ENCYCLOPEDIA
on Early Childhood
Development

[Archived] Programs and Services Proven to Be Effective in Reducing Aggression in Young Children. Comments on Webster-Stratton, Domitrovich and Greenberg, and Lochman

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May 2003

Introduction

The papers on aggression highlight three key points. First, aggressive-disruptive behaviour problems are the most common reason for mental health service referral in childhood. Second, they disproportionately affect children living under conditions of socio-economic disadvantage, compounding the educational and social deprivation experienced by these children. Third, they are highly stable, and, if left untreated, increase the risk for future delinquency, substance use,

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depression, and school failure, resulting in extremely high costs to the individuals and families involved, and to society in general. Some proven preventive interventions exist, but strategies are needed to enhance the broad-based diffusion and high fidelity implementation of evidence-based practices. In addition, further research is needed to inform practice and policy in this important area.

Subject

The papers provide a compelling argument for applying a developmental perspective when designing prevention programs to reduce early aggression. The authors each note how, without prevention, early risk factors tend to accumulate and escalate over time, so that children who complete the preschool years without learning to control their aggression enter grade school at high risk for continuing and escalating adjustment problems.[1] Negative consequences include peer rejection and victimization,[2] as well as academic discouragement, and escalating frustration, [3] setting the stage for adolescent disengagement, school failure, alcohol and substance use, and criminal activity.[4,5]

Problems

As noted, multiple interacting factors put children at risk for violence, including child temperamental characteristics, parenting practices and family processes, school experiences, and peer influences. These factors certainly deserve attention in prevention programs.

By focusing on the reduction of early aggressive behaviour alone, however, these papers imply that aggressive behaviours may be treated without concurrent attention to the “whole child” and a child’s skills in other areas of social-emotional and cognitive development. Many of the risk factors associated with aggressive behaviours also predict delays in the development of language skills, cognitive skills, and social-emotional understanding.[6,7] Developmentally, most children display aggressive behaviours when they are first learning to get along with others (around age 2 or 3). The verbal, emotional, and social skills they develop during the preschool years allow them to inhibit their first impulses, comply with social protocol, and "use their words" to voice dissatisfaction and resolve disagreements. Hence, preventive interventions during the early childhood years need to focus not only on decreasing aggression, but also on promoting the development of a broad set of competencies that allow children to become positive members of their family, peer groups, and school communities.

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Research Context

As noted in the papers, many of the empirically supported programs that prevent aggression have focused on grade-school children, with relatively few studies targeting children from birth to age 5. Most of the studies with younger children have focused on parent training — reducing child aggression by promoting positive parent–child relations and effective, non-punitive discipline practices.[8] More recently, similar programs were designed to train teachers to use positive behavioural management strategies, including clear limit-setting and non-punitive consequences (eg, time-outs) to reduce classroom aggression.[8]

In addition to programs that target aggression specifically, some effective early education programs designed to promote children's social, emotional, and cognitive competence have also been shown to reduce child aggression.[9,10] Adaptive skills in the areas of language, self-regulation, and social interaction promote aggression control.[11-14] Teacher-led instructions, when combined with multiple practice opportunities, teacher coaching, and a supportive classroom environment, can effectively promote children's emotional understanding, self control, and social competence, and thereby lead to sustained reductions in aggressive behaviour.[15-16]

Key Research Questions

A consensus is evident regarding the key research questions:

1. What are the most efficient, effective, and cost-effective preventive interventions, based upon randomized clinical trial evaluations?
2. What are the active mechanisms and proximal outcomes targeted by these programs that appear central to preventing longer-term negative outcomes?
3. What are the child, family, or school risk factors that moderate the efficacy of these interventions and require accommodation in prevention design?

Research attention is also needed to identify strategies and factors associated with the broad-based, high-fidelity diffusion of empirically supported practices.

