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Preschool Policy Brief

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Challenging Behaviors and the Role of Preschool Education

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Some research suggests a rise in challenging behaviors among children in early care and education. Among the findings are a high rate of removal from preschool classrooms for behavior problems,[1] a possible link between early non-maternal care and aggressive behaviors in preschool,[2] and concerns from teachers that too many children arrive at school without the social skills required to learn.[3]

This begs the question of the role preschool education plays in regard to problem behaviors—whether under certain circumstances it is a contributing factor or whether it can in fact provide positive experiences that lead to a reduction of challenging behaviors. This policy brief reviews the research in order to answer these questions and makes recommendations that can lead to better behavioral outcomes.

What We Know:

- A challenging behavior is any repeated pattern of behavior that interferes with learning or engagement in social interactions. This includes unresponsiveness to developmentally appropriate guidance and actions such as prolonged tantrums, physical and verbal aggression, disruptive vocal and motor behavior, property destruction, self-injury, noncompliance, and withdrawal.[4]
- Challenging behaviors during the preschool years constitute one of the strongest predictors of later, more serious problem behaviors including delinquency, aggression, antisocial behavior, and substance abuse.
- Participation in early care and education is sometimes linked to higher rates of challenging behaviors, especially in programs of lower quality that do not specifically address the social development needs of young children.
- High-quality preschool education that includes an emphasis on children's social development can reduce rates of challenging behaviors and serve as a long-term protective factor for children at risk for developing challenging behaviors.

Policy Recommendations:

- High-quality preschool education should be provided so all children have the opportunity to develop positive social skills.
- Teacher training and technical support in the area of children's social and emotional development and classroom management should be provided, ideally on an on-going basis.
- No preschooler should be expelled from an early childhood program. With the right supports for teachers and a differentiated approach that provides additional layers of the "teaching pyramid" for at-risk children, this ultimate form of "discipline" can be prevented.
- Universal, classroom-based curricula that include social skills teaching should be viewed as the base tier of a teaching pyramid that serves all children. Children who struggle with challenging behaviors should receive additional tiers that provide intentional teaching of social problem-solving and other pro-social skills as well as interventions from experts and family members as needed.
- Developmentally appropriate screening for early identification of problems is essential.

Prevalence, Development and Trajectory of Aggression

A growing body of research points to links between challenging behaviors in early childhood and later negative developmental and social outcomes. Studies have shown that early behavior problems are associated with delinquency,[5] persistent aggression and antisocial behavior,[6] and substance abuse.[7] Yet, it is important to note that not all children who exhibit problem behaviors, especially aggression, in early childhood maintain these behaviors over time.[8] Research has begun to investigate the possible trajectories of early onset aggression in order to distinguish normal peaks in aggression (typically in the toddler and preschool years) from those that lead to long-term pathological behaviors.[9] In one study, researchers working with more than 300 children found that although some outgrew

their disruptive disorder, many did not.[10] Similarly, a study of low-income mothers and their children found moderate stability in aggression for boys and non-compliance for girls between 1 and 5 years of age.[11] In other words, aggressive children continued to be aggressive throughout the period of the study. Finally, work from the large-scale National Institute of Child Health and Human Development (NICHD) Study of Early Child Care identified five typical trajectories of aggressive behavior. Three of these trajectories involved moderate to high levels of aggression at some point, but only a small portion of children (3 percent of the participants) followed a path of high and sustained level of aggression from age 24 months to third grade.[12]

Because of the potentially serious

consequences of behavior problems in young children, both for the individual as well as the larger society, researchers have also begun to examine the precursors of the development of challenging behaviors. This literature[13] has documented key risk factors for children's challenging behaviors including poor prenatal environment such as exposure to drugs/alcohol and maternal malnutrition,[14] family poverty,[15] and negative parenting practices such as harsh discipline and maternal insensitivity.[16] Research also shows that behavioral challenges frequently occur in the presence of language delays[17] and often comprise multiple symptoms from several clinical diagnoses including Attention Deficit Hyperactivity Disorder, Oppositional Defiant Disorder, and Conduct Disorder.[18]

