

The Double-Edged Sword Effect of Bullying Protective Behaviors on Victims' Psychosocial Adaptation and Its Mechanisms

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Abstract

In bullying incidents, bystanders' supportive and protective behaviors toward victims hold significant importance. Existing research has primarily focused on the influencing factors and positive effects of bullying protection behaviors, yet a comprehensive understanding of their negative effects on victims remains lacking. Based on the nature and style of bullying protection behaviors, this paper proposes a four-type structure of bullying protection behaviors and reviews both the positive and negative effects of such behaviors on victims' psychosocial adaptation. Then, drawing upon the General Aggression Model, this paper proposes the mechanism underlying the double-edged sword effect of bullying protection behaviors from the perspectives of victims' cognition, emotion, and their interaction. Finally, this paper suggests that future research should explore the intervention effects of different forms of bullying protection behaviors, investigate the mechanisms of the double-edged sword effect, identify pathways to mitigate negative effects, and examine the behavioral consequences of victims and bystanders within social networks.

Full Text

The Double-Edged Sword Effect of Defending Behavior on Victims' Psychosocial Adjustment and Its Underlying Mechanisms

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Abstract: In bullying incidents, bystander behaviors that support and defend victims play a significant role. While existing research has primarily focused on the influencing factors and positive effects of defending behavior, there remains a lack of comprehensive understanding regarding its negative effects on victims. Based on the nature and style of defending behavior, this paper proposes a four-type structure of defending behaviors and systematically reviews both their positive and negative effects on victims' psychosocial adjustment. Drawing upon the General Aggression Model, we propose a theoretical framework explaining the double-edged sword effect of defending behavior through cognitive, emotional, and interactive pathways. Finally, we suggest that future research should explore the intervention effects of different forms of defending behavior, clarify the mechanisms underlying the double-edged sword effect, identify pathways to mitigate negative effects, and investigate the behavioral consequences for both victims and bystanders within social networks.

Keywords: defending behavior, psychosocial adjustment, General Aggression Model, double-edged sword effect

Classification Number: G44:445

Bullying refers to the repeated intentional harm inflicted by an individual against a weaker party, encompassing physical bullying (e.g., hitting others), verbal bullying (e.g., insulting others), and relational bullying (e.g., spreading rumors) \cite{Gladden_{{et}}_{{al}}}{2014}. Bullying is highly prevalent among children and adolescents. According to UNESCO survey data, nearly one-third of adolescents aged 9–15 worldwide reported experiencing at least one form of bullying in the past month \cite{UNESCO_{{2019}}}. Bullying incidents not only directly impair the physical and mental health of both victims and bullies, increasing risks of depression, loneliness, and suicide \cite{Peprah_{{et}}_{{al}}}{2023}, Wei_{{et}}_{{al}}}{2024}, but also significantly negatively impact bystanders' psychological states \cite{Duan_{{et}}_{{al}}}{2020}. Consequently, bullying prevention and intervention have become important concerns for both society and academia.

Bullying is a group phenomenon that typically occurs in the presence of bystanders. Bystanders' behavioral responses influence the development of bullying episodes, and bystander defending behavior—defined as actions supporting or protecting victims—is considered effective in reducing the negative impact of bullying on victims' psychosocial adjustment \cite{Meter_{{et}}_{{al}}}{2024}, Salmivalli_{{et}}_{{al}}}{2021}. Accordingly, numerous anti-bullying intervention programs, such as KiVa and Media Heroes, have prioritized enhancing adolescents' defending behavior as a

core component \cite{Gaffney_{et al}}{2021}}.

However, recent empirical findings have challenged the positive effects of defending behavior. For instance, one study examining the effectiveness of support group interventions found that at the end of the school year, victims participating in support groups reported significantly more defending behaviors than the control group, yet nearly 40% of these victims indicated that their victimization levels had not decreased or had even worsened compared to the initial intervention period, while victimization levels in the control group decreased significantly \cite{van der Ploeg_{et al}}{2016}}. This suggests that defending behavior does not necessarily reduce victimization levels. Inconsistent findings may stem from variations in conceptual definitions and operationalizations of defending behavior across studies, as well as an overemphasis on its positive effects while neglecting its negative impacts on victims' psychological adjustment (e.g., internalizing problems) and social adjustment (e.g., continued victimization). Therefore, a systematic review of the double-edged sword effect of defending behavior on victims' psychosocial adjustment and its underlying mechanisms is necessary to integrate divergent findings and inspire future research.

