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## Preschool Policy Brief

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# Promoting Children's Social and Emotional Development Through Preschool Education

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Children need a combination of intellectual skills, motivational qualities, and socioemotional skills to succeed in school.<sup>1</sup> They must be able to understand the feelings of others, control their own feelings and behaviors, and get along with their peers and teachers. Children need to be able to cooperate, follow directions, demonstrate self-control, and “pay attention.” Unfortunately, many students preschool experiences do not fully support their social and emotional development. This policy brief describes the importance of social and emotional development for children in their earliest years and as they grow older and describes the characteristics of those preschool education programs that best support these aspects of development.



## What We Know:

- Kindergarten teachers say that about 20 percent of children entering kindergarten do not yet have the necessary social and emotional skills to be “ready” for school. Of very low-income children, as many as 30 percent may not have the necessary skills.
- Social and emotional development is important both in its own right and because aspects of it facilitate cognitive development.
- When children are young, the adults around them (parents, other adult caregivers, preschool teachers) are the most important influences on their social and emotional development.
- High-quality preschool education can support early development in ways that yield long-term social and emotional benefits. A significant part of the long-term economic pay-off to public investments in high-quality preschool programs can come from their social outcomes, including the prevention of crime and delinquency.

## Policy Recommendations:

- Establish as a key goal of preschool education programs enhancing social and emotional development, without de-emphasizing cognitive development. Both domains are important, and neither should be sacrificed for the other.
- Include in learning standards the outcomes that preschool programs are expected to achieve for social and emotional development.
- Expand access to high-quality preschool education so that more children can benefit from experiences that will improved their social and emotional development.
- Ensure that preschool education programs are high-quality because only high-quality programs adequately support children's social and emotional development.
- Provide administrators and teachers with technical assistance and training to help them implement effective curricula and teaching practices supporting social and emotional development.

Knowing the ABCs is not enough. To be prepared for school, children also must be excited and curious about learning and confident that they can succeed (motivational qualities). They must be able to understand the feelings of others, control their own feelings and behaviors, and get along with their peers and teachers (socioemotional skills). Indeed, kindergarten teachers rate these motivational and socioemotional skills as more important to school success than being able to hold a pencil or read.<sup>2</sup> They want children to be ready for learning—to be able to cooperate, follow directions, demonstrate self-control, and “pay attention.”

Unfortunately, kindergarten teachers report that many of their students are not socially or emotionally prepared for the challenges of the new environment.<sup>3</sup> Kindergarten teachers rate about 20 percent of all entering kindergarteners and 30 percent of very low-income entering kindergarteners as having poor social development.<sup>4</sup> They enter kindergarten unable to learn because they cannot pay attention, remember information on purpose, or function socially in a school environment.<sup>5</sup> The result is growing numbers of children who are hard to manage in the classroom.<sup>6,7</sup> These children cannot get along with each other, follow directions, or delay gratification. They show belligerence and aggression in the classroom and on the playground. The problems begin before kindergarten: In some studies as many as 32 percent of preschoolers in Head Start programs have behavioral problems.<sup>8</sup>

*The core features of emotional development include the ability to identify and understand one’s own feelings, to accurately read and comprehend emotional states in others, to manage strong emotions and their expression in a constructive manner, to regulate one’s own behavior, to develop empathy for others and to establish and sustain relationships.*

—National Scientific Council on the Developing Child (2005)

These missing social and emotional skills mean that teachers spend too much of their time trying to rein in unmanageable children and too little time teaching.<sup>9</sup> Early childhood teachers report that they are extremely concerned about growing classroom management problems,<sup>10,11</sup> and that they are ill-equipped to handle them.<sup>12</sup> Kindergarten teachers report that more than half of their students come to school unprepared for learning academic subjects.<sup>13</sup> If these problems are not addressed, the result can be growing aggression, behavioral problems and, for some, delinquency and crime through the school years and into adolescence and adulthood.

## Social and Emotional Development: Definitions and Importance

Social and emotional development involves the acquisition of a set of skills. Key among them are the ability to:

- identify and understand one’s own feelings,
- accurately read and comprehend emotional states in others,
- manage strong emotions and their expression in a constructive manner,
- regulate one’s own behavior,
- develop empathy for others, and
- establish and sustain relationships.<sup>14</sup>

Each of these skills develops on its own timetable, but the skills build on one another. Very young children, for example, have to learn to understand and recognize their own feelings, but then they gradually learn to associate verbal labels to those feelings, to learn that others have feelings too, and to begin to empathize with others. As children grow older, they learn to manage their emotions—to shake off feelings of anxiety, sadness, or frustration, and to delay gratification in order to achieve a goal.<sup>15</sup> As adults, those skills help differentiate the mediocre salesman from the successful one who can read the emotional response of a prospective client. They help athletes persevere until they win their gold medals. They help spouses empathize with one another to de-escalate arguments, and they impel good citizens to shy away from injuring others because they can understand how such actions would cause pain.

