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Preschool Programs that Help Families Promote

Child Social-emotional School Readiness: Promising New Strategies

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Running Head: HELPING PARENTS

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Abstract

Parents play a central role in supporting the early learning that positions young children for success when they enter formal schooling. For this reason, efforts to engage families in meaningful collaboration is a long-standing goal of high-quality early childhood education (ECE). Family-school engagement can take multiple forms; in this review we focus on universal preschool-based outreach strategies that help parents support growth in child social-emotional and self-regulation competencies and prepare them for the transition into formal schooling. Recent research has expanded understanding of the neurodevelopmental processes that underlie child school readiness, and the impact of parenting (and the social ecology affecting parenting) on those processes. These new insights have fueled innovation in preschool-based efforts to partner with and support parents, expanding and shifting the focus of that programming. In addition, new approaches to intervention design and delivery are emerging to address the pervasive challenges of reaching and engaging families, especially those representing diverse racial, ethnic, cultural, and socio-economic backgrounds. This paper reviews developmental research that underscores the importance of prioritizing child social-emotional learning (with attention to self-regulation and approaches to learning) in universal preschool-based parenting programs targeting young children. We highlight the intervention strategies used in programs with strong evidence of impact on child readiness and school adjustment based on randomized-controlled trials (RCTs). New directions in intervention design and delivery strategies are highlighted, with the hope of extending intervention reach and improving family engagement and benefit.

Keywords: parent interventions, school readiness, social-emotional competence, self-regulation, approaches to learning, preschool, kindergarten transition

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Child Social-emotional School Readiness: Promising New Strategies

Starting kindergarten represents a watershed in early childhood development. Children face new maturity demands when they enter school, as teachers expect them to follow school rules, get along with their peers, sit, listen, and learn (Skinner, 2018). Under ideal circumstances, rapid neurodevelopment of the prefrontal cortex during the preschool years and corresponding growth in social-emotional and self-regulatory competencies prepare children for these demands (Blair & Raver, 2015). These skills help children navigate the behavioral and cognitive expectations of school, promoting positive learning trajectories and social-emotional well-being (Skinner, 2018). Conversely, when children struggle to meet expectations in kindergarten, difficulties with behavioral or academic adjustment can have long-term consequences, derailing progress toward future academic success and well-being (Jones et al., 2015).

Parents play a critical role in supporting the neurodevelopmental processes and skill acquisition that children need to respond successfully to the challenges of formal schooling. Accordingly, high-quality early childhood education (ECE) programs have a long-standing interest in supporting parent-focused programming (Halgunseth et al., 2009; Reynolds et al., 2022). Recent research has amplified that interest by documenting how parenting shapes the neurodevelopment of self-regulation skills and by highlighting the vulnerability of children exposed to early adversity and toxic stress (Fay-Stammach et al., 2014). Cultivating positive family-school relationships is now featured centrally in conceptualizations of school readiness with the goal of promoting cross-context collaboration and alignment of home and school-based learning supports (Mashburn & Pianta, 2006; Sheridan & Garbacz, 2021).

Preschool family engagement programs have multiple goals and take multiple forms, such as supporting parent participation in the child's school experiences, helping parents advocate for their child's educational needs, and providing family services (Barnett et al., 2020; Halgunseth et al., 2009). This review focuses specifically on preschool-based efforts to help families support child learning at home, including a focus on parenting strategies and home learning activities that promote social-emotional and self-regulatory skill development. We highlight programs with empirical evidence of impact on child

outcomes in areas of social-behavioral school adjustment (e.g., social skills, impulse control), emotion regulation (e.g., emotional understanding, emotion management) and approaches to learning (e.g., motivated, goal-oriented, and flexible learning strategies). In the following sections, we explain the rationale for prioritizing these skill domains in parenting programs targeting preschool and kindergarten children. We highlight developmental research linking parenting practices with child skill development in these domains, and illustrate examples of school-based, parent-focused programs that have been validated with rigorous RCTs. In addition, we identify emerging intervention strategies that offer hope for extending the reach and improving the engagement of parents in these programs, with an emphasis on reaching diverse and vulnerable families.

