



A Review of the Effect of Childhood Maltreatment on Self-Control and Aggression During Adolescence

Rishi Nanda

Introduction

The World Health Organization (2024) estimates that about 60% of children under age five are regularly subjected to physical punishment or psychological violence by caregivers, which increases later risk of mental and behavioral challenges during teenage, including the perpetration of violence. In addition, childhood maltreatment is a major risk factor for negative developmental outcomes that extend into adolescence and adulthood, including less self-control and externalizing behavior (Cicchetti & Toth, 2005; Jaffee, 2017). Self-control is core to emotional and behavioral regulation, with deficits in self-control being strongly linked to externalizing behaviors such as aggression and impulsivity. This paper asks: How does childhood maltreatment affect self-control, and how does self-control, in turn, influence aggression in adolescence?

Key Definitions

Childhood maltreatment can disrupt emotional and behavioral development, shaping how adolescents regulate their thoughts, emotions, and actions. These early experiences often influence self-control and aggression, two key processes that are closely linked. The following section defines key terms relevant to this relationship, including forms of maltreatment, self-control, and aggression.

Childhood maltreatment includes physical abuse, sexual abuse, neglect, and emotional maltreatment. Physical abuse involves intentional physical harm. Sexual abuse involves an adult or caregiver engaging in or attempting sexual activity with a child. Neglect is the failure to provide basic needs such as food, shelter, medical care, or supervision. Emotional maltreatment involves persistent rejection, humiliation, intimidation, or ignoring a child's emotional needs in ways that cause harm (Cicchetti & Toth, 2005). Often, it is observed that maltreated children are afflicted with more than one type of maltreatment.

Self-regulation is a broad term defined as the ability to manage one's emotions, thoughts, attention, and behaviors by using processes that modify emotional responses, guide cognitive focus, and control actions in order to achieve goals or adapt to situations; conversely, dysregulation reflects difficulty managing emotions, thoughts, attention, and behavior (Spinrad & Eisenberg, 2015). Regulatory capacities or a lack of them help explain resilience or risk for mental and behavioral challenges in adolescence and young adulthood (Eisenberg et al., 2015; Shin et al., 2019). Self-control is part of self-regulation and can be split into two parts: effortful control and reactive control. Effortful control refers to executive-attention processes that enable inhibiting dominant responses, activating subdominant responses, planning, and error monitoring. Further, it involves voluntary deployment of attention, such as focusing and shifting attention, and is often measured by parent and teacher ratings of how well gratification can be delayed. In contrast, reactive control is when the brain acts with minimal executive processing (Eisenberg et al., 2015).

The final key term is aggression, which can be described as reactive or proactive. Reactive aggression is impulsive, retaliatory, and highly emotional. Proactive aggression is planned and oriented toward external rewards (Sánchez et al., 2025). The “I cubed theory” organizes aggressive behavior into three forces: (1) instigation, (2) impellance, and (3) inhibition (Denson et al., 2012). Instigation refers to provocation or rejection that triggers an urge to aggress. Impellance refers to traits or contexts that strengthen that urge. Inhibition refers to self-control processes that block acting on the urge. Aggression is most common when instigation and impellance are strong and inhibition is weak (Denson et al., 2012). Thus, self-control serves as a key inhibitory process, central to this paper’s focus.

Importance of Review

A growing amount of literature suggests that self-control links childhood maltreatment to aggression in adolescence. This review examines evidence for whether self-control explains, at least partially, the association between maltreatment and aggression. It also reviews protective factors, preventative strategies, and interventions that target self-control to reduce the likelihood that maltreated children exhibit aggression during adolescence (Cicchetti & Toth, 2005; Denson et al., 2012; Jaffee, 2017).