This paper systematically reviews research on the effects of defending behavior on victims' psychosocial adjustment to address whether and why defending behavior is effective, thereby providing insights for future research and enhancing intervention program effectiveness. Specifically, we propose a structural framework for defending behavior based on a systematic review of its connotation, examine the double-edged sword effect on victims' psychosocial adjustment, and elucidate the underlying mechanisms. Finally, we propose directions for future research.

2. Connotation and Structure of Defending Behavior

Although defending behavior has attracted increasing research attention, operational definitions remain inconsistent across studies. Before elaborating on the double-edged sword effect, we first clarify the connotation and structure of defending behavior.

2.1 Connotation of Defending Behavior

Defending behavior refers to all actions by bystanders aimed at helping victims during bullying incidents, including directly 劝阻 ing bullies, comforting victims, and seeking help from adults; bystanders who engage in such behaviors are called defenders \cite{Lambe_{Craig}}{2020}}, *Salmivalli*{et al}}{1996}}. Overall, the concept of defending behavior has evolved from a unidimensional to a multidimensional framework. Early researchers typically viewed defending behavior as a unidimensional prosocial behavior, assuming that all forms shared the same nature and motivation—namely, to help victims or stop bullying. Consequently, measurement instru-

ments used total or average scores across all items to represent individuals' defending levels \cite{Kollerová_{et al}}{2018}}.

As research progressed, scholars recognized the heterogeneity of defending behavior and understood it as a multidimensional prosocial behavior with varying influencing factors and behavioral consequences \cite{Lambe_{Craig}}{2020}}, Wang_{et al}}{2023}}. Although consensus on its dimensional structure remains elusive, researchers agree on its multidimensional nature. For example, some distinguish between direct and indirect defending, where direct defending involves confronting bullies to stop bullying (e.g., verbally 劝阻 ing or physically attacking bullies), while indirect defending involves helping victims without directly confronting bullies (e.g., comforting victims or reporting to teachers) \cite{Pronk_{et al}}{2020}}. Others propose three dimensions: comforting victims, confronting bullies, and reporting to third parties \cite{Jenkins_{et al}}{2023}}, Brehmer_{Meyer}}_{2024}}.

Furthermore, some researchers recognize that defending behavior possesses both prosocial and aggressive characteristics, distinguishing between constructive defending and aggressive defending \cite{Luo_{Bussey}}{2019}}, Moxey_{Bussey}}{2020}}. *Constructive defending involves prosocial interventions such as comforting victims or reporting to teachers, whereas aggressive defending involves attacking bullies or spreading rumors about them. Research indicates that constructive defending is associated with improved victim emotions and reduced self-blame* \cite{Laninga-Wijnen_{Pouwels}}{et al}}{2024}}}, while aggressive defending is widely believed to exacerbate bullying \cite{Bussey_{et al}}{2020}}, Healy_{2020}}. Notably, constructive defending is defined based on behavioral strategies and intentions rather than presumed outcomes. For instance, prosocial behavior is defined as behavior intended to benefit others, not assumed to produce positive effects \cite{Pfattheicher_{et al}}{2022}}. Studies have found that constructive defending, such as comforting victims, can negatively impact victims' psychosocial adjustment when it leads to co-rumination \cite{Schacter_{Juvonen}}_{2020}}. Therefore, constructive defending does not presuppose positive outcomes. Based on this analysis, we define defending behavior as bystanders' actions to help victims during bullying incidents, which may manifest constructively (e.g., comforting victims or seeking adult help) or aggressively (e.g., attacking bullies).

2.2 Structure of Defending Behavior

Current research has proposed various structures based on different criteria. Some researchers classify defending behavior into direct and indirect dimensions based on whether defenders directly confront the bullying situation. Direct defending, such as 劝阻 ing bullies, is associated with higher popularity, while indirect defending, such as comforting victims, is associated with greater social acceptance \cite{Lambe_{Craig}}{2020}}, Pronk_{et al}}{2020}}.

For example, Lambe and Craig developed the Defending Behaviors Scale based on multidimensional prosocial behavior theory, comprising four dimensions: aggressive defending, problem-solving, reporting to authorities, and comforting victims, with the first two categorized as direct defending and the latter two as indirect defending. Chinese researchers using Chinese adolescent samples identified an additional unique indirect defending dimension—tactical defending—which involves using specific strategies to protect victims without directly confronting bullies, such as shouting “Teacher is coming!” to scare bullies away \cite{Wang_{{et}}_{{al}}_{{2023}}}. While the direct/indirect distinction is widely used, it fails to differentiate aggressive defending precisely. Research shows that aggressive defending can be further divided into direct aggression (e.g., insulting bullies) and indirect aggression (e.g., spreading rumors), which exhibit different associations with other variables (e.g., direct defending) \cite{Meter_{{et}}_{{al}}_{{2019}}}.