This review is limited to universal programming offered by schools and designed to support families of children who are 3 – 6 years of age and does not include selective or indicated interventions. Readers are referred to review papers for broader coverage of other forms of family engagement programming (Halgunseth et al., 2009; Prime et al., 2021; Reynolds et al., 2022; Sheridan et al., 2019), parent outreach programs designed for subgroups of children struggling with significant behavioral or developmental challenges (Gleason et al., 2016; Leijten et al., 2019; Menting et al., 2013; McLuckie et al., 2019), and parent-focused programs for children in a broader age range (0 – 8 years) and with varied goals (National Academies of Sciences, Engineering, & Medicine, 2016).

The Development of Social-emotional Competencies in Early Childhood

Normatively, child social-emotional learning is rapid and expansive during the preschool and kindergarten years (ages 3 – 6 years), creating a foundation for future school success (Skinner, 2018). Fundamental advances occur in children's social skills (their ability to collaborate with others, form friendships, and manage conflicts), emotional understanding (their ability to recognize and label a range of emotions), and self-regulation (their capacity to control behavioral impulses, modulate emotional arousal in adaptive ways; Morawska et al., 2019). Parallel growth occurs in the skills that contribute to approaches to learning in the classroom, including the executive function (EF) skills that support attention control, working memory, and flexible, goal-oriented problem-solving (Blair & Raver, 2015). Growth in

social-emotional competencies and approaches to learning represent interdependent developmental processes buttressed by children's growing language skills (Hunter et al., 2018). Together these skills support the ability to consider one's own and others' emotions, intentions, and social expectations, expanding social understanding and self-awareness. They help children focus attention, work independently, and solve problems flexibly (McClelland, et al., 2006).

Concurrent and predictive associations underscore the importance of preschool social-emotional learning for overall mental health and long-term well-being. Social-emotional skills are associated with positive peer and teacher relationships, productive participation in classroom activities, and reduced disruptive behavior problems in early childhood (Morawska et al., 2019; Skinner, 2018). Prospectively, Jones and colleagues (2015) found that kindergarten teacher ratings of child social-emotional competencies significantly and uniquely predicted child outcomes two decades later at age 25, including educational success (e.g., high school graduation and less grade retention), productive employment, and reduced involvement in criminal activities. Approaches to learning and associated EF skills support school success by promoting academic performance concurrently and predictively (Best et al., 2011; Hunter et al., 2018). Representing two important developmental precursors of school success, social-emotional competencies and approaches to learning show differential associations with parenting practices and intervention approaches as noted in the following sections.

Parenting Contexts Affecting Social-emotional Learning and Approaches to Learning

Parents play a central and unique role in supporting social-emotional learning during early childhood (Valcan et al., 2018). Parent influence on school readiness is amplified during the preschool years as socialization shapes the neurodevelopment of the prefrontal cortex, and caregivers provide primary sources of stimulation, nurturance, and co-regulation (Fay-Stammbach et al., 2014). Prior research suggests that two broad domains of parenting practices make fundamental contributions: 1) socioemotional support, reflected in warm, sensitive responding, and an avoidance of critical and punitive control, and 2) instructional support, reflected in cognitive stimulation, concept scaffolding, and autonomy support (Pino-Pasternak et al., 2010; Valcan et al., 2018).

Socioemotional Support

Developmental research consistently links positive parenting practices (including warm affection, and contingent, appropriate responding to child needs) to growth in social-emotional competencies (Lengua et al., 2007). Some studies suggest that sensitive-responsive parenting also facilitates the development of approaches to learning, including EF skills (Valcan et al., 2018), perhaps because supportive and predictable parenting models positive social-behavioral skills and fosters feelings of security that facilitate the adaptive regulation of child stress-response systems (Valcan et al., 2018). Critical and harsh parental control impedes positive social-emotional development and is consistently associated with poor behavioral self-regulation (Karreman et al., 2006; Lengua et al., 2007). Chronically harsh and over-controlling parenting activates stress reactivity and impulsive, self-protective responding in ways that may also impede EF development (Blair & Raver, 2015; Fay-Stammbach et al., 2014; Valcan et al., 2018).

