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AGGRESSION

Effective Daycare-Kindergarten Interventions to Prevent Chronic Aggression

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Introduction

Societal concern about antisocial behaviours of children and adolescents has increased over the years, in part due to the enormous financial costs of youth crime,[1,2] as well as the devastating consequences of violence in schools.[3] Conduct problems (especially among boys) are the most frequent childhood behavioural problems to be referred to mental health professionals.[4] Aggressive and disruptive behaviour is one of the most enduring dysfunctions in children and, if left untreated, frequently results in high personal and emotional costs to children, their families and to society in general. A great deal of research has therefore been conducted to investigate the causes, treatment and prevention of conduct problems,[4] often using models emphasizing risk and protective factors addressing children's social competence and contextual family variables as research and intervention frameworks.[5]

Subject

Longitudinal research indicates that young children who develop disruptive behaviour problems are at an elevated risk for a host of negative adolescent and adult outcomes including chronic aggression and conduct problems, substance abuse, poor emotion regulation, school failure, peer problems and crime.[6,7,8] Early-appearing externalizing behaviours can disrupt relationships with parents and peers, initiating processes that can maintain or exacerbate children's behavioural problems.[9] Therefore, very early intervention (e.g., in day care, preschool, or kindergarten) can be important in interrupting the potential path to chronic aggression in children who display aggressive behaviour or who are at risk for developing aggressive behaviour.

Risk factors for aggression in young children include a complex array of child, family and environmental factors that can often operate in additive and interactive ways. At the child level, temperamental features evident in infancy and toddlerhood such as irritability and negative affect, low agreeableness, weak effortful control, high surgency and approach, lack of persistence and low adaptability increase the risk of behaviour problems[10,11,12,13,14] as do certain neuropsychological, genetic and neurobiological traits.[15,16,17,18,19] At the family level, parenting practices including punitive discipline, inconsistency, low warmth and involvement, and physical aggression have been found to contribute to the development of young children's aggressive behaviour.[20,21] Children who are exposed to high levels of discord within the home and whose parents have associated harsh parenting and mental health and/or substance abuse issues are also at heightened risk.[22,23,24] Other important correlates of aggression in children that can contribute to chronic aggression include children's faulty social-cognitive processes affecting their perceptions, goals and decision-making in difficult social interactions, often acquired from their relationships with parents and peers[25,26,27] and rejection from their young peers.[28]

Problem

Early-emerging disruptive behaviour problems tend to be highly stable, can disrupt important developmental processes, and are predictive of negative outcomes in adolescence. Therefore, effective interventions targeting very young children are needed that target malleable risk factors for aggression.

Research Context

Effective day care-kindergarten interventions designed to prevent chronic aggression are essential to the long-term psychological well-being of children between 2 and 5 years of age.

Although some of the current literatures state that children tend to grow out of or see decreases in externalizing behaviours by early childhood,[29,30] other research indicates that some children, especially boys, who exhibit sharp increases in aggressive behaviour between 2 and 3 years of age, tend to exhibit stable levels of aggression as they mature.[31,32] Most of the research which has demonstrated effective school-based aggression prevention interventions has been conducted with children in the elementary and high school years.[33] However, there have been fewer intervention programs designed for children in the 0-5 age period that have been rigorously researched and shown efficacious for aggression prevention.

Key Research Questions

A key research question is whether psychosocial school-based interventions demonstrated to be efficacious in older children can be translated for use in younger children. In addition, research must demonstrate whether psychosocial interventions can be powerful enough to protect against the numerous risk factors shown to influence early childhood aggression such as low socioeconomic status, poor parental attachment, negative parenting practices, and child temperament and genetic factors,[34,35] and whether intervention effects are mediated through changes in parenting practices and in children's emerging self-regulatory abilities. Children as young as 36 months can use metacognitive strategies to alleviate their negative arousal states. As they continue to develop in preschool, and are influenced by the emotion regulation strategies of parents and other adults, their use of regulation strategies becomes more sophisticated.[36,37,38] Thus, the use of psychosocial interventions in this age range appears promising.