Other researchers propose that defending behavior comprises constructive and aggressive styles \cite{Steinvik_{{et}}_{{al}}_{{2025}}}. Although both strategies aim to help victims, aggressive defending also involves retaliating against bullies’ deviant behavior and can be considered a form of bullying directed at bullies, often viewed as a maladaptive coping strategy associated with escalating bullying \cite{Bussey_{{et}}_{{al}}_{{2020}}}. Research indicates that aggressive defenders exhibit higher victimization levels and depressive symptoms compared to other defender types \cite{Jin_{{et}}_{{al}}_{{2024}}}. Constructive and aggressive defending show inverse associations with moral disengagement \cite{Moxey_{{Bussey}}_{{2020}}}. While the constructive/aggressive classification is theoretically and empirically supported, it inadequately distinguishes constructive defending subtypes. Constructive defending can be further divided into direct constructive defending (e.g., assertively stopping bullies) and indirect constructive defending (e.g., comforting victims), which may involve different intervention risks and benefits.

Integrating previous research and our own perspectives, we propose that defending behavior can be classified into four types: direct constructive defending, indirect constructive defending, direct aggressive defending, and indirect aggressive defending. Table 1 presents the definitions, behavioral characteristics, and motivations for each type. This distinction holds important theoretical and practical significance. Theoretically, previous studies have isolated direct/indirect or constructive/aggressive classifications, failing to capture fine-grained differences among the four types. Generally, direct defending and aggressive defending entail greater risks than indirect defending and constructive defending \cite{Tian_{{et}}_{{al}}_{{2025}}}. Consequently, different defending forms may yield varying risks and benefits for victims. Practically, our proposed structure facilitates rapid identification of defending behavior types and provides references for developing effective intervention strategies.

Given the current lack of multidimensional research examining defending behavior’ s effects on victims’ psychosocial adjustment, the following discussion does

not differentiate among types. However, based on theoretical and empirical evidence, future research should investigate differential impacts and mechanisms of various defending types using our classification framework, which we will address in the future directions section.

3. The Double-Edged Sword Effect of Defending Behavior

Existing research on defending behavior's impact has primarily focused on two aspects: effects on victims' psychological adjustment and effects on future victimization risk. Accordingly, we review the double-edged sword effect from these two perspectives.

3.1 Positive Effects of Defending Behavior

Overall, positive effects manifest in enhancing victims' psychological adjustment and reducing future victimization risk.

First, defending behavior positively impacts victims' psychological adjustment. The resilience framework theory posits that resilience is a psychological resource that helps individuals actively cope with adversities such as bullying, protecting them from maintaining good psychological states when facing difficulties \cite{Luthar_{{et}}_{{al}}_{{2000}}}. Resilience is dynamic, influenced by the interaction between perceived external support and personal capabilities \cite{Luthar_{{et}}_{{al}}_{{2000}}}. In bullying situations, defending behavior conveys peer group opposition to bullying and concern for victims, thereby enhancing victims' resilience and reducing bullying's negative impact on psychological adjustment. Social support buffering theories also suggest that defending behavior reduces victims' experienced harm; even when bullying persists, defenders' comfort or direct intervention can buffer psychological distress \cite{Cohen_{{Wills}}_{{1985}}}.

Empirical studies find that defended victims exhibit lower risks of psychological adjustment problems such as depression, social anxiety, and loneliness compared to undefended victims \cite{Ma_{{Chen}}_{{2019}}}. *Moreover, these positive effects are not transient. Longitudinal research shows that victims defended at least once at the beginning of a semester report higher school belonging at semester's end \cite{Laninga-Wijnen_{{et}}_{{al}}_{{2023}}}. Higher school belonging is associated with greater psychological well-being \cite{Arslan_{{Allen}}_{{2021}}}, better academic performance \cite{Huang_{{2022}}}, and lower truancy rates \cite{Chen_{{et}}_{{al}}_{{2023}}}. Qualitative studies also reveal positive effects: nearly one-third of adolescents reported that defending behavior effectively improves victims' negative emotions \cite{Bauman_{{et}}_{{al}}_{{2020}}}, and interviews with 24 children found that peer support and encouragement fostered positive changes such as reduced loneliness and enhanced security \cite{Heitmann_{{et}}_{{al}}_{{2024}}}. Research not only identifies significant differences in psychological adjustment between defended and undefended*

victims but also shows that victims experience lower self-blame and better psychological adjustment when defended compared to when not defended \cite{Laninga-Wijnen_{{Pouwels}}_{{et}}_{{al}}_{{2024}}}.