Instructional Support

Instructional support reflects the degree to which parents expose children to multiple learning opportunities, foster language development with enriched conversations, support autonomous learning and problem-solving efforts, and provide sensitive-responsive scaffolding to enhance learning motivation and skill acquisition (Matte-Gagné & Bernier, 2011). Parent instructional support is consistently associated with preschool measures of EF and approaches to learning (Fay-Stammbach et al., 2014; Karreman et al., 2006; Valcan et al., 2018). Researchers theorize that parent instructional support helps children learn to focus, sustain, and shift attention to relevant pieces of information and fosters goal-oriented problem-solving efforts (Matte-Gagné & Bernier, 2011).

Exposure to Adversity

Contexts that expose parents and children to high levels of chronic stress can erode positive parenting efforts and increase risk for exposure to adverse events that undermine healthy development (Blair & Raver, 2015). For example, parents who are socio-economically disadvantaged and/or experience social marginalization and systemic racism may be hampered in their parenting efforts by their

reduced access to opportunities, resources, and supports (Bodovski & Youn, 2011). Children growing up in such circumstances often show delays in the development of foundational social-emotional and self-regulation skills (Blair & Raver, 2015). Exposure to adversity undermines early neurodevelopment by overloading stress response systems, thus impeding the development of the EF skills that support approaches to learning and subsequently offsetting positive learning trajectories at school entry (Bodovski & Youn, 2011). These delays make the transition into school difficult and in the longer run they impair mental health and contribute to underachievement and underemployment (McClelland et al., 2006).

Supporting parents with strength-based interventions has the potential to reduce the school readiness gap associated with socioeconomic disadvantage and provide children with skills that promote resilience and success at school entry. As such, parenting programs targeting child social-emotional and self-regulation skills represent an important target for reducing social disparities and promoting child school success and long-term well-being.

Parent Engagement Programs Targeting Preschool Social-emotional and Self-regulation Skills

Preschool programming designed to help parents support child development and learning has a long history of use in ECE (Reynolds et al, 2022). Interest in and empirical study of these programs has accelerated notably during the past 15 years (Prime et al., 2021). Despite the widespread use of parent-focused programming, a recent meta-analysis suggested that most ECE parent outreach efforts do not make incremental contributions to the school readiness of children age 3 – 5 years old (Grindal et al., 2016). The exceptions were programs that provided parents with intensive coaching in positive parenting strategies and that engaged parents in home learning activities with their children (Barnett et al., 2020; Grindal et al., 2016). Joo and colleagues (2020) noted that the strongest gains in child cognitive and social-emotional school readiness occurred when ECE centers used “fully developed” parenting programs defined as “programs designed to teach parents how to better support their children’s early learning by providing stimulating interactions during daily routines and playtime at home” (page 8). In the following sections, we illustrate some of the fully developed parenting programs that have proven most effective at boosting child social-emotional school readiness in rigorous RCT evaluations when implemented as

universal preschool-based programs. These programs share a focus on parenting strategies and home-based learning applications but vary in terms of their primary targets: 1) positive behavior management strategies, 2) sensitive-reponsive parenting and parent-child relationship enhancement, and/or 3) parent-child communication and guided learning activities.

Primary Focus: Positive Behavior Management

Efforts to promote positive behavioral management strategies and reduce harsh discipline date back to the 1960s. Based on social learning theory, this intervention approach was developed and validated as an effective treatment for children with challenging behaviors (e.g., noncompliance, rule-breaking behaviors, aggression; see reviews by Gleason et al., 2016; Leijten et al., 2019; McLuckie et al., 2019; Menting et al., 2013). Noting that challenging child behaviors often emerge in preschool settings, especially in economically stressed and under-resourced communities, positive behavior management programs were designed as universal prevention strategies for preschool parents. For example, in parallel studies, Webster-Stratton and colleagues (2001) and Kaminski and colleagues (2002) tested the impact of the Incredible Years (IY) Parent Training programs delivered to parents of children attending Head Start. IY targets positive behavioral supports (e.g., clear expectations, use of praise and selective attention to reinforce positive behavior, and effective, non-coercive limit setting) to enhance positive parent-child relationships and to decrease parent use of harsh discipline (Webster-Stratton & Taylor, 2001). Used in combination with a classroom program in both studies, the intervention promoted improvements in the targeted parenting practices and increased parent involvement with the school (Kaminski et al., 2002; Webster-Stratton et al., 2001). Children showed increased social competence at school, but these improvements appeared linked with classroom programming rather than parent training (Kaminski et al., 2002). Behavioral improvements at home were observed, primarily for children with high rates of baseline externalizing problems (Webster-Stratton et al., 2001). This program has also been applied to children with a range of developmental delays in early childhood who often present to preschool settings with externalizing behavior problems (McIntyre, 2008a), producing reductions in negative parenting and declines in child problem behavior and internalizing symptoms (McIntyre, 2008b). In these studies and in

subsequent meta-analyses, parent behavioral management training has shown strong benefits for families challenged by child externalizing problems (Leitjten et al., 2019), validating the approach as a tier 2 (selective) prevention approach, but smaller benefits emerge for other families served in universal prevention programs.

