

# Early Childhood Resilience and Later School Outcomes

Subjects: Social Work

Contributor: Yoon Susan, Fei Pei, Jessica Logan, Sherry Hamby

The longitudinal associations between early childhood resilience profiles (low emotional and behavioral resilience, low cognitive resilience, multi-domain resilience) and school outcomes (academic achievement; emotional and behavioral school engagement) among children involved with the U.S. child welfare system are examined. Overall, the lasting effects of early resilience into the later childhood years are indicated, demonstrating the virtuous cycles of resilience. At the three-year follow-up assessment, children with low emotional and behavioral resilience profiles and children with the multi-domain resilience profile at baseline (aged 3-5 years) had significantly higher basic reading skills, reading comprehension, and math reasoning compared to children with low scores on the cognitive resilience profile. Researchers results suggest the need for early identification of and intervention for children with low cognitive or emotional/behavioral resilience during the preschool years to promote academic success and school engagement during the school-age years.

Keywords: resilience ; school outcomes ; child maltreatment ; child welfare ; early childhood ; academic achievement ; school involvement ; adverse childhood experience

---

## 1. Background

Building resilience during early childhood has long-lasting positive effects on an individual's well-being over the life course. There is a growing body of research on resilience among children who have experienced childhood maltreatment. Recently, an emerging line of research has utilized person-centered approaches (e.g., cluster analysis, latent class analysis, latent profile analysis, or growth mixture modeling) to explore patterns of resilience in populations with a history of childhood trauma and maltreatment. Although recent research has made remarkable headway towards identifying resilience patterns in maltreated children, how these patterns affect later developmental functioning, such as school outcomes, remains unclear and understudied. Examining school outcomes related to early childhood resilience (defined here as a process of achieving positive adaptation across multiple domains of functioning despite exposure to trauma <sup>[1]</sup> during the preschool years) is crucial in maintaining and strengthening early developmental assets and milestones. Three distinct profiles of early childhood resilience (i.e., low cognitive resilience, low emotional and behavioral resilience, and multi-domain resilience) among child-welfare-involved children <sup>[2]</sup>.

## 2. Resilience in Children with a History of Child Maltreatment

Children who have experienced child maltreatment often face adverse psychosocial and behavioral outcomes in later life <sup>[3][4]</sup>. Specifically, there is a known association between maltreatment and poor social adjustment, juvenile delinquency, psychiatric conditions, low education attainment, and substance abuse <sup>[5][6][7]</sup>. Several challenges persist for this population as they experience continued exposure to violence, separation from parents/caregivers, multiple out-of-home placements, or re-traumatization <sup>[8]</sup>.

Fortunately, there is a plethora of research on resiliency and protective factors that help support healthy development <sup>[9][10]</sup>. These studies provide empirical evidence that these children can achieve positive adaptation despite their maltreatment <sup>[11][12][13][14][15]</sup>. Moreover, a robust body of research has found that certain protective factors help mitigate the harmful effects of childhood maltreatment <sup>[16][17]</sup>. Among these are personal attributes such as self-efficacy, emotion regulation, temperament, or future orientation; family and cultural supports such as parental emotional support, cognitive stimulation, or parent-child attachment; school/community resources and characteristics such as community cohesion, schools, or peer support <sup>[4][16][17][18][19]</sup>. Taken cumulatively, these studies recognize the importance of employing a strengths-based perspective to examine resilience and protective factors among children with a history of child maltreatment, as well as moving beyond deficit models that focus on risks and adverse outcomes.