Early Care and Education and Aggression

Since the 1970s and 1980s,[19] questions have arisen about the link between participation in non-maternal early care and education settings and challenging behaviors. Although numerous studies have examined this,[20] many of them were small in scale, failed to take into account family background factors or quality of care, and offered conflicting findings. In part to address this debate, one of the largest child care investigations, the NICHD Study of Early Child Care, began in the early 1990s.[21] This study of 1,300 children who were followed from birth through grade school, gathered child care data at multiple points over the first 5 years of life. Results indicate that 4.5-year-old children with more child care experience demonstrated higher levels of externalizing behavior problems such as aggression and disobedience than did children who spent fewer hours in non-maternal care. This held true even in higher quality child care settings. However, some have questioned how widely this finding can be generalized, in part because the variability in quality of care in this study was not large enough to truly detect meaningful differences.[22] In addition, it cannot be ruled out that the causality runs in the opposite direction, with challenging behaviors leading to increased time in child care or that some other unmeasured family background characteristic accounts for both increases in difficult behaviors and time in child care. It is also important to note that the higher levels of externalizing behaviors seen at age 54 months were not evident when the same children were younger (age 2 and 3),[23] nor was it evident once the children were in third grade.[24] By sixth grade, the link between early child care experience and later externalizing behaviors was limited to those children who attended center-based (as opposed to home-based or relative care) settings for more than two years.[25] In addition, effect sizes were small (i.e. not

approaching clinical levels of problematic behavior) and were much less than those associated with parenting or family characteristics.

Evidence for a possible link between preschool experience and challenging behaviors also comes from work examining cortisol, a hormone that serves as a measure of stress in children in child care. A review of nine studies found a rise in cortisol in children who are in group care settings (even high-quality settings) when compared to children in home care.[26] This finding may be related to the pressures of being in a group setting and dealing with "social threats" for many hours each day. It is not yet clear whether these elevated cortisol levels put children at risk for later health problems or whether they relate to significant behavioral challenges. Still, they do suggest that when behavior problems are detected in preschool settings, they may be due, at least in part, to children's difficulty coping with social pressures in a group setting for extended periods of time.

Findings from a longitudinal demonstration program for preschool children also suggest that participation in preschool, even a high-quality program, can be related to problem behaviors in children. In the Abecedarian program, which involved a randomized trial of a comprehensive child care program for African-American children from birth through age 5, researchers documented an increase in behavior problems in program participants once they reached elementary school when compared to the children who did not attend.[27] In response to this, developers revised the curriculum to include more of a focus on social skill development and support for teachers in this developmental area. Once these changes were implemented, the increase in challenging behaviors among program children was not found.

Finally, a recent large-scale investigation examined the troubling practice of removing children exhibiting challenging behaviors from preschool classrooms. In a sample of nearly 4,000 preschool classrooms from 40 states, 10.4 percent of preschool teachers reported that at least one child had been removed from their classrooms[28] because of behavior problems in the previous 12 months.[29] This removal rate is high compared to rates for kindergarten through twelfth grade students and raises concerns about children's challenging behaviors in the preschool setting. It also leads to questions about how to improve social skills teaching practices as was successfully done in the Abecedarian Project.

Preschool Education as an Ameliorating Factor

Serving as a counterbalance to the evidence suggesting that preschool participation may contribute to the development of challenging behaviors is a wealth of research suggesting the opposite. This research shows that appropriate preschool education can actually serve as an ameliorating factor for children at risk of developing challenging behaviors. Some of the most compelling evidence comes from a variety of longitudinal evaluations of high-quality early childhood education programs for high-risk children. For example, in the High/Scope Perry Preschool Program,[30] at-risk African American children were randomly assigned to either receive the program or serve in the control group. Those in the program group participated in an intensive preschool program for 2 ½ hours, 5 days a week during the school year beginning at either age 3 or 4. The program was taught by highly qualified teachers and included home visits by teachers each week, as well as parent group meetings. The children in this program evaluation have now been followed through age 40, and one of the strongest findings has been a reduction in adolescent and adult crime rates. These effects are striking not only because they have endured over the lifetime of the children, but because of the substantial economic savings to the community that accompany lower crime rates.[31]

Similar benefits from early preschool experience are documented by the long-term study of the Chicago Child-Parent Centers.[32] This program, which offers preschool and kindergarten programs, continued intervention in early elementary school, and family support services for low-income children, was implemented with 1,500 children. Long-term follow-up data with program and control children show that by age 24, children who had participated in the programs were more likely to have finished high school and be attending college, less likely to be arrested for a felony or incarcerated, and less likely to have depressive symptoms (in addition to cognitive gains).[33]