Informed by the growing evidence documenting the negative impact of chronic stress exposure on child emotional development and regulation (Blair & Raver, 2015), more recently-developed preschool parenting programs have increasingly incorporated a bio-behavioral framework (Prime et al., 2021), supplementing a focus on positive behavioral management strategies with efforts to enhance parent emotional awareness and support for child emotional expression and management (see Havighurst et al., 2020 for a general review). Parent group programs targeting school readiness continued to promote positive behavioral management strategies but added new emotion-focused components. For example, the Chicago Parent Program encouraged parents to establish family routines, taught parents stress management strategies, and included parent-child problem-solving discussions along with behavior management training (Gross et al., 2009). ParentCorps (Brotman et al., 2011) added topics of managing emotions, problem-solving, and highlighting family strengths and cultural traditions to parent group discussions along with positive behavioral management strategies. In a RCT that combined parenting groups with teacher professional development and child social-emotional skill training groups, ParentCorps improved parenting practices and child behavior prior to kindergarten entry (Brotman et al., 2011) with sustained effects on child mental health and academic performance evident three years later (Brotman et al., 2016). As noted below, parent management training has also been combined with intervention components targeting child language/literacy and cognitive self-regulation skills.

Primary Focus: Sensitive-responsive Parenting and Relationship-building Practices

A second source of influence on the design of preschool-based parenting programs emerged from home visiting programs focused on serving infants and toddlers and informed by attachment theory (Prime et al., 2021). These programs have a primary focus on increasing sensitive-responsive parenting, improving the serve-and-return contingencies in parent-child interactions, and enriching parent-child

relationships. Parent warmth and responsiveness and parent capacity to sensitively scaffold child learning experiences have been linked with the development of positive social-emotional skills and approaches to learning (EF), suggesting that targeting these parenting skills during preschool could boost child gains in both areas of school readiness (Landry et al., 2002). A good example of this approach is the Play and Learning Strategies (PALS) program that was developed originally for parents of infants and toddlers and then adapted for parents of preschool children (Landry et al., 2017). PALS is delivered by home visitors who follow a detailed manual and use videotapes and coaching to help parents increase their warmth, sensitivity, and contingent responsiveness, as well as learn how to scaffold and support child attentional control and language development. In a preschool RCT, PALS was delivered over the course of the school year in 19 home visits. Relative to parents in the control group, parents who received PALS showed greater improvements in sensitive-responsive parenting during play and book reading; children showed greater gains in social, self-regulation, and language skills when observed during parent-child interactions (Landry et al., 2017).

The Circle of Security parenting intervention is another intervention informed by attachment theory and evaluated as a universal program for parents of preschool children attending Head Start (Cassidy et al., 2017). The intervention focuses on enhancing parental sensitive responding, empathy, and emotion regulation. In the Head Start RCT, trained community service providers delivered a manualized, video-based version of the program to parent groups over a ten-week period. Parent sensitive responding was partially improved as parents in the intervention group showed fewer unsupportive (but not more supportive) responses to child distress than parents in the control group. Children in the intervention group showed greater improvement in EF (inhibitory control) although parent ratings of behavior problems showed no significant intervention effect. Evidence of moderation emerged, leading the authors to speculate that the intervention may have greater effectiveness in some families than others and that a longer and more intensive intervention might be needed to produce stronger outcomes.