### 3. Measuring Resilience and Identifying Patterns of Resilience

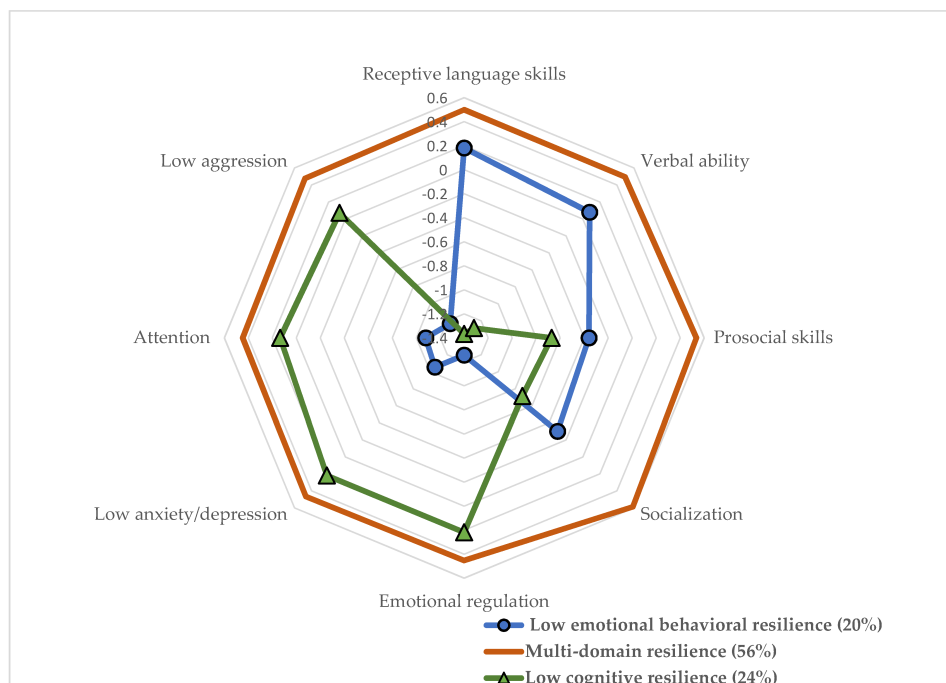
Resilience has been historically difficult to measure due to the dynamic nature of the changes and development across the various domains of human function <sup>[9]</sup>. The literature includes disparate methods and instruments to assess an individual's resilience and adaptation to hardship, particularly in studies that focus on adults and children with a history of maltreatment <sup>[20]</sup>. Studies involving children frequently measure functioning across developmental domains (social, cognitive, emotional, behavioral, and occupational) and achievement milestones <sup>[9]</sup>. In contrast, studies that measure resilience in adults often include the preclusion of psychopathology, measurements of well-being, and social competency <sup>[24]</sup>. However, studies remain varied throughout both groups.

Although measurement differences remain a challenge in research, multipoint resilience indicators remain viable for comprehensively assessing resilience across different developmental domains <sup>[16]</sup>. Researchers have argued for considering multiple domains of child functioning when examining resilience among children with a history of maltreatment <sup>[9][16][22]</sup>, as competence and resilience within one domain do not guarantee competence and resilience in another domain. Altogether, child maltreatment and resilience researchers have suggested that resilience measures should be comprehensive and expansive to capture the many facets of resilience and adaptation among children with maltreatment histories.

Recently, an emerging line of research has explored different patterns of resilience, using person-centered approaches rather than variable-centered approaches. While a variable-centered approach focuses on examining the relationship among variables, a person-centered approach identifies heterogeneous subgroups of individuals who share distinct characteristics and attributes <sup>[23]</sup>. Thus, a person-centered approach is useful in identifying unique and distinct configurations of resilience. One study used a latent profile analysis with a sample of 164 emancipated foster youth and identified four resilience profiles, including maladaptive (16.5%), resilient (47%), internally resilient (30%), and externally resilient (6.5%) <sup>[24]</sup>. Another study conducted a latent profile analysis with 12-year-old children who had been involved with child protective services (CPS). The study identified five profiles of adaptation/competence, including consistent resilience (12.7%), consistent maladaptation (11.6%), posttraumatic stress problems (8.9%), school maladaptation/family protection (36.2%), and low socialization skills (30.6%) <sup>[25]</sup>. Other studies, not specifically focused on child maltreatment, explored resilience patterns among children who have experienced early adversities and trauma (such as exposure to intimate partner violence, poverty, or parental psychopathology), and these studies likewise identified four or five patterns of resilience <sup>[15][26]</sup>.