One of the most important skills that children develop is **self-regulation**—the ability to manage one’s behavior so as to withstand impulses, maintain focus, and undertake tasks even if there are other more enticing alternatives available. Self-regulation underlies the ability to undertake every task, so that it has implications for not just how children get along with one another but also how they can focus and learn in the classroom. (See sidebar, p. 4.)

In short, these skills help promote a range of positive behaviors, beginning before children enter kindergarten and extending into adult life. Not surprisingly, when social and emotional development goes awry, the result can be problems in school and later life.

### Problems in Social and Emotional Development: The Beginnings of Aggression

Persistent physical aggression, high-school dropout rates, adolescent delinquency, and antisocial behavior have all been associated with early childhood conduct problems.<sup>16</sup> The preschool years are a “sensitive period” for learning to regulate development of aggression.<sup>17</sup> Children who exhibit high levels of physical aggression in elementary school are at the highest risk of engaging in violent behavior as adolescents. Researchers believe that children with difficult, disruptive behavior (poor social and emotional skills) are at risk for these later problems for at least three reasons: (1) teachers find it harder to teach them, seeing them as less socially and academically competent, and therefore provide them with less positive feedback; (2) peers reject them, which cuts off an important avenue for learning and emotional support; and (3) children faced with this rejection from peers and teachers tend to dislike school and learning, which leads to lower school attendance and poorer outcomes.<sup>18,19</sup>

Because difficult behavior exhibits itself early—even before children begin kindergarten—the pattern of rejection and negative experiences begins early, too.<sup>20</sup> The early experience of rejection can have lasting emotional and behavioral impacts beyond elementary school, creating a downward spiral that becomes increasingly difficult to reverse.

## Social-Emotional Self-Regulation: A Key to School Readiness

One of the most important skills that children must develop is self-regulation. Self-regulation is a deep, internal mechanism that underlies the mindful, planful, and thoughtful behaviors of all children. It underlies performance in all domains, from reading to getting along well with others.

Self-regulation is the capacity to control one's impulses both to stop doing something that is unnecessary (even if one wants to continue doing it), and to start doing something that *is* needed (even if one does not want to do it). This ability to inhibit one response and to enact another on-demand is a skill used in thinking as well as social interactions. The child who does not have self-regulation at 5 years of age is the child who cannot follow the teacher's directions at age 6 or who cannot plan how to solve a problem at age 7. The child without self-regulation of emotions at age 4 will not be able to control his temper at 5 and will have negative peer interactions at age 7.

### Self-Regulation and School Readiness

Self-regulation is necessary for positive social relations with others and for successful learning. To learn anything in a school setting, a child has to ignore the child next to him who is fun to play with and make his mind concentrate on the story the teacher is reading. The abilities to pay attention and to remember things on purpose are also part of self-regulation.<sup>21</sup>

The role of self-regulation in school success—from preschool and kindergarten to middle and high school—has now been documented in a number of studies.<sup>22</sup> Levels of self-regulation actually predict school success in first grade over and above children's cognitive skills and family background.<sup>23</sup> Cognitive self-regulation is linked with students' achievement in school.<sup>24</sup> Children lacking emotional self-regulation are at higher risk for disciplinary problems and are less likely to make a successful transition from preschool to kindergarten.<sup>25</sup> Emotional self-regulation seems to play a part in child resiliency and later adjustment.<sup>26</sup> Children who did not learn self-regulation in preschool can turn into bullies with aggressive habits of interaction that are difficult to break in later years.<sup>27,28</sup>

New studies demonstrate that there is a physiological basis for the development of self-regulation. Brain research shows that self-regulation is linked to maturation of the prefrontal cortex area of the brain, which occurs during the preschool years.<sup>29,30</sup> Both emotional and cognitive self-regulation seem to have the same neural roots, making it possible for children to take control of both their thinking and their feelings as they grow older and their brains develop. Based on other brain research, we believe that preschoolers must practice self-regulation if they are to develop finely tuned skills. Generally, if children do not practice deliberate and purposeful behaviors, traces in the brain are not reinforced (“use it or lose it” principle). So, if preschoolers do not practice self-regulation enough, the related brain areas will not be fully developed, and the end result may be adults who still act like they are in their “terrible twos.”