Primary Focus: Parent-child Communication and Guided Learning Activities

The value of teaching parents how to sensitively support and scaffold child play and learning,

rooted in Vygotsky's socio-cultural theory of development, contributed to the design of parent interventions focused on guided home learning activities. For example, the Let's Play in Tandem intervention (Ford et al., 2009) provides parents and preschool children with learning games designed to strengthen child academic school readiness skills (e.g., phonological awareness, numeracy concepts). Parents are guided to scaffold the child's learning as they play together, supporting joint attention and providing prompts, demonstrations, and encouragement. In a RCT, direct assessments revealed significant intervention effects on child inhibitory control, academic knowledge, and vocabulary; teacher ratings collected after school entry documented significant benefits in academic school readiness (literacy and math skills) and social-emotional school readiness (personal/social skills and listening skills).

Home learning activities also featured centrally in the Head Start Research-based, Developmentally-Informed Parent (REDI-P) school readiness intervention (Bierman, Nix et al., 2022). During the spring of the pre-kindergarten year and as children transitioned into kindergarten, families received activity kits that contained storybooks and conversation games that highlighted social-emotional learning (e.g., friendship skills, emotional understanding, self-control, and social problem-solving) and included opportunities for literacy skill practice. Home visitors coached parents in presentation strategies designed to increase socioemotional support (e.g., positive behavior supports, emotion coaching, and problem-solving dialogue) and instructional support (e.g., asking questions, active listening, scaffolding conversations, and pretend play). In a RCT, REDI-P produced improvements in parent-child communication and child school readiness skills (social competence and approaches to learning) with evidence of sustained benefits for children through fifth grade (Bierman et al., 2021). Growth in child skills was mediated by the frequency of parent use of the home learning materials and parent openness to the targeted parenting strategies (Nix et al., 2018).

Another example of a focus on parent-child communication and guided learning activities is the Companion Curriculum (Mendez, 2012), which was designed to strengthen parent engagement in Head Start centers serving a high proportion of ethnic minority families. Teachers were trained in how to encourage and welcome family involvement, and classrooms had Family Corners designed to showcase

and celebrate family cultural traditions. In addition, families were invited to monthly school-based workshops where teachers demonstrated how to scaffold self-regulated learning and sent learning activities home for parents to use with their children. The intervention promoted increases in parent-child reading, and children in the intervention condition scored higher than the comparison group on end-of-year vocabulary tests and parent-rated social competence (Mendez, 2012).

Several other interventions have targeted parenting strategies and home activities designed specifically to support growth in child EF skills and approaches to learning. For example, the Curious Minds program included four 2-hour parent workshops and provided home activities to help parents scaffold and support child cognitive and emotional regulation (Spruijt et al., 2020). The intervention produced significant gains in parent support and reduced intrusiveness, but did not improve child attentional control or EF (Spruijt et al., 2020). Tachibana and colleagues (2012) also designed a play-based program for parents and preschool children, providing them with games that featured parent-child joint problem solving, perspective taking, positive adult collaboration and encouragement, and scaffolding to keep the task at an optimal challenge level for the child. Gains experienced over a 3-month period by children in the intervention group compared to the control group suggested positive intervention effects on fluid intelligence, working memory, and processing speed, but classroom outcomes were not assessed. A third example is the Parents and Children Making Connections – Highlighting Attention program (PCMC-A, Neville et al., 2013) that combined parent behavior management training and gave parents attention training exercises to use at home with their children. Parents met in weekly 2-hour sessions over 8 weeks and were given home learning assignments and links to child attention training exercises. Children participated in parallel small group attention training activities. In a RCT that included an attention training and a no treatment comparison group, PCMC-A promoted gains in a physiological measure of attention skills, direct assessments of nonverbal intelligence and receptive language skills, and more positive social skills and reduced problem behaviors (by parent report), although effects on teacher ratings were not significant. Finally, the Getting Ready for School (GRS; Noble et al., 2012) program provided parents with a 1-hour, 8-week workshop series on promoting children’s academic and self-

regulation skills, and provided parents with learning materials designed to assist them in bolstering child self-regulation and cognitive development (Marti et al., 2018). GRS enhanced child math skills (Noble et al., 2012); parents who attended more GRS workshops and events also promoted increased gains in child academic and self-regulation skills (Marti et al., 2018).

Positive behavior management training has also been intergrated with interactive reading programs in order to promote child social-emotional and academic school readiness. For example, the Fathers Supporting Success in Preschoolers program (Chacko et al., 2018) used this combined intervention approach with fathers of children attending Head Start and found that the intervention improved parenting practices, reduced child behavior problems, and enhanced child auditory comprehension and expressive communication skills. Similarly, the KeySteps@JC Parent-Child Interaction Program (Leung et al., 2022) combined a focus on positive parenting practices, emotion coaching, and interactive reading during 20 weekly parent group sessions held at schools. Intervention group parents reported increases in interactive reading, emotion coaching, and parent-child play and rated child behavior as significantly improved, but child school functioning was not assessed.