Methods

This review synthesized recent research on the impact of childhood maltreatment on self-control and aggression during adolescence. Relevant peer-reviewed studies were identified through Google Scholar searches covering publications spanning 1989 to 2025, using combinations of the keywords “childhood maltreatment,” “self-control,” “aggression,” and “adolescence.” Additional sources were located by manually reviewing the reference lists of key articles and prior reviews. Titles and abstracts were first screened to determine relevance, followed by full-text evaluations to confirm eligibility. Studies were included if they investigated (1) the relationship between childhood maltreatment and self-control, (2) the influence of self-control on adolescent aggression, or (3) the direct effect of childhood maltreatment on aggression. Articles were excluded if they were not written in English or focused on outcomes unrelated to these variables. A total of 37 studies met the inclusion criteria and were retained for synthesis.

Developmental Consequences of Childhood Maltreatment

Emotional and Social Functioning

Maltreated children show difficulties in recognizing, expressing, and regulating emotion, which affect peer dynamics and make it harder to form and maintain healthy relationships (Cicchetti & Toth, 2005). They also show heightened attention to anger cues, difficulty disengaging from threat, and a tendency to misread neutral faces as angry, which are patterns that are known to raise anxiety and the risk of reactive aggression under stress (Jaffee, 2017; Sánchez et al., 2025). These emotion-processing biases suggest early disruptions in regulatory systems that support self-control.

Attachment and Close Relationships

Maltreatment disrupts attachment processes, putting maltreated children at considerable risk for the development of insecure attachment relationships. Insecure attachment refers to maladaptive patterns of emotional bonding that develop when a child's early interactions with primary caregivers are unpredictable, neglectful, or overly controlling. Research has found that maltreated infants show insecure attachment rates as high as 95% (Carlson et al., 1989). On the other hand, secure attachment supports exploration and integrates cognitive, emotional, and behavioral capacities that influence ongoing and future relationships (Cicchetti & Toth, 2005). It also fosters regulatory skills through consistent emotional attunement. Greater insecure attachment in maltreated children has been linked to maladaptive self-development, leading to lower self-control, a predictor of aggressive behaviors (Jaffee, 2017; Cicchetti & Toth, 2005).

Cognitive and Academic Outcomes

Other domains that maltreatment effects are cognitive and academic outcomes. Effortful control supports positive outcomes such as liking school, forming good teacher relationships, and stronger academic performance. Lowered self-control combined with higher impulsivity harms school success and increases externalizing behaviors like acting out and aggression. Importantly, effortful control often predicts these behaviors more strongly than impulsivity alone (Eisenberg et al., 2015). This suggests that lowered self-control caused by childhood maltreatment can have negative academic consequences.

Psychopathology Risk

Children and adults exposed to abuse or neglect in childhood face a higher risk of developing diverse forms of psychopathology, including internalizing and externalizing problems, posttraumatic stress disorder, psychotic symptoms, personality disorders, and aggressive behaviors such as self-injury (Jaffee, 2017). Among these outcomes, aggression represents one of the most externally observable forms of dysregulation. Broader epidemiologic work also documents downstream consequences that include public health burdens and societal costs (World Health Organization, 2024).

Self-control as a Mediating Mechanism

Evidence links maltreatment to dysregulation, including greater impulsivity, distractibility, and weaker planned responding. Chronic exposure to maltreatment or stress during early life can disrupt the development of brain systems involved in executive functioning, such as the prefrontal cortex, and heighten reactivity in emotion-related brain regions like the amygdala (Jedd et al., 2015). These changes can make it harder for children to manage impulses, focus attention, and inhibit inappropriate responses, especially in emotionally charged contexts. As a result, disruptions in self-control may represent a key mechanism through which childhood adversity leads to increased risk-taking behaviors and aggression (Shin et al., 2019; Wang et al., 2025; Zhu et al., 2024).

Experimental work shows that weakening self-control increases reactive aggression when being provoked while strengthening self-control reduces anger and retaliation (DeWall et al., 2007; Finkel et al., 2009). In one set of studies, brief practice of inhibitory control over two weeks reduced anger and aggressive behavior when participants were provoked, including participants higher in trait aggressiveness than average (Denson et al., 2011). These results match up with the inhibition part of the “I cubed theory” (Denson et al., 2012), which states that even when high impellance and instigation are triggering aggression, inhibition can prevent it.

