Preventive Interventions that Reduce Aggression in Young Children

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Introduction

Over the past five years, the prevention of mental health disorders and promotion of mental health has increased significantly both in North America and abroad. In 1999, the World Federation for Mental Health and the Clifford Beers Foundation (in collaboration with the Carter Center) organized the First World Conference for the Promotion of Mental Health and Prevention of Mental and Behavioural Disorders. In the United States, the most recent report of the US Surgeon General dealt with the subject of mental health and emphasized the importance of prevention.[1] As the science of prevention has expanded and more interventions have proven effective in reducing risk for mental health disorders and in promoting health, there has been a priority shift within governments and private foundations towards funding these types of programs. Consequently, the need for accurate summaries of research information has increased, and numerous reports, reviews, and classification systems have emerged to identify these programs and disseminate information to the public.[2-4]

Subject

Aggression, and the cluster of negative behaviours (such as oppositional behaviour, destructive behaviour) that typically accompanies it, is among the most serious and prevalent childhood mental health problems.[5] Indeed, aggression is often the primary characteristic of both oppositional defiant disorder and conduct disorder.[6,7] Many of the most costly and damaging societal problems (eg, delinquency, substance use, and adult mental disorder) have their origins in early conduct problems. These problems, particularly when they emerge in early childhood, are extremely stable and predictive of poor outcomes. Indeed, approximately half of the children identified with behaviour problems in preschool continue to exhibit the behaviour pattern throughout childhood and into early adolescence.[8,9]

Problems

Aggression, and conduct problems in general, are difficult to prevent because they are determined by multiple factors and are maintained within various ecological systems (family, peer group, school). The risk factors associated with these behaviour problems tend to cluster together and risk factors from a given developmental stage tend to increase risk in subsequent phases.[10,11]

Although genetic and biological risk factors certainly increase risk among some children, environmental conditions greatly increase the risk of child mental health problems, including aggression. Economic and social adversity are directly related to child functioning but also indirectly affect it through various mechanisms, including parental mental health and parenting practices.[12]

Parents of children with behaviour problems tend to have more difficulty managing their children's behaviour. Some parents are more lax or inconsistent in their discipline while others are especially hostile and punitive. These styles can also be found in combination. Many parents who exhibit markedly punitive discipline patterns have relationships with their children that are described as *coercive cycles*. These patterns are especially detrimental for children because they reinforce a negative behaviour pattern and "teach" them that aggression and negative behaviour are effective ways to achieve personal objectives.

Children who display elevated levels of aggression, particularly in more than one setting, are more likely to have difficulty transitioning into school and engaging in the learning process. They have fewer social and emotional skills, which places them at risk for peer rejection. Their negative behaviour also undermines their ability to have positive relationships with their teachers. Negative behaviour, poor engagement, and rejection from adults and other children all undermine academic achievement, which becomes an added risk factor for future maladaptation.

Research Context

A number of child-focused preventive interventions have been developed to reduce behaviour problems in elementary-school-aged children, but there are far fewer interventions for children under age 5. Most of these interventions are conducted with preschool-aged children and their families, owing to several factors. For one thing, there is a developmental increase in children's oppositional and aggressive behaviour around age 2, and it is much easier to reliably assess these behaviours and identify children at risk once they have passed this developmental period (approximately age 4). In addition, since children's cognitive, linguistic, and emotional development show dramatic advances during the preschool period, at this time they are better equipped to learn social and emotional skills that serve as protective factors against the development or continuation of aggressive behaviour patterns.

It is important to note that several preventive interventions, particularly those focused on enhancing children's cognitive skills, have also reduced child aggression.[13-19] This secondary gain highlights the inter-connectedness of systems during the preschool period and illustrates the way in which early risk factors are linked to multiple outcomes.

Key Research Questions

The following important research questions have come to the fore in the field of prevention:

Based on the findings of randomized clinical trial evaluations, what interventions have been proven effective in reducing problem behaviours in young children?

In the studies evaluating these interventions, what proximal outcomes targeted by the intervention were related to changes in children's longer-term behaviour?

Are there certain characteristics in the participants or the implementers of the intervention that influenced the nature of the outcome?