### 4. Early Childhood Resilience Profiles and Later School Outcomes

Researchers team's prior work focused on the identification of profiles of resilience, specifically during early childhood (the ages of 3 to 5 years) among child-welfare-involved children as this important developmental period remained overlooked in the maltreatment and resilience profile literature <sup>[2]</sup>. Using a latent profile analysis, researchers identified three distinct profiles of resilience: low emotional and behavioral resilience (20%), low cognitive resilience (24%), and multi-domain resilience (56%). The low emotional and behavioral resilience profile had children who showed the lowest emotional and behavioral adaptations yet above-average levels of cognitive and social functioning. The low cognitive resilience profile included children who showed the lowest levels of cognitive ability and lower levels of social functioning, yet average levels of emotional and behavioral functioning. Finally, the multi-domain resilience profile included children who demonstrated above-average levels of competence across all domains of functioning (**Figure 1** provides a visual representation of the three latent profiles).



**Figure 1.** Radar Chart of Early Childhood Resilience Profiles. Note. Adapted from [2]. z-scores ( $M = 0$ ,  $SD = 1$ ) of the resilience indicators were used for the radar chart for interpretability purposes.

Despite emerging research exploring distinct configurations of resilience among children with maltreatment histories, including researcher's work of three early childhood resilience profiles, little research has examined how resilience profiles in early childhood are associated with distal outcomes such as school outcomes at a later developmental stage. School context and outcomes are critical to examine as they have important short- and long-term implications for elements of quality of life, including child self-esteem/self-worth, mental and behavioral well-being, and later employment status and job satisfaction during adulthood [27][28][29][30][31]. For example, school engagement is a protective factor for maltreated children [32]. Specifically, researchers have found that children with adverse childhood experiences demonstrate high levels of well-being, including higher self-esteem, when they have high levels of high school engagement [33][34]. Youth acquire a sense of belongingness and purpose when they feel connected to their school and the staff [35][36]. Unfortunately, however, research has also shown that although school is an important change agent, children with a history of maltreatment are likely to quickly disengage from school for reasons such as placement or school instability and peer victimization [35]. Similarly, children with maltreatment histories often experience academic difficulties and poorer academic achievement, including lower scores on standardized reading and math tests [37][38].

To date, most studies have examined resilience profiles as an outcome and have focused on identifying predictors or characteristics associated with resilience profiles [15][25][26]. Consequently, there is a dearth of research on the relationship between early childhood resilience profiles and distal outcomes such as later school outcomes (e.g., academic achievement or school engagement) among children involved with the child welfare system. Understanding how early childhood resilience affects later development and outcomes is vital to developing intervention strategies that will maximize the likelihood of ongoing, uninterrupted resilient development. Although not directly focused on children with maltreatment histories, one study found that children who grew up in poverty but achieved a high threshold of resilience by the time they entered kindergarten showed academic achievement during the elementary school years comparable to that of children not in poverty [39], providing preliminary evidence that resilience in early childhood predicts later school success.

Building upon researcher's prior work on early childhood resilience profiles [2], researchers examined the resilience profiles' long-term relations to academic achievement and school engagement during the school-age years. Understanding the long-term influence of early childhood resilience on school outcomes is vital to providing effective support and interventions that foster continued resilient development, including success in school, for this vulnerable population.

## References

1. Luthar, S.S.; Cicchetti, D.; Becker, B. The construct of resilience: A critical evaluation and guidelines for future work. *Child Dev.* 2000, 71, 543–562.