Second, defending behavior helps reduce victims' future victimization risk. Social protect theory suggests that bullies select easy targets, such as vulnerable individuals lacking protection; when victims have defenders, bullies cease bullying and avoid targeting protected individuals \cite{Hodges_{{Perry}}_{{1999}}}. *Empirical research supports this view. A recent study found that peer defending, particularly direct victim protection, effectively stopped half of ongoing bullying episodes* \cite{Bauman_{{et}}_{{al}}_{{2020}}}. Longitudinal research also shows that bullying incidence decreases over time in classrooms with high defending behavior levels \cite{Nocentini_{{et}}_{{al}}_{{2013}}}. Intervention program evaluations provide stronger evidence: studies examining the KiVa anti-bullying program, which aims to enhance defending behavior, found lower victimization levels in schools implementing the program compared to non-implementing schools \cite{Bowes_{{et}}_{{al}}_{{2024}}, Huising_{{et}}_{{al}}_{{2020}}}.

3.2 Negative Effects of Defending Behavior

Despite theoretical and some empirical evidence supporting defending behavior's positive effects, recent studies reveal that it does not always benefit victims. Regarding psychological adjustment, theoretical and empirical evidence indicates that defending behavior's positive effects may be limited or even harmful. For example, prosocial behavior research shows that helping can create psychological dilemmas for recipients, such as low-effectiveness help reducing recipients' self-worth \cite{Li_{{Chen}}_{{2025}}}. *A recent review systematically examined pathways through which prosocial behavior negatively impacts recipients' psychological adjustment, proposing that different forms of prosocial behavior, such as dependency-oriented help, may generate negative cognitions (e.g., perceiving oneself as disadvantaged, attributing helpers' motives to self-interest), leading to negative emotions* \cite{姜宇_谢晓非_{{2024}}}.

More importantly, bullying research demonstrates that defending behavior can negatively affect victims' psychosocial adjustment. The "healthy context paradox" phenomenon provides evidence: in healthy classroom environments (e.g., low class-level victimization or high average defending behavior), victims exhibit more severe psychological adjustment problems \cite{刘晓薇等_{{2021}}, Dong_{{et}}_{{al}}_{{2024}}, Laninga-Wijnen_{{et}}_{{al}}_{{2021}}}. This suggests that increasing class-level defending behavior may negatively impact chronically victimized students' psychological adjustment. Additionally, one review proposed three pathways through which defending behavior may harm victims' psychological adjustment: triggering more bullying, reducing victims' sense of autonomy, or undermining victims' peer support networks \cite{Healy_{{2020}}}. Empirical studies also show negative effects: peer emotional support predicts higher depression levels among victims

\cite{Desjardins_{{Leadbeater}}_{{2011}}}. These negative effects are influenced by the relationship between defenders and victims and the type of defending behavior. In cyberspace, when defenders are strangers, adolescents perceive aggressive defending as harmful to victims; when defenders are friends, both aggressive and constructive defending are perceived as effective \cite{Leduc_{{et}}_{{al}}_{{2024}}}.

Regarding social adjustment, defending behavior may sometimes increase victimization levels. Healy suggested that defending behavior can intensify bullying when defenders intervene maladaptively by attacking bullies, potentially reinforcing or triggering bullies' aggressive behavior. A meta-analysis comparing different anti-bullying intervention strategies found that peer participation interventions (e.g., encouraging students to defend victims) actually increased subsequent victimization rates \cite{Ttoli_{{Farrington}}_{{2011}}}.

3.3 Explaining the Double-Edged Sword Effect

While bullying intervention theories emphasize defending behavior's positive effects on victims' psychosocial adjustment, empirical studies show that under certain conditions, defending behavior also negatively impacts victims' psychosocial adjustment. This discrepancy may arise because previous research has largely treated defending behavior as a unidimensional prosocial behavior and focused on its positive effects \cite{Laniga-Wijnen_{{et}}_{{al}}_{{2023}}, Ma_{{Chen}}_{{2019}}}, while neglecting its multidimensional nature. Different forms of defending behavior may have differential effects on victims' psychosocial adjustment \cite{Lamb_{{et}}_{{al}}_{{2024}}}, particularly since defending behavior possesses both prosocial and aggressive characteristics. Most studies have overlooked aggressive defending, potentially masking negative effects. Based on literature review, we propose that defending behavior can be categorized into four types based on form and style, which will help future research investigate differential impacts on victims' psychosocial adjustment.