These studies illustrate the significant benefits for parents and children when preschools offer “fully developed” parent-focused interventions – interventions that provide systematic and intensive supports to empower parents in their efforts to promote child competencies in areas of social-emotional and self-regulatory skill domains. Long-term follow-up data suggest these kinds of parent-focused enrichment programs can have incremental benefits that sustain well after the transition into elementary school (Bierman et al., 2021; Brotman et al., 2016). Most of these model programs were designed for and evaluated with economically disadvantaged and under-resourced families, suggesting that the approaches have promise to promote equity and help reduce socioeconomic gaps in school readiness (Magnuson, 2022). Yet, scaling these kinds of programs for broader reach and engaging and effectively serving all families remain key challenges for the future. The follow sections focus on efforts to improve the family-centeredness of preschool-based parent programs, prepare schools to be more welcoming contexts for diverse and marginalized families, and extend the reach of effective family engagement programming.

The Challenges of Expanding Preschool-based Parent Program Reach and Engagement

Engaging families is a pervasive challenge for school- and community-based parent programs (Bower et al., 2020; Magnuson & Schindler, 2016; National Academies of Sciences, Engineering, and Medicine, 2016). On average, parent intervention studies for young children enroll only 10-34% of eligible parents; of the parents who enroll, most attend fewer than 50% of the sessions offered (Breitenstein et al., 2014). Home visiting programs face similar hurdles in enrolling, engaging, and retaining participants (Bower et al., 2020). Yet, parent engagement is a central predictor of intervention response (Brotman et al., 2011; Magnuson & Schindler, 2016; Nix et al., 2018). In the following sections of this paper, we describe emerging parent engagement approaches and delivery systems that seek to make preschool-based parenting supports more widely accessible and attractive to diverse families.

Attending to Variability in Family Needs and Parent Goals

Multiple factors may contribute to challenges in parent engagement and retention in school-based programs, both contextual and personal. For example, when Mendez (2010) asked parents about factors that limited their engagement, practical impediments figured centrally, including work conflicts (mentioned by 50%), night classes (11%), transportation issues (14%), and being too tired (12%). Innovations in program delivery systems may be helpful in addressing these kinds of practical barriers to participation (Breitenstein et al., 2014). Researchers have also speculated that low rates of parent engagement may reflect inadequate efforts to recognize and address systemic factors that discourage families representing diverse socioeconomic, racial, ethnic, cultural, and linguistic backgrounds from participating in school-based programs (see Meek et al., 2020). Efforts to adopt a stronger equity framework and increase the family-centeredness of intervention programs may be critical to address these issues (Dawson-McClure et al., 2022; Mendez & Westerberg, 2012; National Academies of Sciences, Engineering, and Medicine, 2016).

Building family-school partnerships. Becoming more family-centered in school-based parent programming requires the commitment of schools and school staff to bi-directional communication and respectful partnership with families (Sheridan & Garbacz, 2021). This involves a focus on the attitudes

and skill-sets of the ECE workforce as well as the design of effective programming for parents (Dawson et al., 2022; Meek et al., 2020). The Getting Ready program (Sheridan et al., 2010) illustrates the value of ECE interventions that build the capacity of educators and schools to engage with and effectively support parents. Getting Ready coaches early educators on eight strategies they can use to improve their interactions with parents and build strong collaborative partnerships: communicate openly and clearly, encourage parent-child interaction, affirm parents' competencies, make mutual decisions, focus parents' attention, use observations and data, share information and resources, and model and suggest new practices. The intervention goal is to ensure that educators are prepared to welcome all parents as partners and interact in ways that respect parent perceptions and experiences, support parenting self-efficacy and confidence as they guide parents in scaffolding their child's learning. A RCT documented positive effects of Getting Ready on level of parent engagement with preschools, sensitive-responsive parenting, child school readiness skills (social-emotional and language-literacy domains), and improved child behavior at school (Sheridan et al., 2014).