According to a study by Liu et al. (2023), cognitive emotion regulation and effortful control mediated the relationship between childhood psychological maltreatment and aggression in adolescents. In other words, lower self-control helps explain why maltreatment predicts aggression.

In a sample of male juvenile offenders, childhood maltreatment was found to predict higher levels of callous-unemotional traits, which in turn predicted lower self-control, ultimately leading to greater aggression (Xie et al., 2020). Single-mediator models also yielded complete mediation. This means that models using only either callous-unemotional traits or lower self-control as the mediator yielded complete mediation as well. These models would look like childhood maltreatment predicting either higher levels of callous-unemotional traits or lowered self-control, both of which then lead to aggression. Although the data is cross-sectional and a causal relationship cannot be determined, the pattern outlines a clear, testable pathway from maltreatment to aggression through self-control processes.

Protective Factors and Interventions

Resilience

Although maltreated children face higher risks for maladaptation and psychopathology, many still achieve adaptive outcomes. Research has emphasized problems more than pathways to resilience, which is typically defined as positive adaptation in the face of severe adversity. Certain traits appear protective. For instance, a high internal locus of control and higher self-esteem buffered against depression among maltreated adolescents. Resilience also shifts over time. In a longitudinal study spanning toddlerhood through adolescence, only 61% of children who were resilient to maltreatment in grade school remained resilient in adolescence (Herrenkohl et al. 1994). Predictors of resilience differ by maltreatment history. For maltreated youth, positive self-esteem characteristics were the strongest predictors of resilience, whereas for nonmaltreated youth, relationship qualities were more influential (Cicchetti & Toth, 2005; Barnett et al., 1999). These characteristics may promote better self-control and emotional regulation.

Supportive Relationships

One major protective factor is having supportive relationships. Supportive parenting relates to higher effortful control (Eisenberg et al., 2015). Broader social support can buffer psychopathology risk among youth with maltreatment histories and can bring risk levels closer to those seen in people who have not suffered from childhood maltreatment. Studies show that low levels of social support partially explains why people with histories of childhood maltreatment have elevated rates of psychopathology (Lamis et al. 2014; Runtz & Schallow

1997; Sperry & Widom 2013; Vranceanu et al. 2007; Jaffee 2017), even though not all research shows that social support fully explains the connection between maltreatment and later psychopathology (Powers et al. 2009; Tremblay et al. 1999; Jaffee, 2017). Thus, supportive relationships may strengthen self-control processes and buffer aggression risk.

Training Self-control

In one study, researchers tested whether practicing self-control could make people less aggressive (Denson et al., 2011). Participants were split into two groups: one practiced self-control for two weeks by using their nondominant hand for daily tasks, while the other just did math problems. Later, both groups were deliberately provoked in a lab. Those who had practiced self-control felt less angry and were less likely to retaliate, even those who were naturally more aggressive. This shows that practice regimens that target inhibitory control and attention can lower anger and retaliation when provoked. Such findings support the bolstering hypothesis, which says that building self-control can reduce aggressive behavior when instigation and impellance are present (Denson et al., 2012). Therefore, these interventions could be adapted for at-risk youth (i.e., maltreated youth).

Attachment-Focused and Family Interventions

Researchers conducted a randomized clinical trial to evaluate interventions targeting attachment in maltreated infants and their mothers. Infants were assigned to one of three conditions: a psychoeducational home visitation program focused on parenting and stress reduction, an attachment-based infant–parent psychotherapy intervention, or standard community services. A fourth group of nonmaltreated infants as a comparison group was also included. After one year, infants in the psychoeducational and attachment-based interventions statistically showed significant gains in attachment security, reaching levels comparable to nonmaltreated infants. In contrast, those receiving standard community services showed nearly no improvement, indicating that traditional programs may not effectively promote attachment development. These findings highlight the value of attachment-focused intervention early on in childhood (Cicchetti & Toth, 2005; Cicchetti et al., 2006). Specifically, because attachment security supports the development of self-regulation, such interventions may reduce later aggression among maltreated youth.