In recent years, large-scale and comprehensive research has been conducted on Head Start (one of the nation's oldest early intervention programs) and Early Head Start (a more recent expansion of the Head Start program to children from birth through age 3). Results from these investigations indicate that these early education programs are effective at addressing the social needs of very young children. The Family and Child Experiences Survey (FACES) study found improvement in the challenging behaviors of Head Start children over the program year.[34] A national randomized trial of Head Start found that one year of the program reduced behavior problems and hyperactive behavior for 3-year-olds, but did not find statistically significant effects for 4-year-olds.[35] Similarly, the national evaluation of the Early Head Start[36] program (involving a random assignment of 3,000 children and families to program or control groups) found that participants in Early Head Start show less aggression at age 3 than control group children.[37]

Finally, evidence for the potential ameliorating effects of participation in early care and education on the development of challenging behaviors also comes from large studies outside the United States. In a large-scale study of nearly 3,500 Canadian 2- and 3-year-olds, researchers found that aggression was significantly higher in children from high-risk families who are *not* in child care when compared to the child care group.[38] These data suggest that early childhood programs can provide protective factors for children in high-risk families through enrichment or by diluting the exposure to a high-risk environment and increasing opportunities for learning not available at home.

Social Skills Curricula for Preschool Children

A number of research-based preschool social skills curricula with ample evidence of their efficacy are available for use in early childhood programs.[39] Below is a sampling of these programs and the evidence for their effectiveness. For more information about evidence-based curricula, see reviews by Joseph and Strain (2003) and Bryant et al. (1999).[40]

Incredible Years: Teacher Training Program
(Webster-Stratton)[41]

The Incredible Years Teacher Training Program involves 36 hours of training (six monthly one-day workshops) that focuses on positive management and discipline strategies, and promoting social competence in the classroom.[42] In an evaluation of the program,[43] 14 Head Start centers (61 teachers in 34 classrooms) were randomly assigned to the Incredible Years Program (for parents, teachers, and family services workers) or the control group. Results showed that children in classrooms where the programs were used demonstrated significantly fewer conduct problems at school than control children. In addition, teachers who received the program showed significantly better classroom management skills than teachers who did not. Similar benefits were documented in an evaluation of the Incredible Years training programs with 159 families of 4- to 8-year-old children.[44] In this study, children in Incredible Years classrooms showed lower rates of noncompliance and aggression than children in classrooms without the teacher training.

Promoting Alternative Thinking Strategies (PATHS) Curriculum
(Kusche & Greenberg)[45]

The preschool PATHS curriculum uses the teaching of skills, as well as the creation of meaningful real-life opportunities to practice and generalize skills, in order to reduce behavior and emotional problems and enhance social-emotional competence in young children. Lessons are delivered once a week (30 lessons total) and cover themes such as compliments, basic and advanced feelings, self-control strategies, and problem solving. A randomized trial with 246 children from two Head Start programs (10 intervention classrooms and 10 control classrooms), showed promising results. Intervention children demonstrated more emotion knowledge skills (e.g., emotion vocabulary, ability to identify facial expressions, less bias toward misidentifying emotional expressions as angry) than did children not exposed to the program. In addition, both parents and teachers rated intervention children as more socially competent compared to control children. The intervention children were not, however, better at problem solving than were their control counterparts. Children in the PATHS program were less likely to be rated as socially withdrawn, but they were no different than control children on ratings of externalizing behaviors.[46]

Positive Behavior Support
(Fox, Dunlap, & Powell)[47]

Positive Behavior Support is one of the most widely used and well-documented approaches for encouraging pro-social skill development and decreasing challenging behaviors in young children.[48] It typically employs functional assessment, a process for gathering information about the context of the child's challenging behaviors in order to maximize its effectiveness and efficiency in meeting the individual needs of the child. Its components include:

- Modifications of the physical and/or social environment to decrease the triggers of challenging behaviors;

- Strategies for teaching new skills through guidance, prompting, and reinforcement in naturalistic settings; and

- Positive reinforcement[49] and descriptive feedback to increase and maintain the use of new skills and appropriate behavior.

The usefulness of this approach has been documented in a variety of naturalistic settings including homes and classrooms,[50] but only recently with a preschool population. However, preliminary evidence with preschool children shows promise. For example, in one study of Positive Behavior Support for children in community preschool programs, researchers documented its effectiveness for reducing problematic behaviors with two female children identified by teachers as in need of additional support.[51] A case study of PBS implementation in a large Head Start program found that teachers felt more confident in their ability to support children with challenging behaviors, decreased their reliance on outside mental health consultants, and eliminated the use of "time out" as a discipline strategy.[52]

Self Determination Intervention
(Serna & Nielsen)[56]

The Self Determination Intervention program employs a story and song format to teach direction following, sharing, and problem solving to preschool children. The curriculum was implemented by a master's level university interventionist, with assistance from the teacher, with 53 children in three Head Start classrooms over a 12-week period.[57] Two three-hour sessions were taught each week and were reinforced by teachers in the natural classroom environment and by parents who participated in three training sessions. Thirty-one children in two other classrooms served as a comparison group. Results from pre- and post-tests showed a significant decrease in behavior problems and an increase in adaptive skills in children who participated in the program.