Second, inconsistent results may stem from asymmetric perceptions between victims and defenders regarding the effectiveness of different defending forms. Prosocial behavior research shows that helpers and recipients have inconsistent perceptions regarding the likelihood and quality of help, termed asymmetric perception \cite{Wang_{{et}}_{{al}}_{{2019}}}. Such asymmetric perceptions may explain why prosocial behavior negatively impacts recipients \cite{Liang_{{et}}_{{al}}_{{2024}}}. In bullying situations, defenders and victims may also perceive the effectiveness of different defending strategies differently. Indeed, studies show that bystanders consider social support provision the most effective strategy, with attacking bullies (e.g., angrily demanding cessation) more effective than off-campus communication with victims \cite{Lamb_{{et}}_{{al}}_{{2024}}}. However, victims perceive strategies that calm their emotions or resolve bullying as more effective than retaliating against bullies or amplifying their anger \cite{Strong_{{et}}_{{al}}_{{2022}}}. Thus, defenders' perceived effective strategies may not meet victims' needs, negatively impacting victims'

psychosocial adjustment.

More importantly, previous research has predominantly used positive perspectives, such as social support buffering theory and resilience theory, to explain defending behavior's positive effects, but these theories inadequately explain its negative effects. Therefore, a unified theory is needed to clarify the theoretical framework of the double-edged sword effect. Prosocial behavior research shows that the impact on recipients depends on their cognitions about the help, with different attributions for helping intentions producing differential emotional adjustment outcomes \cite{Gao_X_{et al}}{2024}. Thus, victims' cognitions about defending behavior represent a crucial psychological mechanism \cite{Laniga-Wijnen_{Pouwels}}{et al}}{2024}. We introduce the General Aggression Model to explain the double-edged sword effect of defending behavior on victims' psychosocial adjustment from cognitive, emotional, and interactive perspectives.

4.1 Defending Behavior Within the General Aggression Model Framework

The General Aggression Model proposes that personal and situational inputs influence individuals' internal states (cognition, affect, and their interaction), which indirectly affect evaluation and decision-making processes, thereby influencing aggressive behavior \cite{Anderson_{Bushman}}{2002}. *Researchers have applied this theory to explain cyberbullying's impact on victims' psychosocial adjustment* \cite{Kowalski_{et al}}{2014}. According to this theory, received defending behavior represents an input for victims, influencing their internal psychological states (cognition, affect, and their interaction) and consequently affecting their psychosocial adjustment \cite{Kowalski_{et al}}{2014}. We therefore conceptualize victims' perceived defending behaviors as inputs that influence their cognition, affect, and their interaction, thereby indirectly impacting psychosocial adjustment. The interaction between cognition and affect manifests in two ways. On one hand, cognition influences affect: victims attribute defenders' behaviors, bullying resolution, and responsibility, with positive attributions generating positive affect and negative attributions generating negative affect. On the other hand, affect influences cognition: victims' emotions affect their cognitive processing, including attribution direction. Positive emotions promote positive interpretations of bullying events, whereas negative emotions promote negative attributions (see Figure 1 [Figure 1: see original paper]).

4.2 Pathways Through Which Defending Behavior Affects Victims' Psychosocial Adjustment

Defending behavior may differentially impact victims' psychosocial adjustment by eliciting positive or negative cognitions. First, victims may attribute defenders' behavioral motivations, with different attributions leading to different

psychosocial outcomes. Specifically, when recipients perceive helpers as acting from self-interest rather than empathy, they experience negative emotions \cite{Erlandsson_{{et}}_{{al}}_{{2020}}, Raihani_{{Power}}_{{2021}}}. *Particularly when helpers provide strategic help—acting from personal motives—recipients attribute helping intentions to self-interest, generating negative emotions such as indebtedness, obligation to reciprocate, and lower self-esteem* \cite{Gao_X_{{et}}_{{al}}_{{2024}}, Lee_{{et}}_{{al}}_{{2023}}}. Conversely, perceiving altruistic intentions generates positive emotions like gratitude \cite{Gao_X_{{et}}_{{al}}_{{2024}}}. In bullying situations, different motivations drive different defending forms. For example, defenders with agentic goals—seeking to gain or maintain influential social status—tend to adopt direct defending such as attacking bullies, whereas those with communal goals—genuinely caring about victims’ well-being and maintaining harmonious peer relationships—tend to implement indirect defending such as comforting victims \cite{Pronk_{{et}}_{{al}}_{{2019}}}. Thus, different defending strategies may originate from different motivations. Victims who interpret direct aggressive defending as status-seeking may experience indebtedness or loss of autonomy \cite{Healy_{{2020}}}, negatively impacting their psychosocial adjustment. Victims who attribute indirect constructive defending to genuine concern may feel gratitude, producing positive effects.