Gaps in Current Research and Future Directions

A limitation is that not all studies isolated self-control as the only mediator. Additionally, not all studies were conducted over a considerable length of time. Hypervigilance to threat, emotion processing biases, and reward sensitivity may also add risk to aggression in adolescence by maltreated children, and warrant further investigation (Jaffee, 2017; Cicchetti & Toth, 2005). Going forward, researchers should run large longitudinal studies that follow the same youth across several points in time to show the order of events from maltreatment to changes in self-control to later aggression. In addition, studies should include diverse participants, repeat the work in different countries and cultures, and move trials into real schools and clinics with enough people to see if the results are more universal, or only happened during

that study. Clarifying these mechanisms across cultures and developmental periods will guide more precise interventions to strengthen self-control and reduce aggression.

Conclusion

Across the literature, research suggests that childhood maltreatment elevates risk for adolescent aggression. Reducing maltreatment and strengthening caregiving and attachment to parents early on can remove upstream risk. Reductions in self-control provide a plausible pathway to adolescent aggression in maltreated children. Directly building effortful control and broader self-regulation can help keep aggressive impulses in check when youth face instigation and have high impellance. Continued longitudinal work can clarify how effectively self-control training and prevention of childhood maltreatment most effectively interrupt the pathway from early adversity to aggression (Cicchetti & Toth, 2005; Denson et al., 2012; Jaffee, 2017; Xie et al., 2020; Sánchez et al., 2025). By identifying how maltreatment undermines self-control, researchers and clinicians can better design programs that promote resilience and reduce aggression during adolescence

References

- Barnett, D., Ganiban, J., & Cicchetti, D. (1999). Maltreatment, negative expressivity, and the development of Type D attachments from 12 to 24 months of age. *Monographs of the Society for Research in Child Development*, 97–118.
<https://doi.org/10.1111/1540-5834.00035>
- Carlson, V., Cicchetti, D., Barnett, D., & Braunwald, K. (1989). Disorganized/disoriented attachment relationships in maltreated infants. *Developmental Psychology*, 25(4), 525.
<https://doi.org/10.1037/0012-1649.25.4.525>
- Cicchetti, D., & Toth, S. L. (2005). Child maltreatment. *Annual Review of Clinical Psychology*, 1, 409–438. <https://doi.org/10.1146/annurev.clinpsy.1.102803.144029>
- Cicchetti, D., Rogosch, F. A., & Toth, S. L. (2006). Fostering secure attachment in infants in maltreating families through preventive interventions. *Development and Psychopathology*, 18(3), 623–649. <https://doi.org/10.1017/S0954579406060329>
- Currie, J., & Tekin, E. (2006). Does child abuse cause crime? National Bureau of Economic Research Working Paper No. 12171. <https://doi.org/10.3386/w12171>
- Denson, T. F., Capper, M. M., Oaten, M., Friese, M., & Schofield, T. P. (2011). Self-control training decreases aggression in response to provocation in aggressive individuals. *Journal of Research in Personality*, 45(2), 252–256.
<https://doi.org/10.1016/j.jrp.2011.02.001>
- Denson, T. F., DeWall, C. N., & Finkel, E. J. (2012). Self-control and aggression. *Current Directions in Psychological Science*, 21(1), 20–25.
<https://doi.org/10.1177/0963721411429451>
- Denson, T. F., von Hippel, W., Kemp, R. I., & Teo, L. S. (2010). Glucose consumption decreases impulsive aggression in response to provocation in aggressive individuals. *Journal of Experimental Social Psychology*, 46(6), 1023–1028.
<https://doi.org/10.1016/j.jesp.2010.05.023>