### Practice Makes Perfect

Evidence indicates that self-regulation and impulse control does not emerge spontaneously, but is learned.<sup>31</sup> Most important, it can be learned not just in families, but also in preschool classrooms. In fact, in many good quality programs, children do learn self-regulation. In these high-quality preschool programs, teachers set up the preschool environment so that children begin to think ahead, to plan their activities, and to think about and use strategies to solve social problems.<sup>32</sup>

Without intervention, the troubles born out of problems in social and emotional development create high costs for society in terms of juvenile delinquency and adult crime. Close to 2.3 million juveniles were arrested in 2002,<sup>33</sup> more than 134,000 juveniles were held in residential facilities in 1999, and about 12,000 juveniles were incarcerated in adult jails or state prisons as of mid-year 2000.<sup>34</sup> At year-end 2003, 6.9 million persons (3.2 percent of all U.S. adults) were on probation, parole, or in prison or jail.<sup>35</sup>

## **How Social and Emotional Skills Develop**

Promoting social and emotional development and preventing problems caused by maladaptive development is clearly important to individuals and to society, but how do those socio-emotional skills develop? They begin with the relationships children form with the people around them, including parents, caregivers, and peers.

### **The Role of Parents**

Parents and families play an enormous role in shaping a child's social and emotional development. Early relationships with parents lay the foundation on which social competency and peer relationships are built. Parents who support positive emotional development interact with their children affectionately; show consideration for their feelings, desires and needs; express interest in their daily activities; respect their viewpoints; express pride in their accomplishments; and provide encouragement and support during times of stress.<sup>36</sup> This support greatly increases the likelihood that children will develop early emotional competence, will be better prepared to enter school, and less likely to display behavior problems at home and at school.<sup>37</sup> This is why many preschool programs include a focus on parent involvement and parenting education.

### **The Role of Teachers/Early Childhood Educators**

Most children spend many hours each week in the care of someone other than their parents. These caregivers play the same role in promoting social and emotional development as do parents when children are young. Just as parents who are warm and responsive are more likely to promote strong social and emotional skills in their children, so too are early childhood educators and teachers, which means that the classroom environment must enable teachers the time to focus on individual children. Just as it is important for a consistent attachment to form between a parent and child, so too is such an attachment important for caregiver and child. That means that staff turnover in preschool programs should be kept to a minimum.<sup>38, 39</sup>

### **The Role of Peers**

Emotionally healthy children engage in positive play behaviors, develop mutual friendships, and are more likely to find acceptance from their peers. Through their play, they learn how to work in teams and cooperate with others. Their behavior and interactions influence the way in which teachers perceive them and the way they are treated by their peers. As early as preschool, the relationships children develop with one another can have a lasting impact on academic achievement, because they can contribute to more positive feelings about school and eagerness to engage in classroom activities, which can, in turn, lead to higher levels of achievement.<sup>40</sup> Conversely, early rejection by peers has been associated with persistent academic and social difficulties in elementary school.<sup>41</sup> That is why it is important to have skilled preschool teachers who can intervene when they see children having difficulties with peers and help the children learn how to resolve conflicts, regulate emotion, and respond to the emotions of others.<sup>42</sup>



## Evidence that Preschool Influences Social and Emotional Development

Convincing evidence exists that high-quality preschool positively affects social-emotional development. Across hundreds of studies of immediate and short-term outcomes, impacts of early education on factors such as self-esteem, motivation, and social behavior are positive, and range from about .25 to .40 of a standard deviation—a meaningful impact.<sup>43</sup> Other studies demonstrate that quality preschool produces long-term benefits in terms of improved classroom behavior and social adjustment and decreased future crime and delinquency. These successful programs all deliver high-quality center-based early childhood education services, but they differ in some ways, too. Some focus on 3- and 4-year-olds only, while others serve children from birth to 5, and some offer parent education or family support services in addition to center-based early childhood education.

A small group of studies suggest that too much time in an early childhood program, particularly in a low-quality setting, may actually increase children’s aggression levels slightly, but the bulk of the positive evidence for preschool is compelling and derives from a variety of studies, beginning with demonstration programs that were implemented decades ago and continuing to present-day demonstration programs and large-scale programs, both in the United States and abroad.

### Evidence from Demonstration Projects

Some of the strongest evidence for the benefits that preschool programs can produce on children’s social and emotional development is derived from demonstration projects begun in the 1960s and 1970s.