Social-Emotional Intervention for At-Risk 4-Year-Olds
(Denham & Burton)[58]

In this intervention, teachers are trained to deliver a multi-component program that involves relationship building between the teachers and children, teaching children emotional knowledge and strategies to control negative feelings. Children are also taught interpersonal cognitive problem-solving skills using the evidence-based I Can Problem Solve program.[59] The program was implemented over a 32-week period with 70 children in seven child care classrooms. An additional 60 children from the same programs, but different classrooms, served as a quasi-experimental comparison group. Results showed that children in the intervention classrooms showed decreases in negative emotion, initiated more positive peer activity, and improved socially (as judged by their teachers) compared to non-intervention children.

Second Step
(Committee For Children)[53]

The Second Step curriculum is a universal intervention program designed to teach empathy, impulse control, and social problem-solving skills to children in preschool through middle school. Teachers are trained to use large photograph cards of children in various social situations as a basis for teacher modeling and children's role playing. These activities are designed to introduce concepts and enable children to practice new skills. A parent component, wherein parents are encouraged to reinforce Second Step concepts at home, is also included. The curriculum was used as part of the larger Preschool Behavior Project, and results from this study have not yet been published.[54] However, research on the Second Step curriculum with second- and third-grade school children suggests that children in participating classrooms show a decrease in observed aggression and an increase in neutral and/or pro-social skills. There were no differences in parent or teacher ratings of these behaviors.[55]

Important Components Across Curricula

While diverse curricula are available for addressing social development in early childhood, research comparing the effectiveness of one curriculum with another is rare. Studies to date do suggest some commonalities among the many approaches to addressing children's social needs. First, comprehensive curricula that embed social skills within a larger curriculum in a high-quality program appear to be effective for the general preschool population. The evidence is particularly strong for children at risk due to socio-economic disadvantage. Enhanced development of language skills, executive function, awareness of emotions, and social skills together may well contribute more to improved social behavior and decreased physical aggression than targeting improved behavior in isolation.

In addition to the studies cited earlier, Head Start research showing that programs using integrated curricula—in particular the High/Scope or Creative Curriculum—are higher in quality, also supports this approach. Children in these classrooms showed more gains in social skills when compared to children in programs not using these comprehensive curricula.[60] Similarly, a randomized trial of a Vygotskian curriculum, *Tools of the Mind*, that emphasizes the development of self-regulation in a broad educational context, found that this curriculum substantially decreased behavior problems.[61] These findings are further supported by a long-term evaluation of three curricular approaches. In that instance, High/

Scope, with its emphasis on cognitive and social problem solving and a balance between teacher-directed and child-initiated activities, was evaluated alongside Direct Instruction, with its teacher-led focus on academic skills, and Traditional Nursery School, with its emphasis on socialization and free play. The evaluation showed that long-term social outcomes for children in the Direct Instruction group, where an emphasis on social development was lacking, were poor compared to the other two.[62] In particular, children who experienced Direct Instruction demonstrated more behavior problems in high school, and higher rates of being suspended from work or for being arrested by age 23. Finally, research also suggests benefits to programs that include multiple components. Those benefits accrued when there was a focus on all domains and on the quality of children's problem-solving responses as opposed to the quantity of the solutions they generated,[63] and involved families as well as educators.[64]

High-quality preschool programs are critical to meeting the general needs of all preschool children. However, more targeted approaches must be geared towards meeting the needs of children who struggle with behavioral challenges. Fox and Lentini's Teaching Pyramid[65] is useful in this context. In this approach, the base of the pyramid emphasizes the development of positive relationships with children and families. It also suggests typical good practice in the area of social and emotional development such as

making expectations clear and providing a balance between active and quiet times and teacher-directed and child-initiated activities. The next level of the pyramid focuses specifically on the needs of at-risk children and includes techniques such as intentional teaching of social problem-solving strategies and other prosocial skills. Finally, the top of the pyramid includes more intensive procedures involving family members and experts whose efforts are targeted toward individual children with persistent behavior challenges. The key point is that both general and more targeted strategies, depending on the needs of individual children, are needed in any early education setting.