- DeWall, C. N., Baumeister, R. F., Stillman, T. F., & Gailliot, M. T. (2007). Violence restrained: Effects of self-regulation and its depletion on aggression. *Journal of Experimental Social Psychology*, 43(1), 62–76. <https://doi.org/10.1016/j.jesp.2005.12.005>
- Eisenberg, N., Hofer, C., & Vaughan, J. (2007). Effortful control and its socioemotional consequences. In *Self-Regulation in Adolescence* (pp. 1–46). Cambridge University Press. <https://doi.org/10.1017/CBO9781139565790.004>
- Finkel, E. J., DeWall, C. N., Slotter, E. B., Oaten, M., & Foshee, V. A. (2009). Self-regulatory failure and intimate partner violence perpetration. *Journal of Personality and Social Psychology*, 97(3), 483. <https://doi.org/10.1037/a0015433>
- He, N., & Xiang, Y. (2021). How child maltreatment impacts internalized/externalized aggression among Chinese adolescents from perspectives of social comparison and the general aggression model. *Child Abuse & Neglect*, 117, 105024. <https://doi.org/10.1016/j.chiabu.2021.105024>
- Herrenkohl, E. C., Herrenkohl, R. C., & Egolf, B. (1994). Resilient early school-age children from maltreating homes: Outcomes in late adolescence. *American Journal of Orthopsychiatry*, 64(2), 301–309. <https://doi.org/10.1037/h0079517>
- Jaffee, S. R. (2017). Child maltreatment and risk for psychopathology in childhood and adulthood. *Annual Review of Clinical Psychology*, 13, 525–551. <https://doi.org/10.1146/annurev-clinpsy-032816-045005>
- Jedd, K., Hunt, R. H., Cicchetti, D., Hunt, E., Cowell, R. A., Rogosch, F. A., ... & Thomas, K. M. (2015). Long-term consequences of childhood maltreatment: Altered amygdala functional connectivity. *Development and Psychopathology*, 27(4pt2), 1577–1589. <https://doi.org/10.1017/S0954579415000954>
- Jin, M., Wang, Z., Zhou, Y., & Zhong, J. (2023). Exploring the impact of childhood maltreatment and BPD on impulsivity in crimes of passion. *Frontiers in Psychiatry*, 14, 1159678. <https://doi.org/10.3389/fpsy.2023.1159678>
- Kim, Y., Richards, J. S., & Oldehinkel, A. J. (2022). Self-control, mental health problems, and family functioning in adolescence and young adulthood: between-person differences and within-person effects. *Journal of Youth and Adolescence*, 51(6), 1181–1195. <https://doi.org/10.1007/s10964-021-01564-3>
- Lamis, D. A., Wilson, C. K., King, N. M., & Kaslow, N. J. (2014). Child abuse, social support, and social functioning in African American children. *Journal of Family Violence*, 29(8), 881–891. <https://doi.org/10.1007/s10896-014-9639-9>
- Liu, F., Yu, T., Xu, Y., & Che, H. (2023). Psychological maltreatment and aggression in preadolescence: Roles of temperamental effortful control and maladaptive cognitive emotion regulation strategies. *Child Abuse & Neglect*, 135, 105996. <https://doi.org/10.1016/j.chiabu.2022.105996>
- Neaverson, A., Murray, A. L., Ribeaud, D., & Eisner, M. (2020). A longitudinal examination of the role of self-control in the relation between corporal punishment exposure and adolescent aggression. *Journal of Youth and Adolescence*, 49(6), 1245–1259. <https://doi.org/10.1007/s10964-020-01215-z>
- Özdemir Bişkin, S. (2024). Childhood maltreatment and adolescent risky behavior: Mediating the effect of parent–adolescent conflict and violent tendencies. *Behavioral Sciences*, 14(11), 1058. <https://doi.org/10.3390/bs14111058>
- Pandey, A., Hale, D., Das, S., Goddings, A. L., Blakemore, S. J., & Viner, R. M. (2018). Effectiveness of universal self-regulation–based interventions in children and