*The High/Scope Perry Preschool Project.* The High/Scope Perry Preschool Project,<sup>44</sup> initiated more than 40 years ago, was one of the first studies to provide a clear picture of the effects of early, high-quality preschool on educational, social, academic, and economic outcomes. Three- and 4-year-olds from low-income families (n=123) were randomly assigned to either a program or no-program group. Those in the program group experienced a well-designed preschool program, which included weekly home visits that encouraged parent-child interaction.

A recently released report of outcomes through age 40 confirms the economic benefits of investing in the education of young children.<sup>45</sup> Throughout their school years, the children from the program group outperformed the control group on achievement tests, had better attitudes about school, and were more likely to graduate from high school. As adults, the preschool participants attained higher levels of education and were more likely to vote in elections, find and maintain employment, and own their own homes, than children in the control group. The program group also averaged significantly fewer criminal arrests, including fewer arrests for drug-dealing crimes, and relied less on welfare or other social services as adults. From an economic standpoint, the program benefited the general economy with a 17 to 1 return on the original investment. This includes savings in the costs of crime, special education or retention in school, and welfare, as well as increases in taxes paid by those earning higher incomes.<sup>46</sup> Much of that return on investment is attributable to decreased costs of crime—an outcome clearly linked to social and emotional development. These data provide convincing evidence that providing more funding for preschool programs today will result in substantial social and economic gains in the future.

*The Syracuse University Family Development Research Program.* This program offered education, nutrition, health and safety, and human service resources to low-income, primarily African-American families (n=108) from 1969-1975. Services included weekly home visits, high-quality child care (one-half day five

days per week for children 6 to 15 months of age, and full-day care five days per week for children 15 to 60 months of age); and weekly parent group meetings. Services began prenatally and continued until children reached elementary school age. At follow-up, when children were 13-16 years old, 6 percent of the intervention group versus 22 percent of the matched comparison group children had been processed as probation cases (juvenile delinquency) by the County Probation Department, and the cases for the youth in the comparison group were much more severe and chronic.<sup>47</sup>

*The Houston Parent Child Development Center.* Launched in 1970, the Houston Parent-Child Development Center was designed to promote social and intellectual competence in children from low-income Mexican-American families. Families received two years of services, beginning when children were one year of age. In the first year of enrollment, families received biweekly 90-minute in-home visits that focused on parent-child interaction. Fathers and siblings participated in periodic weekend sessions on issues such as decision making and family communication. In the program's second year, the mother and child came to the project center four mornings per week. While the child participated in a nursery school, the mother attended classes on child management, child development, and family communication. Five to eight years after the end of program services, teachers rated control group children as more obstinate, impulsive, disruptive, and involved in fights than program group children (study n= 132). Program group children were rated as more considerate and less hostile.<sup>48</sup> Caution is suggested by the failure to find similar long-term effects on behavior in two studies of two other PCDCs using somewhat different approaches with somewhat different populations.<sup>49</sup> In addition, the Houston PCDC's effects on behavior problems appear to be limited to earlier cohorts, perhaps because program implementation suffered difficulties in later years. These results indicate that outcomes can be expected to vary with the design and delivery of a program, suggesting that effective policies and practice should stick closely to those models found to be most effective.

*Findings Pooled Across Many Studies: The Consortium for Longitudinal Studies.*<sup>50</sup> The Consortium for Longitudinal Studies combined data from 11 studies (including the Perry Preschool Project) begun in the 1960s and 1970s to assess the long-term effects of early childhood education programs. More than 3,500 low-income, predominantly African-American children were initially enrolled in early childhood programs, and more than 1,100 were followed to young adulthood. Findings confirmed the well-established benefits of preschool attendance for cognitive development and school competence, but they also suggested that early education can affect children's future goals and aspirations. At 10 to 19 years of age, children in both program and control groups had high educational and occupational aspirations and equivalent evaluations of their own school performance, but children who had attended preschool were far more likely to express pride in a school- or work-related achievement. Four years later, at ages 14 to 23 years, those participants with higher "achievement orientation" were found to have better employment status and higher educational attainment. Preschool attendance was also significantly associated with higher occupational aspirations and expectations for post-high school participants.

## Evidence from Large-Scale, Publicly Funded Programs

These positive findings do not just apply to demonstration programs or to programs begun in the 1960s and 1970s. Similar results have emerged from federally funded programs begun in the 1980s and 1990s.