Second, victims may attribute causality for bullying events. Based on attribution theory \cite{Weiner_{{1985}}}, victims attribute bullying along three dimensions: stability (whether bullying is stable and unchangeable), locus (whether bullying occurrence and resolution depend on internal or external factors), and controllability (whether bullying is controllable). Healy proposed that peer defending, such as direct constructive defending, may lead victims to make external, stable, and uncontrollable attributions about bullying resolution—believing they cannot resolve bullying independently, that bullying is stable and unchangeable, and that they must rely on bystander intervention, thereby generating helplessness. Additionally, in classrooms with high defending behavior levels, victims exhibit higher self-blame attribution and more psychological problems. This may be because in healthy classroom environments with high defending behavior, chronically victimized students attribute bullying to stable, uncontrollable factors—believing their victimization will persist and cannot be changed \cite{Laniga-Wijnen_{{Garandau}}_{{et}}_{{al}}_{{2024}}}. *Victims may also make external attributions for their victimization due to being defended. Both direct constructive defending (targeting bullies) and indirect constructive defending (targeting victims) signal that others disapprove of bullying, leading victims to perceive that victimization is not their fault, thereby reducing self-blame and emotional problem risk* \cite{Laniga-Wijnen_{{Pouwels}}_{{et}}_{{al}}_{{2024}}}.

Based on the General Aggression Model, another pathway for the differential impact involves affect \cite{Kowalski_{{et}}_{{al}}_{{2014}}}. Specifically, when victims experience negative emotions such as indebtedness from being defended, negative psychosocial outcomes may result; positive emotions such

as gratitude may produce positive effects. Indebtedness is a negative emotional experience of needing to reciprocate help, associated with higher stress, tension, and lower subjective well-being \cite{Peng_{{et}}_{{al}}_{{2018}}, Zhang_{{et}}_{{al}}_{{2024}}}. According to equity theory, defending behavior—especially direct constructive defending—creates an inequitable relationship between defenders and victims. Victims perceive an obligation to reciprocate, and if they feel unable to do so, this indebtedness leads to negative emotions like low self-esteem \cite{Healy_{{2020}}}. Conversely, when victims feel gratitude—a positive emotion associated with better interpersonal relationships and autonomous prosocial motivation \cite{Algoe_{{et}}_{{al}}_{{2013}}—positive psychosocial outcomes result. Thus, defending behavior may produce a double-edged sword effect through different emotional pathways.

Furthermore, the double-edged sword effect may stem from the interaction between cognition and affect. Victims' attributions about defenders' motivations may generate differential emotions, thereby producing divergent psychosocial outcomes. One study using large-scale questionnaires, computational modeling, and neuroimaging found that recipients who perceived help as genuinely caring felt gratitude, whereas those who perceived self-interested motives felt indebtedness \cite{Gao_X_{{et}}_{{al}}_{{2024}}}. Experimental research also shows that perceiving autonomous helping motivation enhances recipients' gratitude, increasing their prosocial behavior \cite{Yang_{{et}}_{{al}}_{{2024}}}. Additionally, victims' emotions can influence their cognition. Based on the broaden-and-build theory of positive emotions \cite{Fredrickson_{{2001}}}, affect influences cognitive processing: positive emotions broaden cognitive scope and promote positive attributions \cite{Ali_{{Rizwan}}_{{2018}}}, *whereas negative emotions narrow cognition and cause attribution biases. For example, victims who feel gratitude may interpret their world positively* \cite{Watkin_{{2014}}, Zeng_{{et}}_{{al}}_{{2020}}}, viewing defending behavior as sincere help, believing bullying is unstable and changeable, and that victimization is not their fault. Conversely, negative emotions like indebtedness or insecurity may lead to negative attributions, such as believing defenders have ulterior motives, differentially impacting psychosocial adjustment. Thus, defending behavior may affect victims' psychosocial adjustment not only through separate cognitive or affective pathways but also through cognitive-affective and affective-cognitive interactive pathways.