Additional efforts may be needed to address racial biases among teachers and school staff that contribute to disadvantageous treatment of children of color and their families (Dawson-McClure et al., 2022; Meek et al., 2020). Parents with low levels of formal education and few financial resources often express distrust of schools and their fears are validated if they experience dismissing or disrespectful treatment by school personnel (Santiago et al., 2016). Negative parent-teacher interactions at school entry compound the difficulties of engaging families in school-based programs and contribute to disparities in the school support provided to children and families from marginalized ethnic, racial, cultural, and socioeconomic backgrounds (Magnuson, 2022). Illustrating one response to this challenge, ParentCorps has designed professional development activities for teachers to help them forge strong partnerships with families (Dawson-McClure et al., 2022). Training workshops include experiential activities designed to increase teachers' empathy for challenges parents face and self-reflection exercises to build awareness of how teachers and school staff affect child and family experiences. Group training and individual coaching focus on relationship-building strategies that strengthen school-family partnerships (e.g., active listening,

perspective taking, and navigating difficult conversations; Dawson-McClure et al., 2022). Research is needed to further explore effective strategies for promoting the readiness of schools and school staff to welcome and support diverse families.

Tailoring programming to address parent goals. Parent engagement may also be enhanced by programming that provides families with more flexibility and voice (Sheridan & Garbacz, 2021). An example is the design of the Family Check-Up (FCU; Dishion & Stormshak, 2007) which honors parents as the experts on their family and children, and is flexibly tailored to meet the unique goals and needs of each family. FCU begins with a brief assessment process (two to three sessions) that includes an initial interview, ecological assessment, and videotaped parent-child observation. Data gathering is followed by a feedback session with motivational interviewing (MI) that emphasizes family strengths and draws attention to potential areas for change. Parents may then participate in additional follow-up intervention sessions if they desire.

The FCU's incorporation of MI strategies is a critical element for engaging parents, helping them to identify and make the changes that are most important to them, and promoting parenting self-efficacy (Stormshak, DeGarmo et al., 2021). Developed originally for substance use treatment, MI involves the empathetic validation of the individual's experiences along with the strategic identification of areas that the individual seeks to change. MI strategies help individuals discover their reasons for change rather than trying to persuade them they must change, thereby supporting the self-efficacy, hope, and personal commitment needed to motivate change efforts. MI has produced increased engagement in parenting interventions, including participation rates and intervention response (see Stormshak, DeGarmo et al., 2021), and the FCU intervention has promoted improved parenting and child behavioral adjustment in young children with evidence of sustained benefits (Dishion et al., 2014).

A recent adaptation of the FCU designed for families with children entering kindergarten emphasizes school readiness and family-school relationships. In a RCT in which all parents of kindergarteners in select schools were offered participation, engagement with the FCU was high, with 87% of those assigned to the intervention group participating in the 3-session FCU assessment and

receiving the feedback session (Garbacz et al., 2019). About half of the families elected to receive additional intervention sessions focused on parenting skills and academic support, with families receiving 5 intervention sessions on average. Compared with the control group, parents randomized to FCU-Kindergarten showed improved parenting (Stormshak et al., 2020), and teacher-ratings revealed fewer child emotional and behavioral problems (Garbacz et al., 2020), with effects amplified for families experiencing elevated stress and child behavior problems at the start of school. Interestingly, elevated child behavior problems and high contextual stress were also significant predictors of total time engaged with the FCU, which in turn was mediated by parents' motivation to change (Garbacz et al., 2019; Hails et al., 2023a). Importantly, these findings show that in the context of a universally offered school-readiness parent support program, FCU-Kindergarten successfully engaged those families who were most likely to benefit and leveraged parent motivation and self-efficacy to catalyze parent response to the intervention (Resnik et al., 2023).

Designing culturally-relevant intervention content. Increasingly, researchers are exploring intervention modifications that might make preschool-based parent programming more attractive and relevant to families who have been marginalized historically, including Spanish-speaking families and families of color (Mendez & Westerberg, 2012). One goal is to better understand and accommodate the factors that influence family decisions to enroll in a program and that affect retention (Beasley et al., 2021; Wymbs et al., 2023). A second goal is to adjust interventions to improve their relevance and benefits for families affected by adversity and racism (Smith et al., 2022). Further research is needed to enhance the attractiveness and effectiveness of preschool-based parenting programs for diverse families.