*Chicago Child-Parent Centers.* Since 1985, the Chicago Child-Parent Centers (CPC) have provided children from low-income families with preschool and kindergarten programs, continued intervention in early elementary school, and family support services. The Chicago Longitudinal Study has followed the development of more than 1,500 children who participated in CPC and has documented positive short- and long-term social and academic outcomes.<sup>51</sup>

Children who participated in CPC demonstrated greater cognitive achievement, better social adjustment, less frequent grade retention, and lower crime rates as adolescents than the control group. In addition, a cost-benefit analysis revealed a substantial return on the original investment in the form of reduced crime rates, costs to crime victims, and school remedial services, as well as participants' increased earnings capacity by age 21.<sup>52</sup> Much of these benefits are attributable to crime prevention (social outcomes). These results demonstrate the long-term benefits of providing early childhood programs that nurture and care for the emotional and academic needs of children and families.

*Early Head Start.* Evidence from another large-scale, federally-funded program, Early Head Start, also supports the benefits of high-quality early childhood services. Early Head Start is a federally-funded program that provides comprehensive educational, health, and social services to low-income families across the country. Through either center-based child development services, home visits, or a combination of the two, children ages birth to 3 receive early childhood education and parents learn how to meet their children's emotional needs and provide nurturing learning environments. Results of a rigorous randomized trial evaluation of the program<sup>53</sup> documented that children in EHS enjoyed more positive interactions with their parents and their parents showed more emotional support and less negativity toward them than did their control group counterparts. By age 3, Early Head Start children were more likely to behave in ways that maintained interaction with their parent, were more attentive to objects during play, and were reported by parents to be less aggressive. Further analyses revealed that these effects were primarily found in EHS program sites that employed a combination of center- and home-based services, suggesting that it is very important for early childhood education services to partner with parents.

## International Evidence

**Mauritius:** Evidence of the power of preschool education programs to promote social and emotional development comes from other nations as well. A sample of children, randomly selected from the local population on the island of Mauritius (located off the southeastern coast of Africa), participated in a 2-year preschool program (from ages 3 to 5). The program included three components: (1) educational activities focusing on verbal and conceptual skills, visuospatial coordination, memory, and sensation and perception; (2) nutrition (milk, juice, hot meal with fish, chicken or mutton, and salad provided each day); and (3) 2 1/2 hours of physical exercise each day. Adult-child ratios were 1:5.5.

When compared with a control group of children who had experienced usual community care (adult-child ratio of 1:30; no lunch or structured exercise periods, and a traditional curriculum), benefits were seen which were maintained into adulthood. The preschool group had better scores on measures of mental health and antisocial behavior at age 17 and lower rates of criminal behavior at age 23, compared



to the control group. These benefits were especially pronounced for children with signs of malnutrition at age 3. The authors argue that the combination of services is important, perhaps because they result in lasting changes in brain development.<sup>54</sup> This suggests a need for a high-quality preschool environment that pays attention to the needs of the whole child—social, emotional, and physical health and development.

**Jamaica:** Relatively few studies have investigated the long-term effects of preschool programs on such internalizing behaviors as anxiety and depression as opposed to aggression and other externalizing behaviors. The EPPE study discussed later in this brief is one of the few to look at such effects on a large scale for preschool education programs generally. Follow-up of a randomized trial originally conducted with 9-24 month old growth-stunted children in Jamaica provides evidence on the effects of educational stimulation on these and other outcomes when the children are 17-18 years old.<sup>55</sup>

Children (n=127) were randomly assigned to four groups: no-treatment, dietary supplementation, home visits, or both. Dietary supplementation (one kg of milk-based formula) and home visits were provided weekly for two years. The home visits were one-hour sessions working with mother and child to enhance mother-child interaction in play. Mothers were encouraged to talk with their children and to use praise and positive reinforcement rather than physical discipline, and were taught play techniques designed to foster positive child development. Mothers also were provided with toys and picture books and encouraged to play with their children between visits.

Follow-up at age 17-18 (n=103) showed significant effects of the educational intervention but not of dietary supplementation. Participants in the home visits reported less anxiety and depression and better self-esteem. Parents reported that they had fewer attention problems. In addition, there was some evidence that they were less likely to have been expelled from school (2% v. 11%,  $p = .08$ ). No significant effects were found for self-reported anti-social behavior or parental report of hyperactivity and oppositional behavior.