Recent Research Results

The papers describe empirically supported parent training programs with demonstrated effects on reducing aggression in young children (ages 2 to 5), as well as recent school-based

interventions, such as *The Incredible Years Teacher Training Program*, designed to teach effective classroom management strategies.[17] Promising but not as well researched at the preschool level are child-focused interventions, which attempt to reduce risk by improving social, emotional, or cognitive skills, such as the *Incredible Years Dinosaur Curriculum,*[17-18]*I Can Problem Solve*,[19] and the preschool *Promoting Alternative Thinking Strategies.*[20-22]

Increasingly, at the grade school level, effective approaches to the prevention of aggression involve multi-faceted interventions that integrate parent, child, and teacher-focused components.[23] However, at this point, we need to develop and evaluate preschool approaches to prevention that apply cohesive and coordinated interventions linking school-based delivery to children with parent training components and teacher consultation.[24,16]

Conclusions

Although the majority of preventive interventions that target aggression have been designed for elementary-school-aged children rather than those in preschool, developmental research suggests that efforts to prevent aggression and related developmental problems should begin in early childhood when learning to control aggression is a normative developmental task, rather than waiting until school age when problems manifest themselves at clinically significant rates.

The capacity to control aggression relies on a developmental foundation of supportive competencies, including language, self-regulation, and social skills. Hence, strategies to promote the control of aggression should be integrated into strategies to promote competencies in language skills, self-regulation, and social skills.

Although current research base provides strong support for parent-focused programs during the preschool years, at older age levels the most positive, robust results have been found with multi-component programs targeting multiple domains, including parenting, child skills, and teaching practices.

Implications

Strategic Diffusion of Proven Practices

Efforts are needed to develop strategies for the diffusion of empirically validated parent training interventions that have been shown to reduce aggression in young children. Given the importance of high-fidelity implementation to achieve maximal effects, research should focus on

determining optimal strategies for practitioner education and training, and methods for providing ongoing technical assistance and support.

Extension and Evaluation of Multi-Component Programs

Research is needed to evaluate new intervention programs with preschool-aged children. Particularly important are models that link parent-focused, teacher-focused, and child skill-building components, which have proven effective at the elementary school level.

Integration of Early Education and Mental Health Promotion Programs

Given the important interdependence between aggression control and positive social-emotional and language development, preschool programs should include efforts to enhance the competencies of children across the domains of cognitive and social-emotional learning. Efforts may be most effective when agencies and service providers work together across education and mental health disciplines, strategically linking universal educational prevention services (such as those provided by schools) with indicated and selective levels of prevention support (such as parenting interventions provided by mental health and other community agencies) to provide a coordinated and flexible network of prevention support for children and families.

References

1. Campbell SB. *Behavior problems in preschool children: Clinical and developmental issues.* New York, NY: Guilford Press; 1990.
2. Eisenberg N. *Altruistic emotion, cognition, and behavior.* Hillsdale, NJ: Lawrence Erlbaum Associates; 1986.
3. Dodge KA, Bates JE, Pettit GS. Mechanisms in the cycle of violence. *Science* 1990;250(4988):1678-1683.
4. Cairns RB, Neckerman HJ, Cairns BD. Social networks and the shadows of synchrony. In: Adams GR, Montemayor R, eds. *Biology of adolescent behavior and development.Advances in adolescent development: An annual book series,* Vol 1.Newbury Park, CA: Sage Publications; 1989:275-305.
5. Dishion TJ, Skinner M. A process model for the role of peer relations in adolescent social adjustment. Paper presented at: Biennial meeting of the Society for Research in Child Development; April, 1989; Kansas City, MO.
6. Lengua LJ. The contribution of emotionality and self-regulation to the understanding of children's response to multiple risk. *Child Development* 2002;73(1):144-161.
7. Sameroff AJ, Seifer R. Early contributors to developmental risk. In: Rolf JE, Masten AS, Cicchetti D, Neuchterlein KH, Weintraub S, eds. *Risk and protective factors in the development of psychopathology.* Cambridge, MA: Cambridge University Press; 1990:52-66.
8. Webster-Stratton C. Preventing conduct problems in Head Start children: Strengthening parenting competencies.*Journal of Consulting and Clinical Psychology* 1998;66(5):715-730.