Recent Research Results

During the prenatal-to-infancy period interventions such as nurse home visitation programs have been shown to reduce children's early emotional vulnerability,[39] and decrease later criminal and substance use behaviour among high-risk groups through age 12 to15,[40] although the nature of the specific maternal at-risk factors has varied across studies. When the youth reached age 18, the intervention had improved some aspects of youths' academic performance, but did not have overall effects on youth behaviour problems or substance use.[41]

In the post-infancy years, early childhood education settings (e.g., day care, preschool, kindergarten) offer an important opportunity to identify at-risk youth and provide prevention and early intervention programming. In the past several decades, a number of preventive

interventions have been developed and tested for use in early childhood settings to prevent chronic aggression.[42,43]

Universal prevention programs seek to prevent child behaviour problems by teaching all classroom students core social and emotional competencies. The Promoting Alternative Thinking Strategies (PATHS) curriculum provides weekly classroom lessons and extension activities to improve preschool children's social-emotional awareness and behaviour. In a randomized trial with 246 children in 20 Head Start classrooms, children exposed to the PATHS program had higher emotion knowledge skills and were rated as more socially competent and less socially withdrawn at the end of the school year.[44] Another study of preschool PATHS in 113 preschool centers found that PATHS had effects on children's emotion understanding but limited effects on other socioemotional skills and no effects on academic skills.[45] When PATHS was implemented in a more comprehensive way, along with a language and literacy curriculum, as part of the Head Start REDI (Research-based Developmentally Informed) program in a separate study in [44] Head Start classrooms, significant reductions in children's aggressive behaviour were also observed[46] and intervention effects on children's social-emotional functioning continued to be seen through third grade.[47] At a six-year follow-up when children were in 5th grade, children who had received the REDI intervention had better long-term social adjustment and academic engagement than control children but the intervention effects on behaviour problems were no longer significant.[48]

Coping Power Universal (CPU) is a recent adaptation of a targeted prevention program, Coping Power,[5] and has been developed for use as a universal prevention program for preschool classrooms. CPU for preschoolers has 24 weekly sessions delivered by the classroom teacher, and the lessons, following the Coping Power model, focus on self-control, awareness of feelings, awareness of physiological arousal, and problem-solving. The lessons use storytelling, singing, role-play and puppetry. In three randomized control studies, children who received CPU for preschoolers had reduced rates of behavioural difficulties at post-intervention according to both parent and teacher ratings,[49,50,51] and improvements on teacher-rated academic abilities[50] and on standardized[51] academic tests of mathematical and language skills.

Targeted or indicated prevention programs seek to identify children with elevated risk for aggressive behaviour and to alter their developmental trajectories by addressing malleable risk factors. The Incredible Years (IY) Training Program[52] was originally developed as a parent training intervention for parents of children with clinical diagnoses of Oppositional Defiant Disorder and Conduct Disorder. Similar intervention programs that have combined parent workshops with

simultaneous training program for high-risk 2- to 5-year-olds and their siblings, and with a joint activity time for parents and children, have resulted in decreases in oppositional child behaviours, decreases in harsh punishments from parents, and improvements in the effectiveness of parental discipline.[53] IY has subsequently been expanded to include child and teacher components and has been evaluated for use as a prevention tool. Several randomized trials of IY delivered to Head Start teachers and parents[54] have produced favorable effects on reducing child noncompliance and negative behaviours and improving parent competence and child prosocial behaviours,[52] especially for preschool children with more behaviour problems[55] and for boys and children with depressed mothers.[56]

Parent-Child Interaction Therapy (PCIT) is another form of early intervention for preschool-age children with aggressive behaviour. PCIT and related interventions[57] intervene directly with the parent-child dyad.[58] PCIT has been shown to produce lasting improvements in child and sibling behaviours at home and school, as well as improvements in parenting and parent well-being in a number of university-based treatment studies, and has been adapted for use with parents and infants.[59] PCIT has been adapted for use in preschool classrooms and other community settings.[58]