- adolescents: A systematic review and meta-analysis. *JAMA Pediatrics*, 172(6), 566–575. <https://doi.org/10.1001/jamapediatrics.2018.0232>
- Peng, J., Zhang, J., Yuan, W., Zhou, X., & Fang, P. (2023). The correlation of childhood maltreatment and aggression among incarcerated adolescents: Testing the mediating effects of self-esteem and self-control. *Current Psychology*, 42(29), 25648–25657. <https://doi.org/10.1007/s12144-022-03618-6>
- Powers, A., Ressler, K. J., & Bradley, R. G. (2009). The protective role of friendship on the effects of childhood maltreatment. *Depression and Anxiety*, 26(1), 46–53. <https://doi.org/10.1002/da.20534>
- Runtz, M. G., & Schallow, J. R. (1997). Social support and coping strategies as mediators of adult adjustment following childhood maltreatment. *Child Abuse & Neglect*, 21(2), 211–226. [https://doi.org/10.1016/S0145-2134\(96\)00147-0](https://doi.org/10.1016/S0145-2134(96)00147-0)
- Russell, T. D., Veith, A., & King, A. R. (2015). Childhood maltreatment predictors of trait impulsivity.
- Shin, S. H., Cook, A. K., Morris, N. A., McDougale, R., & Groves, L. P. (2016). The different faces of impulsivity as links between childhood maltreatment and young adult crime. *Preventive Medicine*, 88, 210–217. <https://doi.org/10.1016/j.ypmed.2016.03.022>
- Shin, S. H., Jiskrova, G. K., & Wills, T. A. (2019). Childhood maltreatment and alcohol use in young adulthood: The role of self-regulation processes. *Addictive Behaviors*, 90, 241–249. <https://doi.org/10.1016/j.addbeh.2018.11.006>
- Spinrad, T. L., & Eisenberg, N. (2015). Effortful control. *Emerging Trends in the Social and Behavioral Sciences*, 2–11. <https://doi.org/10.1002/9781118900772.etrds0097>
- Sperry, D. M., & Widom, C. S. (2013). Child abuse and neglect, social support, and psychopathology in adulthood: A prospective investigation. *Child Abuse & Neglect*, 37(6), 415–425. <https://doi.org/10.1016/j.chiabu.2013.02.006>
- Tremblay, C., Hébert, M., & Piché, C. (1999). Coping strategies and social support as mediators of consequences in child sexual abuse victims. *Child Abuse & Neglect*, 23(9), 929–945. [https://doi.org/10.1016/S0145-2134\(99\)00056-3](https://doi.org/10.1016/S0145-2134(99)00056-3)
- VanTieghem, M. R., & Tottenham, N. (2017). Neurobiological programming of early life stress: Functional development of amygdala-prefrontal circuitry and vulnerability for stress-related psychopathology. In *Behavioral Neurobiology of PTSD* (pp. 117–136). https://doi.org/10.1007/7854_2016_42
- Vranceanu, A. M., Hobfoll, S. E., & Johnson, R. J. (2007). Child multi-type maltreatment and associated depression and PTSD symptoms: The role of social support and stress. *Child Abuse & Neglect*, 31(1), 71–84. <https://doi.org/10.1016/j.chiabu.2006.04.010>
- Wang, L. X., Li, J. B., Liu, Z. H., Zeng, J., & Dou, K. (2025). The impact of adverse childhood experiences on the development of adolescent risk-taking: The mediating effect of self-control and moderating effect of genetic variations. *Journal of Youth and Adolescence*, 1–21. <https://doi.org/10.1007/s10964-025-02136-5>
- World Health Organization. (2024, November 5). Child maltreatment. Retrieved October 11, 2025, from <https://www.who.int/news-room/fact-sheets/detail/child-maltreatment>.
- Xie, Q., Bi, T., Du, Y., Kou, H., & Yang, B. (2020). Childhood maltreatment is associated with aggression among male juvenile delinquents in China: The mediating effects of callous-unemotional traits and self-control. *Frontiers in Psychology*, 11, 1373. <https://doi.org/10.3389/fpsyg.2020.01373>



Zhu, Z., Liu, G., Chen, X., & Zhang, W. (2024). Effects of childhood abuse experiences on peer victimization in adolescence: The mediating role of self-control, aggression, and depression. *Current Psychology*, 43(26), 1–10.
<https://doi.org/10.1007/s12144-024-05948-z>