al. emphasized the vital mediating effects of social support and active coping in understanding the outcomes (Yin et al., 2017). Moreover, two studies were selected to see the relationship between bullying victimization and self-harm behavior. According to Li et al., adolescents' psychological problems were identified as critical mediating factors between bullying victimization and self-harm behavior (Li et al., 2020). On the other hand, Ran et al. highlighted the critical mediator role of resilience, which enhanced emotion regulation abilities and fostered social support to mitigate self-harm tendencies resulting from bullying (Ran et al., 2020).

Bullying prevention

Preventing school bullying is the goal of most studies. In the past, bullying was regarded as just a normal part of childhood, which could not be avoided and would eventually disappear as students grew old (Winterson, 2012). However, we now recognize its significant and lasting influence on children's well-being. This understanding elevated bullying to a crucial worldwide public health concern. Across different regions and cultural norms, it was evident that parents and peer support could act as preventive measures against victimization regardless of socioeconomic status (Biswas et al., 2020). Implementing structured intervention plans was also recognized as a practical approach to addressing bullying and its related issues. The existing evidence demonstrates that effective programs of interventions for both the prevention and addressing of school violence can reduce these issues by approximately 15-23% (Gaffney et al., 2019).

Drawing on best practices, we found that integrative actions encompassed enhancing school leadership, cultivating a secure and inclusive school atmosphere, developing knowledge, attitudes, and abilities, establishing effective collaborations, implementing reporting systems, offering suitable support and services, and gathering and utilizing evidence (Unicef, 2020). The entire structure of intervention in society can be described in Figure 3.

Figure 3. Diagram of intervention structure in the whole society



The school-based intervention has been proven effective and successful in preventing bullying behaviors. One such approach, Whole-school strategies, showed superior and potentially improved outcomes. It included multiple disciplines and the active participation of school staff (Goldberg et al., 2019). Unfortunately, according to existing studies, interventions solely relying on academics or skills training may not be effective and could even worsen bullying (Vreeman & Carroll, 2007). Therefore, comprehensive and multi-level anti-bullying interventions should be considered. What kind of specific actions or methods are prepared for school managers? There are several examples. Cooperative learning that includes structured group activities and proactive interaction among students is becoming a popular choice to prevent violence while improving student engagement in safe culture establishment and academic achievement (Van Ryzin & Roseth, 2018). At the same time, establishing school-based health centers is another good way to address bullying by providing accessible medical and mental health care (Arenson et al., 2019). Besides, equipping students with intervention strategies to act as defenders is extremely important to those bystanders who are the most prevalent (Midgett et al., 2022). Furthermore, technology programs should also be used to improve accessibility and scalability (Midgett et al., 2022). Suggestions for pipeline prevention actions are briefly listed in Table 4.

Olweus Bullying Prevention Program (OBPP) which was

created by Dan Olweus, the pioneer in this field, is widely accepted to decrease bullying incidence and improve mental health (Olweus, 1993). However, studies on the effectiveness of OBPP have produced inconsistent results across different cultures (Ferguson et al., 2007; Merrell et al., 2008; Olweus & Limber, 2010). Therefore, it is crucial to know there is no easy and quick solution, and we should not rely on a single approach to eradicate bullying entirely. School bullying prevention is a complicated and multifaceted issue that needs lots of relevant stakeholder involvement and tailored strategies to meet the specific needs of each school and community. Additionally, continuous evaluation and refinement of prevention efforts are critical to ensure effectiveness over time.

Table 4. Summary of Intervention Actions

Main Points	Intervention Actions	References
School Staff	Train health professionals to recognize and manage childhood bullying and provide necessary resources for prompt identification, management, and timely referrals.	(Gaffney et al., 2021; Waasdorpet al., 2021)
Parents and Peers	Emphasize parental and peer support to prevent bullying in families and schools.	(Gaffney et al., 2021; Van Niejenhuis et al., 2020)
Curriculums	Implement comprehensive school-wide cooperative learning strategies to reduce instances of bullying in educational environments.	(Keating & Collins, 2021)
Students	Improve coping style and self-efficacy of students.	(Yang & Gao, 2023)
Evidence-based	Implement evidence-based interventions to tackle both cyberbullying and traditional bullying.	(Gregus et al., 2020)
Third parties	Enhance the understanding of communities, social organizations, and primary care providers on the many forms of bullying and its detrimental effects.	(Armitage, 2021)
Mechanisms to report	Establish mechanisms to report school violence and bullying	(Novick & Isaacs, 2010)
Leadership	Strengthen leadership and commitment to eliminating violence	(Bosworth et al., 2018)

Conclusions and Recommendations

To our knowledge, this review represents an extensive and updated examination of the fundamentals of school bullying and its correlates. Numerous studies utilize three key components defining bullying: power imbalance, intentional violence, and continuous and repeated behaviors, which acknowledge the influential research conducted by Olweus. Nonetheless, due to the subjective descriptions, the prevalence rates differ significantly among countries and locations. Overall, it is estimated that the lowest level is around 30% (UNESCO, 2019). Though cyberbullying is receiving more and more scientific attention as social media becomes more integrated into people's lives, traditional bullying, especially physical bullying that occurs in school settings, remains the most prevalent type (UNESCO, 2019). Meanwhile, bullying is easily recognizable in elementary school, but it peaks throughout the middle school years and adolescence, emphasizing the crucial age that requires our attention. The remaining part of the review is organized by a structure based on a three-level causality (factors impacting bullying=>roles in bullying=>consequences of bullying), which is synthesized from selected papers. Understanding how impacting factors lead to the behaviors of each bullying role is very meaningful in preventing and intervening in bullying before it occurs. Examining what consequences are may contribute to resolving the situation after it occurs. Although there are numerous conflicting and debated perspectives, consensus never stops moving forward with the pursuit of better days for children.

Unlike the previous review, apart from synthesizing critical aspects of the traditional classification of bully and victim, this study attaches importance to the bystander, who plays the pivotal figure in stopping bullying (Waasdorp et al., 2022). To our knowledge, this is the first review systematically comparing factors associated with positive bystanders and negative bystanders along with perpetrator and victim. Considering the volume of literature, the level of concern decreases in the following order: from bullying victim to bullying perpetrator to bullying bystander. There are limited studies that specifically examine different types of bystanders. Meanwhile, there is a scarcity of research on the mental health outcomes of bystander subgroups. Identifying potentially more significant subtypes is progressing at a modest pace. Hence, the inclusion of such distinctive categories for bullies and victims in adolescence carries

significant implications for forthcoming research studies and intervention actions.

There are several limitations to this review. Firstly, bias cannot be eliminated since it is not a systematic review. Web of Science and Scopus offer a wide range of options for searching related to keywords, making it more thorough than other sources. It is possible that essential articles may be overlooked during the process. In other words, if the author did not explicitly describe the related outcomes and predictors in the abstract, it is unlikely that we will include them. Secondly, most of the selected studies employ a cross-sectional approach. As a result, the causal relationship and time sequence cannot be determined. More longitudinal and intervention studies should be incorporated. Thirdly, using different definitions and various measurement instruments for bullying and its outcomes renders the comparison of prevalence lacking in significance. To mitigate this issue, we analyzed trustworthy authoritative data sources and filled in the figures and tables for this review. Fourthly, to some extent, this review covers a wide range of themes but lacks the necessary depth of analysis. A more targeted systematic review can be conducted in bystander subcategories.

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