### **Complex Findings Including Negative Effects in Some Circumstances**

Several studies find evidence that children who spend long hours in child care exhibit somewhat higher levels of aggressive behavior in the first few years of school. This effect is small, and its practical importance is unclear. The problem may be largely avoidable by providing better education in child care, though this aspect of curricular improvement does not appear to be captured by commonly used measures of child care quality. Moreover, the broadest research indicates that even when this mild negative effect is present it is accompanied by positive effects on other aspects of social and emotional development as well as positive effects on cognitive development. There is some evidence that typical child care over the first 5 years of life can have modest negative effects on social and emotional development that persists into elementary school, in the form of behavior problems, less social competence and poorer schoolwork habits.<sup>56</sup>

*The NICHD Study of Early Child Care.*<sup>57</sup> The NICHD Study of Early Child Care followed the development of over 1,200 children from 10 sites across the country. Families were recruited for participation through hospital visits shortly after the birth of a child in 1991, and the children's social behavior was subsequently assessed at 15, 24, 36, and 54 months, as well as early in their kindergarten year. Mothers, teachers, and child care providers rated children's behavior, and researchers observed the children's interactions with peers. Results suggested that a small percentage (less than 20 percent) of the children who spent a lot of time (at least 30 hours per week) in non-maternal child care arrangements were more noncompliant and

aggressive than their peers at 54 months of age and in kindergarten. This relationship held even when the effects of quality, type, and stability of child care and maternal sensitivity were controlled for through statistical modeling. Nevertheless, additional analyses revealed that the persistent effect of duration on aggression was fairly small—smaller than the effects of children’s socioeconomic status and the maternal sensitivity of their mothers.

Some researchers have suggested that the NICHD link between aggressive behavior and long hours in child care may be easily explained and may not be problematic.<sup>58</sup> The proportion of children in the high duration of care group who show higher levels of problem behaviors does not exceed the proportion of children in the national population as a whole who display the same frequency of these behaviors, so child care is not increasing the number of aggressive children that otherwise exists in the population at-large. Instead, it is possible that the increased aggression emerges when children first spend substantial time in large-group settings. For the children in long-term care, their exposure begins earlier, so the higher aggression levels emerge earlier. When their agemates are exposed to substantial time in large-group settings, their levels of aggressive behavior will increase too, so that, in the end, preschool participants will not display more aggression than agemates.

*The Abecedarian Project.*<sup>59</sup> The Abecedarian project offers some additional evidence from a randomized trial with a sample of 104 at age 21 follow-up. The Abecedarian Preschool Project provided low-income African-American children with full-day educational child care from birth to age 5, and has demonstrated important long-term benefits for children such as higher rates of high school graduation and college attendance. However, in an early study, teachers rated 59 children from the project to be more aggressive during the first three years of primary school than control group children. Although the teachers did not dislike or find the Abecedarian children harder to manage than children from the control group, the Abecedarian children were more likely to kick, push, and hit in a variety of settings (such as lunchroom and classroom) than children from the control group. By the third year in public school, the aggression level of students who had participated in the Abecedarian program began to decline, and the level for children in the control group began to rise slightly.

There were no differences in aggressive behavior among children in the Abecedarian control group, although their exposure to child care ranged from none at all to nearly five years. Of course, the sample size is quite small making it difficult to detect small effects. The study’s author suggests that the program’s curriculum was an important factor in explaining the difference between treatment and control group aggression. In the early years of Abecedarian, the program emphasized academic growth in its curriculum activities. When early results showing elevated aggressive behavior were observed, the program’s designers changed the curriculum to reinforce prosocial alternatives, and they brought in a consultant to work with teachers on methods of behavior control. Subsequent cohorts of children enrolled in the program showed much lower rates of aggressive behavior. It is noteworthy that large positive effects on school success were found across all cohorts.

*The Effective Provision of Preschool Education Project.*<sup>60</sup> The Effective Provision of Preschool Education (EPPE) Project involved nearly 3,000 children and 141 centers from five regions in England. Children were recruited from six types of service settings, such as nursery school, playgroup, or day care. Social and behavioral development over the preschool period was analyzed by measuring change in social behavior from entry to the study (primarily 3-year-olds) to start of primary school (primarily 5-year-olds).

Classroom teachers rated the children who attended preschool centers significantly higher on measures of independence and concentration, cooperation and conformity, and peer sociability compared to children who remained home. At entry to primary grades, effect sizes (measured in standard deviations) for 1-2 years of preschool attendance ranged from .11 for cooperation and conformity to .36 for peer sociability, after controlling for child, parent, and home characteristics.

In general, children in higher quality programs benefited more. In particular, developmental gains in cooperation and conformity were stronger if children were enrolled in programs with highly qualified staff, or in programs that scored well on “language and reasoning” and “social interaction” subscales of the Early Childhood Environment Rating Scale (a measure commonly used to assess the quality of early childhood programs). Children in centers with highly qualified staff also showed reduced anti-social/worried behavior.