2. Yoon, S.; Pei, F.; Logan, J.; Helsabeck, N.; Hamby, S.; Slesnick, N. Early childhood maltreatment and profiles of resilience among child welfare-involved children. *Dev. Psychopathol.* 2022, 1–13.
3. Lansford, J.E.; Malone, P.S.; Stevens, K.I.; Dodge, K.A.; Bates, J.E.; Pettit, G.S. Developmental trajectories of externalizing and internalizing behaviors: Factors underlying resilience in physically abused children. *Dev. Psychopathol.* 2006, 18, 35–55.
4. Sattler, K.M.; Font, S.A. Resilience in young children involved with child protective services. *Child Abus. Negl.* 2018, 75, 104–114.
5. Farnia, V.; Salemi, S.; Mordinazar, M.; Khanegi, M.; Tatari, F.; Golshani, S.; Jamshidi, P.; Alikhani, M. The effect of child-abuse on the behavioral problems in the children of the parents with substance use disorder: Presenting a model of structural equations. *J. Ethn. Subst. Abus.* 2020, 21, 730–746.
6. Garbarino, J.; Plantz, M.C. Child abuse and juvenile delinquency: What are the links? In *Troubled Youth. Troubled Families*; Routledge: London, UK, 2017; pp. 27–40.
7. Halpern, S.C.; Schuch, F.B.; Scherer, J.N.; Sordi, A.O.; Pachado, M.; Dalbosco, C.; Fara, L.; Pechansky, F.; Kessler, F.; Von Diemen, L. Child maltreatment and illicit substance abuse: A systematic review and meta-analysis of longitudinal studies. *Child Abus. Rev.* 2018, 27, 344–360.
8. Filippelli, J.; Fallon, B.; Truelsen, S.; Carradine, J. An Initial Evaluation of a Resource Parent Training Curriculum for Child Welfare-Involved Children Who Have Experienced Trauma and Loss. *Adopt. Q.* 2022, 25, 27–46.
9. Walsh, W.A.; Dawson, J.; Mattingly, M.J. How are we measuring resilience following childhood maltreatment? Is the research adequate and consistent? What is the impact on research, practice, and policy? *Trauma Violence Abus.* 2010, 11, 27–41.
10. Wekerle, C. Resilience in the context of child maltreatment: Connections to the practice of mandatory reporting. *Child Abus. Negl.* 2013, 37, 93–101.
11. Cicchetti, D.; Rogosch, F.A. Gene  $\times$  Environment interaction and resilience: Effects of child maltreatment and serotonin, corticotropin releasing hormone, dopamine, and oxytocin genes. *Dev. Psychopathol.* 2012, 24, 411–427.
12. Dubowitz, H.; Thompson, R.; Proctor, L.; Metzger, R.; Black, M.M.; English, D.; Poole, G.; Magder, L. Adversity, maltreatment, and resilience in young children. *Acad. Pediatr.* 2016, 16, 233–239.
13. Flores, E.; Cicchetti, D.; Rogosch, F.A. Predictors of resilience in maltreated and nonmaltreated Latino children. *Dev. Psychol.* 2005, 41, 338.
14. Ungar, M. Resilience after maltreatment: The importance of social services as facilitators of positive adaptation. *Child Abus. Negl.* 2013, 37, 110–115.
15. Yoon, S.; Helsabeck, N.; Wang, X.; Logan, J.; Pei, F.; Hamby, S.; Slesnick, N. Profiles of resilience among children exposed to non-maltreatment adverse childhood experiences. *Int. J. Environ. Res. Public Health* 2021, 18, 10600.
16. Afifi, T.O.; MacMillan, H.L. Resilience following child maltreatment: A review of protective factors. *Can. J. Psychiatry* 2011, 56, 266–272.
17. Meng, X.; Fleury, M.-J.; Xiang, Y.-T.; Li, M.; D'arcy, C. Resilience and protective factors among people with a history of child maltreatment: A systematic review. *Soc. Psychiatry Psychiatr. Epidemiol.* 2018, 53, 453–475.
18. Edmond, T.; Auslander, W.; Elze, D.; Bowland, S. Signs of resilience in sexually abused adolescent girls in the foster care system. *J. Child Sex. Abus.* 2006, 15, 1–28.
19. Tlapek, S.M.; Auslander, W.; Edmond, T.; Gerke, D.; Schrag, R.V.; Threlfall, J. The moderating role of resiliency on the negative effects of childhood abuse for adolescent girls involved in child welfare. *Child. Youth Serv. Rev.* 2017, 73, 437–444.
20. Cicchetti, D. Resilience under conditions of extreme stress: A multilevel perspective. *World Psychiatry* 2010, 9, 145.
21. Stine-Morrow, E.A.; Chui, H. Cognitive resilience in adulthood. *Annu. Rev. Gerontol. Geriatr.* 2012, 32, 93–114.
22. Domhardt, M.; Münzer, A.; Fegert, J.M.; Goldbeck, L. Resilience in survivors of child sexual abuse: A systematic review of the literature. *Trauma Violence Abus.* 2015, 16, 476–493.
23. Muthén, B.; Muthén, L.K. Integrating person-centered and variable-centered analyses: Growth mixture modeling with latent trajectory classes. *Alcohol. Clin. Exp. Res.* 2000, 24, 882–891.
24. Yates, T.M.; Grey, I.K. Adapting to aging out: Profiles of risk and resilience among emancipated foster youth. *Dev. Psychopathol.* 2012, 24, 475–492.
25. Martinez-Torteya, C.; Miller-Graff, L.E.; Howell, K.H.; Figge, C. Profiles of adaptation among child victims of suspected maltreatment. *J. Clin. Child Adolesc. Psychol.* 2017, 46, 840–847.