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9. Consortium on the School-Based Promotion of Social Competence. The school-based promotion of social competence: Theory, research, practice, and policy. In: Haggerty RJ, Sherrod LR, Garmezy N, Rutter M, eds. *Stress, risk, and resilience in children and adolescents: Processes, mechanisms, and interventions.* New York, NY: Cambridge University Press; 1994:268-316.
10. Zigler E, Taussig C, Black K. Early childhood intervention: A promising preventative for juvenile delinquency *American Psychologist* 1992;47(8):997-1006.
11. Barkley RA. Attention-deficit/Hyperactivity disorder. In: Mash EJ, Barkley RA, eds. *Child Psychopathology.* New York, NY: Guilford Press; 1996:63-112.
12. Greenberg MT, Kusche CA, Speltz M. Emotional regulation, self control, and psychopathology: The role of relationships in early childhood. In: Cicchetti D, Toth SL, eds. *Internalizing and externalizing expressions of dysfunction: Rochester symposium on developmental psychopathology*, Vol 2. Mahwah, NJ: Lawrence Erlbaum Associates; 1991:21-55.
13. Ladd GW. Having friends, keeping friends, making friends, and being liked by peers in the classroom: Predictors of children's early school adjustment. *Child Development* 1990;61(4):1081-1100.
14. Vitaro F, Tremblay RE, Gagnon C, Boivin M. Peer rejection from kindergarten to grade 2: Outcomes, correlates, and prediction. *Merrill-Palmer Quarterly* 1992;38(3):382-400.
15. Kusche CA, Greenberg MT. *The PATHS Curriculum*. Seattle, WA: Developmental Research and Programs; 1994.
16. Weissberg R., Greenberg MT. Community and school prevention. In: Siegel I, Renninger A, eds. *Child psychology in practice*. New York, NY: John Wiley & Sons; 1998:877-954. Damon W, ed. *Handbook of child psychology*; Vol 4. 5th ed.
17. Webster-Stratton C, Hammond M. Treating children with early-onset conduct problems: A comparison of child and parent training interventions. *Journal of Consulting and Clinical Psychology* 1997;65(1):93-109.
18. Webster-Stratton C, Reid J, Hammond M. Social skills and problem-solving training for children with early-onset conduct problems: Who benefits? *Journal of Child Psychology and Psychiatry and Allied Disciplines* 2001;42(7):943-952.
19. Shure MB. *I Can Problem Solve: An interpersonal cognitive problem solving program.* Champaign, IL: Research Press; 1992.
20. Domitrovich CE, Greenberg MT, Kusche C, Cortes R. *Manual for the Preschool PATHS Curriculum*. Philadelphia, PA: Pennsylvania State University; 1999.
21. Bierman KL, Coie JD, Dodge KA, Greenberg MT, Lochman JE, McMahon RJ, Pinderhughes EE. Initial impact of the Fast Track prevention trial for conduct problems: I. The high-risk sample. *Journal of Consulting and Clinical Psychology* 1999;67(5):631-647.
22. Greenberg MT, Kusche CA. *Promoting social and emotional development in deaf children: The PATHS Project.* Seattle, WA: University of Washington Press; 1993.
23. Tremblay RE, LeMarquand D, Vitaro F. The prevention of oppositional defiant disorder and conduct disorder. In: Quay HC, Hogan AE, eds. *Handbook of disruptive behavior disorders*. New York, NY: Kluwer Academic/Plenum Publishers; 1999:525-555.
24. Bierman KL, Coie JD, Dodge KA, Greenberg MT, Lochman JE, Mcmahon RJ. A developmental and clinical model for the prevention of conduct disorders: The FAST Track Program. *Development and Psychopathology* 1992;4(4):509-527.

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