In general, the researchers found that the more time children spent in preschool, the more social benefits they enjoyed, although it appeared that children who were enrolled in preschool for an extended time (more than 3 years) showed some increased anti-social/worried behavior. The quality of the program made a difference, such that the problematic behavior levels were lower in high-quality programs, although those levels were still higher than for children who spent less time in care. This evidence is consistent with the findings of the NICHD and Abecedarian studies, but places this one negative result in the context of other more positive effects on social and emotional development because of the broader set of outcome measures used.

## **The Role of Preschool Quality and Curriculum**

Successful preschool programs may differ in some ways, but they all are high quality programs, with well-trained staff who focus attention on the needs of each of their students. In policy terms, this means that the programs share the following characteristics:<sup>61</sup>

- Small group sizes
- A partnership with parents
- A sound curriculum that addresses the needs of the whole child
- High adult-child ratios
- Competitive staff compensation and benefits to attract and retain good staff
- Well-prepared teachers and ongoing professional development

The following sidebar (p. 13) discusses some of these aspects of preschool program quality in greater detail. In addition to these important program elements, however, the methods of teaching and organizing student activities are highly influential in the development of social competency. Many child development experts feel that early childhood programs that employ only didactic methods of instruction may fail to enhance social and emotional skills.<sup>62</sup> This type of instruction does not always provide children with opportunities to develop problem-solving abilities and may negatively affect their development of social and emotional skills, which can have long-term consequences for learning.

## The Benefits of a Balanced Curriculum

In an attempt to highlight the value of a balanced curriculum, the High/Scope Preschool Curriculum Comparison Study<sup>63</sup> compared the effectiveness of three preschool curriculum models when used with children at risk for school failure. Children were randomly assigned to participate in programs employing (1) the High/Scope curriculum model which balances child- and teacher-directed instructional activities, (2) a direct instruction model in which it is primarily teachers who initiate activities, or (3) a traditional nursery school program in which classroom activities are the teacher's responses to the child's expressed needs and interests, and teachers encourage children to engage in free play.

The High/Scope curriculum provides children with opportunities to make choices about their activities by identifying goals and making plans to achieve them. Students are also encouraged to recall or reflect upon different experiences they have had during the day, taking time to consider ideas and concepts they have discovered and discuss what they might do to build on or extend what they have learned. The plan-do-review sequence helps children develop language and social behavioral skills and contributes to the development of higher-order thinking skills such as making predictions, solving problems, and anticipating outcomes.<sup>64</sup> This model provides autonomy and assists in the development of analytical abilities, abstract thinking, problem solving skills, self regulation, and metacognitive skills, all of which are essential for success in school.

Adults who had attended the High/Scope program as children experienced fewer social difficulties and were more likely to participate in volunteer work, vote, and stay married longer than their peers who had participated in the other programs. Other studies also suggest that a balanced curriculum can have a significant long-term impact on sociobehavioral outcomes,<sup>65</sup> including more prosocial behavior and better relationships with peers in early elementary school.<sup>66</sup> These suggest that more attention to how children are taught and the kinds of relationships children and adults have in preschool programs may be the key to avoiding even small negative effects on aggression and maximizing positive effects on social and emotional development and behavior.

The High/Scope curriculum study is just one small experiment, but the field is decidedly lacking in randomized trials investigating the effects of curriculum on social and emotional development on long-term social and emotional development. Indeed, the experimental literature has tended to focus on highly specific interventions for children identified as having serious problems rather than on a whole child approach for the general population.<sup>67</sup> The preschool education programs found to be the most effective in preventing antisocial behavior and delinquency are quality programs with balanced curricula that focus on the needs of the children,<sup>68</sup> provide opportunities for peer interactions during play and produce high levels of teacher-child closeness.<sup>69</sup>

Understanding the impact of quality preschool education is the first step, but providing programs that foster healthy emotional development requires foresight, planning and the support of politicians, communities and families.