5. Future Research Directions and Outlook

Existing school bullying intervention research has emphasized leveraging defenders' positive roles \cite{任萍_等_{{2018}}}, providing insights for bullying interventions. However, as research deepens, scholars recognize the double-edged sword effect of defending behavior on victims' psychosocial adjustment, prompting comprehensive examination of its heterogeneous effects. This paper summarizes the double-edged sword effect and, based on the General Aggression Model, proposes that different defending forms serve as inputs influencing vic-

tims' cognition, affect, and their interaction, leading to different psychosocial adjustment outcomes. Our theoretical model helps resolve previous research discrepancies by comprehensively presenting the double-edged sword effect and its mechanisms, and enhances intervention effectiveness. For example, based on this model, the limited effectiveness of existing interventions may stem from neglecting defending behavior' s negative effects. Future interventions should pursue dual goals: enhancing defending behavior levels while avoiding adverse effects on victims' psychosocial adjustment.

Although bullying intervention scholars have begun examining defending behavior' s impact on victims' psychosocial adjustment, this field remains in its infancy with numerous questions warranting exploration. Based on limitations in research perspectives, mechanisms, and methodologies, we elaborate on specific directions for future research.

5.1 From Positive to Neutral: Exploring Intervention Effects of Different Defending Forms

Previous research has not unified the concept of defending behavior and has been limited to positive perspectives, treating it as unidimensional prosocial behavior while ignoring its aggressive manifestations, leading to inconsistent findings \cite{Lamb_{{et}}_{{al}}_{{2024}}, Ma_{{Chen}}_{{2019}}}. Therefore, from a neutral perspective and building on previous literature, we propose a four-dimensional framework comprising direct defending, indirect defending, direct aggression, and indirect aggression. This structure accounts for both the aggressive and prosocial nature of defending behavior while considering directness and indirectness, helping reveal the dual effects of different forms on victims' psychosocial adjustment. Future research should validate this proposed structure.

Future studies should investigate differential effects of various defending forms on victims' psychosocial adjustment. Specifically, research should compare the impacts of direct constructive defending, indirect constructive defending, direct aggressive defending, and indirect aggressive defending. For victims, the risks and benefits of receiving different defending types may vary. One study from peer victimization victims' perspective found that direct and indirect constructive defending were more effective than retaliatory attacks in enhancing victims' well-being \cite{Strong_{{et}}_{{al}}_{{2022}}}. Future research should further examine how the four defending strategies differentially affect victims' cognition and affect from victims' perspectives.

Additionally, future research should combine victim and defender perspectives to compare perceptions of the four strategies' effectiveness. Previous research has assumed that defending behavior' s positive effects converge for victims and defenders, neglecting potential cognitive and affective differences. As noted, helpers and recipients have perceptual differences regarding help likelihood and quality \cite{王逸璐_谢晓非_{{2019}}}, which may cause recipients' psychological

dilemmas \cite{姜宇_谢晓非_{2024}}. Future studies should examine perceptual differences between victims and defenders regarding different defending strategies' effectiveness. This exploration will help reveal the roots of defending behavior' s negative effects and provide insights for improving intervention effectiveness.

5.2 From Effects to Mechanisms: Testing the Mechanisms of the Double-Edged Sword Effect

Although research demonstrates the double-edged sword effect, comprehensive understanding of why defending behavior produces divergent effects remains lacking. Based on the General Aggression Model, we have integrated existing evidence to propose the underlying mechanisms. Future research should test this double-edged sword effect from this perspective. While we have theoretically argued for the mediating roles of attributions for defenders' motives, bullying responsibility, and bullying resolution, as well as emotions like gratitude and indebtedness, direct empirical evidence remains scarce. Increasingly, researchers are examining cognitive and affective mediators from victims' perspectives. For example, Laninga-Wijnen and Pouwels revealed the mediating role of self-blame attribution between defending behavior and victims' psychological adjustment using attribution theory. Prosocial behavior research has shown differential roles of recipients' emotions like gratitude and indebtedness in the relationship between receiving help and psychosocial adjustment \cite{Gao_X_{et}}{al}}{2024}}. Building on this evidence, future research should examine cognitive and affective pathways linking different defending forms to victims' psychosocial adjustment.

Specifically, future studies should explore victims' differential attributions and emotions regarding the four defending types. Research shows that direct defending, such as 劝阻 ing bullies, is associated with defenders' self-interested motives, while indirect defending, such as comforting victims, is associated with altruistic motives \cite{Pronk_{et}}{al}}{2019}}. Based on our proposed structure, this research actually measured direct constructive defending and indirect constructive defending, consistent with research on dependency-oriented help—where helpers directly solve problems \cite{Nadler_{2002}}. Direct constructive defending, such as assertive protection, can be viewed as dependency-oriented help that may undermine victims' sense of autonomy, negatively impacting their psychosocial adjustment \cite{Healy_{2020}}. Thus, autonomy may represent one affective pathway for direct constructive defending' s negative effects. Additionally, indirect constructive defending may negatively impact victims' psychosocial adjustment through rumination. Research finds that for female victims, receiving indirect constructive defending from close friends with similar victimization experiences, such as emotional support, may lead to maladaptive coping like co-rumination, resulting in more severe depression and social anxiety \cite{Schacter_{Juvonen}}_{2020}}}. Future research should test these pathways.