Recent Research Results

It is beyond the scope of this paper to provide a comprehensive summary of all of the programs proven effective in reducing aggression in young children. Readers are therefore referred to two reviews of the literature.[20,21] Overall, interventions intended to reduce aggression fall into three categories:

Interventions that focus primarily on the child and attempt to reduce risk by improving social, emotional, or cognitive skills

Interventions that improve parental functioning, parental childrearing skills, or the quality of the parent-child relationship

Multi-component interventions that integrate several interventions and target multiple contexts. An example of each type of program will be described.

Child-Focused Programs

Very few child-focused programs are delivered alone. At a minimum, most also include a parental component. In general, child interventions are delivered as universal programs within classrooms, or as interventions targeting small groups of children. They typically involve teaching children (social, emotional, or problem-solving) skills or utilizing contingency systems to alter their behaviour. One of the most well-known programs is a problem-solving curriculum called *I Can Problem Solve.*[22-25] This program was evaluated in a clinical trial with a sample of preschool- and elementary-school-aged children. Those who received the intervention generated more effective solutions to problems and exhibited less disruptive behaviour.[26]

Parent-Focused Programs

Given the family risk factors that contribute to the development of child aggression, there has been a strong tradition of working with parents to improve their parenting practices.[27-29] Parent training programs are typically delivered in small group settings. One program that has an extensive research base is the *Incredible Years Training for Parents*.[30] This program is unique because it uses videotapes and written materials to foster positive parent–child relationships, to teach parents how to use positive discipline strategies, and to help parents learn how to support their children's learning and achievement. In one clinical trial evaluation, a sample

of *Head Start* parents participated in the program.[31] Findings indicated that children of the intervention parents exhibited fewer behaviour problems, were less negative, and displayed more positive affect both at the end of the program and one year thereafter.

Multi-Component Programs

While programs that target a single domain are important and useful, they are not as effective as multi-component interventions that integrate a variety of strategies to address multiple sources of risk. One example of an effective multi-component intervention to reduce child aggression is the *First Steps* program.[32] This program includes a comprehensive screening process, which identifies children with elevated behaviour problems during kindergarten. The intervention consists of both a parent training component and a skill-building component for the children. In an evaluation of the program, teachers described intervention children as less aggressive at post-test and follow-up stages, when the children were in first grade.[32]

Conclusions

The field of prevention is growing rapidly. Cumulative evidence has shown that risk factors for a variety of child mental health disorders can be reduced through prevention.[33] Generally speaking, more attention has been paid to preventing conduct problems than to preventing the behaviours associated with internalizing disorders (eg, anxiety). Despite this attention, preventive efforts have only produced modest results and very few studies have actually shown reductions in the prevalence of disorders. In addition, the majority of preventive interventions that target children with behaviour problems have been designed for elementary-school-aged children, rather than younger children. The most robust results have been found in multi-component programs that target multiple domains, changing systems and environments as well as individuals and family units.

Implications

Three words best describe the future of prevention in this domain: *generation, replication,* and *implementation*. Given the relatively high stability of behaviour problems from the preschool years onward, additional strategies to reduce child aggression and conduct problems need to be developed and evaluated in high-quality trials with large sample sizes that represent diverse communities. Of the programs that have been developed, few have been replicated or evaluated by an investigator other than the developer. This is a critical next step after the efficacy of an intervention is established with an initial clinical trial. Without this type of research base for each program it is difficult to make strong conclusions about its efficacy. Given the strong interconnections between cognitive, linguistic, and social development, the development of preschool curriculum models that integrate evidence-based programs across the domains of cognition, literacy, language, and social-emotional learning holds great promise.

Lastly, as practitioners are becoming more aware of the importance of evidence-based programs, the demand for these interventions will increase. As the interventions are disseminated into communities there will also be an ongoing need for research into implementation. Program fidelity is critical in order to ensure that the essential elements of an intervention are delivered. However, practitioners also need to be able to adapt interventions to fit the needs of both the settings in which they are working and the participants in the program. These kinds of decisions should be informed by research. But, to date, very few interventions of this kind have

been evaluated in a comprehensive manner.

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