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Related to this differentiated approach is the need for appropriate developmental screening. It is critical to identify at-risk children early so that targeted approaches can be implemented early in a child's life. As Richard Tremblay, noted researcher in the area of childhood aggression, points out "…most children learn alternatives to physical aggression during their preschool years. Therefore, this period of childhood is probably the best window of opportunity for helping children at risk of becoming chronic physical aggressors to learn to regulate their comportment."[66] Recent work on early identification techniques is promising and includes multiple-gating procedures to identify children most at risk.[67] These techniques begin by screening all children, and then provide more intensive screening procedures for children who meet criteria for the first or later "gates" of the assessment. However, more work is needed on early identification techniques to better understand the appropriateness of specific instruments for particular populations, as well as to further define criteria and definitions of problematic behavior.[68] In addition, screening mechanisms need to address the challenge of identifying "false positives" (problematic behaviors that reflect self-correcting, normative behaviors) from genuine behavior problems truly predictive of later problematic outcomes.[69]

Providing technical support for teachers when implementing any strategy is important. Some have suggested that teachers in early childhood education struggle to deal with behavioral challenges in part because of insufficient training and a lack of on-going support from supervisors and interventionists.[70] Evidence from small-scale studies supports this claim. In a study of children with autism, rates of positive social interaction increased when teachers received technical assistance and feedback in implementing naturalistic strategies for increasing social interactions.[71] The increase was not as apparent when teachers received the training, but did not receive individualized support for implementing the strategies in the classroom. Similarly, research has documented greater changes in children's positive social behavior in a Head Start classroom where the teacher received a social skills curriculum, McGinnis and Goldstein's Skillstreaming program,[72] along with direct consultation about program implementation. Where the teacher received support, positive changes in the children were greater than in the classroom where the teacher only received the curriculum materials, but no curriculum instruction.[73] More generally, having access to a mental health consultant can be useful for teachers, as demonstrated by the lower rates of children being terminated from a program in classrooms where teachers benefit from this support.[74] Finally, teacher support may be especially effective when it occurs as part of a program-wide commitment to training.[75]

Conclusion

The issue is not whether preschool is "good" or "bad" when it comes to children's challenging behaviors. Just as there is good and not-so-good parenting, there is good and not-so-good early childhood care and education. What is important is that the early childhood education experience be of high quality. In regard to challenging behaviors, high quality means paying special attention to the social-emotional needs of children spending long hours in the presence of a group of peers. Child care that does not adequately address the social-emotional needs of young children runs the risk of contributing to the development and expression of challenging behaviors. Any curriculum implemented in an early childhood education setting needs to include, along with a cognitive and academic focus, an emphasis on the development of social and emotional skills. Teachers, other professionals and parents must then build on that strong curricular base by providing additional layers of the teaching pyramid that address specific needs of children who exhibit or are at risk for developing challenging behaviors. These may include intentional teaching of social problem-solving and other pro-social skills and intervention by therapists, psychologists and other professionals. Only then will we be able to meet the comprehensive needs of preschoolers and prepare them to be lifelong learners and productive adults.

Child care that does not adequately address the social-emotional needs of young children runs the risk of contributing to the development and expression of challenging behaviors.

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[49] In recent years, the use of praise in teaching young children has been called into question because it: 1) Manipulates children in order to maximize adult convenience; 2) Creates expectations of praise, turning children into "praise junkies"; 3) Steals the child's pleasure by telling him or her how to feel; 4) Results in less interest, not more and; 5) Reduces achievement (see Kohn, A. [2001]. Five reasons to stop saying "Good job!" *Young Children, 56*(6), 24-30.). The adaptation of these ideas has prompted many early childhood teachers to change the way they interact with young children, including strategies for dealing with challenging behaviors. However, the switch away from "good job" language is not without its criticisms from Positive Behavior Support advocates. They contend that Kohn's arguments misrepresent the positive behavior support field which advocates for positive, descriptive feedback that goes beyond a simple "good job." They also contend that Kohn's arguments fail to account for years of research supporting positive behavior techniques when used appropriately, and that he presents non-validated alternative strategies (see Strain, P.S. & Joseph, G. E., [2004] A not so good job with "Good job!": A response to Kohn 2001. *Journal of Positive Behavior Interventions, 6*(1), 55-59 for further discussion). What both sides of this debate seem to have in common, however, is the need for adults to encourage young children's development in supportive and meaningful ways.

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