5.3 From Negative to Positive: Identifying Pathways to Mitigate Negative Effects

This study proposes that defending behavior may cause victims to develop negative cognitions (e.g., negative attributions for defenders' motives and bullying occurrence/resolution) and negative emotions (e.g., indebtedness), negatively impacting their psychosocial adjustment. Future research should therefore explore pathways to reduce victims' negative attributions and emotions.

Specifically, future studies should examine whether increasing victims' interpersonal trust in defenders can mitigate negative cognitions. Prosocial behavior research shows that when recipients' trust in helpers increases, their suspicion of helpers' motives decreases, reducing the risk of psychosocial adjustment problems \cite{Halabi_{{et}}_{{al}}_{{2021}}}. We propose that enhancing victims' trust in defenders may help block negative attributions for defenders' motives, thereby reducing risks of negative emotions like indebtedness and low self-esteem. Future research should test whether increasing victims' trust reduces defending behavior' s adverse effects on their psychosocial adjustment.

Additionally, future research should explore the positive effects of victims transmitting defending behavior to other victims. Research on prosocial behavior transmission—where help recipients help third parties (“you help me, I help him”)—provides insights \cite{Chen_{{2024}}, Gao_Q_{{et}}_{{al}}_{{2024}}, Gray_{{et}}_{{al}}_{{2014}}}. Prosocial behavior transmission research shows that recipients' self-perceived capabilities significantly increase during the process, effectively alleviating negative cognitions and emotions from receiving help \cite{Alvarez_{{van}}_{{Leeuwen}}_{{2015}}}. We propose that bullying situations may also exhibit defending behavior transmission, where defended victims protect other victims. Indeed, research shows that defender and victim roles are fluid, with victims potentially becoming defenders in other incidents \cite{Denaray_{{et}}_{{al}}_{{2021}}}. Victims are not passive recipients but can actively transmit defending behavior to reduce perceived disadvantaged status. Future research should test whether defending behavior transmission helps mitigate negative cognitions and emotions.

5.4 From Individual to Network: Exploring Behavioral Reactions of Victims and Bystanders in Social Networks

Bullying-related behaviors, including defending behavior, are dynamic group phenomena influenced by peer relationship networks \cite{张李斌_等_{{2023}}}. Previous research has primarily examined the double-edged sword effect from individual psychological and behavioral attributes, neglecting the peer relationship network where defending behavior occurs. This limits understanding of the behavior' s dynamic changes within networks and focuses narrowly on emotional adjustment while ignoring victims' behavioral reactions after receiving defense. Future research should employ social network analysis methods, such as longitudinal social network analysis and stochastic actor-oriented models, to focus

on bullying relationship networks and analyze how network structures affect victims' cognition, affect, and behavior.

Specifically, future studies should examine how defender-victim network structures influence victims' behavioral consequences. Research shows that defending behavior exhibits peer influence effects, where friends' defending behavior influences adolescents' own defending levels \cite{Lambe_{{Craig}}_{{2022}}}. *Future research should adopt victims' perspectives to examine whether perceiving friends' different defending forms significantly influences victims' future reciprocity behaviors. Reciprocity behaviors include two forms: "you help me, I help you" reciprocity and "you help me, I help him" transmission* \cite{Gao_Q_{{et}}_{{al}}_{{2024}}}. In defending behavior, the former corresponds to victims' reciprocal behavior toward defenders, while the latter corresponds to defending behavior transmission. Victims' reciprocity may manifest as repayment to defenders, while their prosocial behavior transmission helps establish group norms supporting victims—a mechanism confirmed as crucial for intervention effectiveness \cite{Cheon_{{et}}_{{al}}_{{2023}}}. Future research should examine how peer networks influence these two forms of reciprocity.

Furthermore, future research should investigate network relationship structures between defenders and other bystanders. A key bullying intervention pathway involves converting pro-bullying bystanders or passive outsiders into constructive defenders. Based on social contagion theory, individuals' cognitions, emotions, and behaviors within the same network influence each other toward convergence \cite{van_{{den}}_{{Ende}}_{{et}}_{{al}}_{{2024}}}. Defenders may thus convert pro-bullying or passive bystanders into active defenders through social contagion. Future research should test this using network data.

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