### Quality Preschool Programs: Definitions and Evidence for Benefits

Preschool programs that maintain high standards of quality provide children, especially those at risk, with skills that will assist them in their social and academic adjustment to elementary school. High-quality preschool is organized in ways that allow children to form close, sustained relationships with teachers and encourage positive interactions with peers. Small group sizes and high adult-child ratios, competitive staff compensation and benefits, professional development, and other aspects of the program are geared toward fostering strong relationships and reducing teacher turnover. These components have been associated with positive social and emotional outcomes for children, including greater compliance, sociability, attention, self-regulation, and peer relations as well as lower rates of negative affect and behavior problems.<sup>70</sup>

A program's quality may also be determined by the qualifications required of the teachers and staff. Teachers with four-year degrees and specialization in early childhood are better prepared to develop meaningful relationships with their students and create safe, nurturing climates that support children's emotional well being. Children cared for by teachers who are highly involved and invested during their preschool years have been found to be less likely to display behavior problems in kindergarten and demonstrate increased social skills through elementary school.<sup>71</sup> High teacher-student ratios allow for the development of these relationships, which provide stability in transitions to new classrooms, contribute to increased social skills, and improve emotional stability.<sup>72</sup>

The National Institute of Child Health and Human Development (NICHD) has conducted extensive research that has contributed to a better understanding of the relationship between preschool quality and child outcomes. The research has shown that higher quality preschool programs defined by high teacher-student ratios, group sizes and higher teacher qualifications results in more responsive teaching and fewer behavior problems from children.<sup>73</sup> Children who attend higher quality preschool have also been reported to have fewer behavior problems, closer relationships with their mothers, and to be better prepared for school.<sup>74</sup>



## Conclusions and Recommendations

In sum, high-quality preschool education is designed to enhance children's social and emotional development. Such programs provide children with highly qualified teachers, small class sizes with high teacher-student ratios, opportunities to pursue their interests and interact with their peer, and activities intentionally designed and implemented to educate the whole child. Among the benefits found from such programs; children are more likely to graduate from high school, continue with higher education, and have lower rates of teen pregnancy, special education placement, disruptive behavior, and arrests. They are more likely to give back to their neighborhoods as adults by participating in volunteer work and contribute more to their communities through higher employment rates and earnings, higher voting rates, increased church attendance, and home ownership.<sup>75</sup> These benefits and associated economic returns have only been found for programs that are high-quality. Benefits have been found for larger scale programs including the Chicago Child Parent Centers, Head Start and Early Head Start. By contrast, length of attendance in typical child care has been associated with modest negative outcomes.

As policymakers design programs and make decisions regarding early education, they should invest in programs that support development of the whole child, including academic, social, and emotional skills. Recommendations for policymakers are as follows:

**1. Include enhanced social and emotional development as a key goal of preschool education programs.**

This does not mean that enhanced cognitive development should be de-emphasized. Both aspects of children's development are important, and one need not be sacrificed to support the other.

**2. Standards should spell out the outcomes that preschool education programs are expected to achieve for social and emotional development.**

Performance standards for preschool education programs should include explicit mention of social and emotional development. The new draft of National Association for the Education of Young Children accreditation standards include discussion of promotion of social and emotional skills and can provide guidance for program administrators who are considering launching new preschool programs.<sup>76</sup>

Then, when policymakers require that progress be measured by indicators, those indicators should map onto the performance standards and should therefore also include measures of social and emotional development. Seventeen states have launched school readiness indicator projects, and their work can provide examples of such indicators.<sup>77</sup>

**3. Expand access to high-quality preschool education programs so that more children can benefit from educational experiences that will improve their socio-emotional development.**

Nationally, only a few states have committed to funding preschool for all 4-year-olds whose parents wish them to attend.<sup>78</sup> High-quality infant and toddler programs, even for the most disadvantaged children remain rare. Substantial new investments should be made to increase access to high-quality child care and preschool education programs designed specifically to enhance early learning and development, broadly defined.

4. **Ensure that all preschool programs are high-quality because only educational programs will support children’s social and emotional development.** Such programs have strong leadership, well-prepared teachers, a balanced curriculum, reasonable class sizes and ratios, and partnerships with parents.
5. **Provide administrators and teachers with technical assistance and training to help them implement effective curricula and teaching practices that support children’s social and emotional development.** Studies demonstrate that, beyond the traditional aspects of program quality, the content of the curriculum and the teaching practices that teachers employ are critical determinants of a program’s ability to benefit children’s social and emotional development. Policymakers should ensure that resources are available to help teachers put into practice the best approaches for promoting children’s social and emotional development.

## The Last Word

A child’s ability to learn and to function as a contributing member of society rests heavily on the development of social competency and emotional health that begins at birth and is greatly influenced during the preschool years. Preschool programs that pursue the highest standards of quality will contribute substantially to this development. And while it may be a difficult and costly responsibility to promote and maintain such standards, the benefits far outweigh the costs. If we value our children and their future, we would be wise to make every effort to provide access to quality preschool programs and endorse such a prescient investment in the social and economic future of our country.

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