Research Gaps

Despite the emergence of several preventive interventions for aggressive behaviour in early childhood settings, a number of key research gaps remain. First, longer-term follow-up studies are needed to better determine whether prevention programs provided in early childhood settings produce lasting reductions in children's aggressive behaviour. Boisjoli and colleagues[60] found that aggressive boys who participated in a multimodal preventive intervention in kindergarten had better high school graduation rates and generally fewer had criminal records compared to control boys at a 15-year follow-up. These findings are highly promising and suggest that additional studies are needed to further document the range of long-term effects of early preventive intervention, and to identify the mediating child and parent processes underlying long-term reductions in aggressive behaviour. Second, parent training is a critical feature of most preventive interventions for child aggression. However, engaging parents of high-risk youth in such interventions can present a significant challenge. Additional research on strategies for engaging high-risk families and tailoring interventions to fit families' needs, such as the work being conducted on the Family Check-Up,[61] is warranted. Finally, future studies are needed to examine aspects of the training process and host systems that affect the ability of early childhood programs to provide sustained and effective use of preventive interventions for child aggression.[62]

Conclusions

Effective daycare-kindergarten interventions must target the known active risk mechanisms that contribute to the maintenance of aggressive behaviour, especially addressing children's self-regulatory behaviours and parents' behaviours. In the past several decades, classroom-based research has continued to develop on universal and targeted prevention programs for young children. Universal prevention programs for preschool and kindergarten settings have demonstrated that teachers can be trained to assist children's social competence. During the preschool years, psychosocial interventions with parents targeting their parenting practices have immediate effects both on parenting behaviours and on aggressive and noncompliant behaviours among children. Several different models of effective parenting programs have been found for the parents of children in this age group, including parent training workshops, group meetings, and coaching during interactions with children. The latter type of parent–child program that involves coaching has been used more in clinical settings or interventions targeting high-risk families than in large-scale prevention services. Such parenting programs have been combined with classroom-based programs focusing on social-emotional development.

Implications

Several key implications are evident for parents, services and policy. First, schools can indeed offer effective social-emotional learning to children in the preschool settings, but there can be long-term advantages for including tightly linked components that offer psycho-education and collaborative problem-solving to parents. Second, following emerging, innovative trends in intervention research with older aggressive children, intervention with preschool aggressive children should become adaptively flexible, while still retaining implementation with fidelity.[63] Research-based interventions in the years ahead are more likely to be based in the identification of assessed risk factors for each family, which will in turn lead to tailored versions of the intervention in which only relevant portions of the intervention will be delivered to address the identified specific risk factors for a particular child and family.[64,65] Planned capacities to tailor interventions in this way will permit clinicians and preschool and school staff to readily adapt interventions, and this will likely be evident for targeted-child interventions and parent-based interventions. Third, programs offered to parents should not only offer behavioural parent training designed to enhance parents' rewards and antecedent and consequential control of children's behaviour, but should more broadly and collaboratively address parents' developmental expectations for their children, reinforce children's emerging self-regulation, emotion knowledge

and problem-solving skills that are being shaped by the child-focused components of interventions. Parents (and teachers) play a key role in modeling and reinforcing self-regulation strategies. Fourth, preschools should recognize that engaging parents in preventive interventions requires proactive planning, and specialized parent engagement strategies are often necessary. Fifth, the introduction of research-based interventions in typical preschool and agency settings requires careful attention to the intensity of training required for school staff, and to characteristics of the school settings and of the school staff that stimulate implementation of programs with high quality.[61] Finally, in terms of social policy, there is now sufficient evidence to encourage the development of widespread behavioural training programs for parents of preschool-aged children and for preschool classroom-based interventions.

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