26. McDonald, S.E.; Graham-Bermann, S.A.; Maternick, A.; Ascione, F.R.; Williams, J.H. Patterns of adjustment among children exposed to intimate partner violence: A person-centered approach. *J. Child Adolesc. Trauma*. 2016, 9, 137–152.
27. Bjerk, D. Re-examining the impact of dropping out on criminal and labor outcomes in early adulthood. *Econ. Educ. Rev.* 2012, 31, 110–122.
28. Henry, K.L.; Knight, K.E.; Thornberry, T.P. School disengagement as a predictor of dropout, delinquency, and problem substance use during adolescence and early adulthood. *J. Youth Adolesc.* 2012, 41, 156–166.
29. Pietarinen, J.; Soini, T.; Pyhältö, K. Students' emotional and cognitive engagement as the determinants of well-being and achievement in school. *Int. J. Educ. Res.* 2014, 67, 40–51.
30. Winefield, A.H.; Tiggemann, M. Employment status and psychological well-being: A longitudinal study. *J. Appl. Psychol.* 1990, 75, 455.
31. Yang, Q.; Tian, L.; Huebner, E.S.; Zhu, X. Relations among academic achievement, self-esteem, and subjective well-being in school among elementary school students: A longitudinal mediation model. *Sch. Psychol.* 2019, 34, 328.
32. Gartland, D.; Riggs, E.; Muyeen, S.; Giallo, R.; Afifi, T.O.; MacMillan, H.; Herrman, H.; Bulford, E.; Brown, S.J. What factors are associated with resilient outcomes in children exposed to social adversity? A systematic review. *BMJ Open* 2019, 9, e024870.
33. Bethell, C.D.; Newacheck, P.; Hawes, E.; Halfon, N. Adverse childhood experiences: Assessing the impact on health and school engagement and the mitigating role of resilience. *Health Aff.* 2014, 33, 2106–2115.
34. Khambati, N.; Mahedy, L.; Heron, J.; Emond, A. Educational and emotional health outcomes in adolescence following maltreatment in early childhood: A population-based study of protective factors. *Child Abus. Negl.* 2018, 81, 343–353.
35. Leiter, J. School performance trajectories after the advent of reported maltreatment. *Child Youth Serv. Rev.* 2007, 29, 363–382.
36. Sesma, A.; Mannes, M.; Scales, P.C. Positive adaptation, resilience and the developmental assets framework. In *Handbook of Resilience in Children*; Springer: Berlin/Heidelberg, Germany, 2013; pp. 427–442.
37. McGuire, A.; Jackson, Y. A multilevel meta-analysis on academic achievement among maltreated youth. *Clin. Child Fam. Psychol. Rev.* 2018, 21, 450–465.
38. Haskett, M.E.; Nears, K.; Ward, C.S.; McPherson, A.V. Diversity in adjustment of maltreated children: Factors associated with resilient functioning. *Clin. Psychol. Rev.* 2006, 26, 796–812.
39. Sattler, K.; Gershoff, E. Thresholds of resilience and within-and cross-domain academic achievement among children in poverty. *Early Child. Res. Q.* 2019, 46, 87–96.