Exploring Alternative Strategies for Program Material Design and Delivery Systems

Technology has featured centrally in efforts to improve the reach of parent-focused programming, including increasing flexible access and providing engagement supports (National Academies of Sciences, Engineering, & Medicine, 2016). In addition, researchers are exploring strategies that enhance the value of self-guiding intervention materials. This is particularly important in the wake of the COVID-19 pandemic, which exacerbated staffing shortages in early childhood centers (Adams et al., 2021) and

community mental health (Thomas et al., 2009), creating a need to reach parents who need support with fewer available personnel to provide this support in-person. Along with increasing access to supports for parents in need, intervention models that incorporate telehealth and/or self-guided materials are likely to be more cost-effective than many of the “fully developed” comprehensive parenting programs described above, thereby expanding the potential reach to a higher number of parents of preschoolers.

Online and telehealth intervention delivery. Telehealth models have emerged as a strategy to improve the engagement of families, including those who are traditionally underserved such as rural families and families that identify as racial and/or ethnic minorities (Willis et al., 2022). In addition to increasing flexibility and autonomy with respect to time and schedule of participation, online telehealth modalities are also associated with less stigmatization and normalize help-seeking behavior (Willis et al., 2022). Digital interventions with smartphone compatibility are particularly likely to increase access and reach for low SES families, who are more likely to own a mobile phone than a tablet or desktop computer (Collins et al., 2019; Hall & Bierman, 2015). Moreover, the COVID-19 pandemic and the resulting rapid shift to telehealth has resulted in increased comfort and acceptability of online and telehealth modes of healthcare delivery (Fischer et al., 2022).

The potential for effective telehealth applications of a school readiness intervention was illustrated by Landry and colleagues (2021), who evaluated the virtual delivery of the PALS program. The virtual trial of PALS replicated and extended findings from the prior in-person trial, documenting significant improvements in the targeted parenting skills and increases in child self-regulation skills (attention focus, impulse control, inhibitory control; Landry et al., 2021). One disappointing finding, however, was that online delivery did not promote the expected boost in parent retention through the full course of the intervention, suggesting a need for further stream-lining or tailoring of the program.

More recently, FCU has been expanded to online delivery as part of a clinical trial with parents of young children ages 18 months to 5 years (Stormshak, Matulis, et al., 2021). The goal of the online expansion was to better reach families in rural, underserved areas who have a variety of risk factors, including depression, substance abuse histories, or current substance use. Building on the research and

model of the in-person FCU-Kindergarten delivery system, the online application incorporates the FCU phases of assessment, strengths-based feedback, and motivational interviewing strategies. There are five content modules: positive parenting, proactive parenting, monitoring/limit setting, parent wellness, and substance use and parenting. FCU Online uses empirically supported eHealth strategies, including videos, graphics, and interactive activities supplemented with synchronized text message reminders to encourage parent engagement and learning (Lynch & Horton, 2016). Materials were adapted from the *Everyday Parenting Curriculum* (Dishion et al., 2011; Dishion & Stormshak, 2007). The content was simplified for on-line presentation; brief, entertaining, animated videos were added to present the targeted parenting skills, and interactive activities were included to engage parents in the learning materials (Stormshak, Matulis, et al., 2021). Family feedback shaped the design of the program. Text reminders and a supportive gaming approach were included to further enhance parent engagement and increase the dosage of content delivered, which averaged about 2 hours per parent. Both engagement and outcomes associated with the web-based application suggest that online delivery offers considerable potential for reaching families of young children, especially in rural and underserved areas. The program includes an integrated online administration website that enables management of program features and a special portal designed specifically for providers to view the extent to which families use the online program. Results of the initial RCT of online FCU with school-age youth and families suggest significant effects on both children's emotional problems and parents' self-efficacy (Stormshak et al., 2019). In addition, preliminary findings from another study conducted in the midst of the COVID-19 pandemic suggest that parents' perceived engagement in the FCU was higher than a comparison group of parents who received the FCU in-person prior to the pandemic, with parents who were most impacted by the pandemic and related stressors spending the most time engaging in the FCU delivered via telehealth (Hails et al., 2023b).

Texts and behavioral nudges. In addition to studying the online delivery of interventions, research has also examined the degree to which online texts and materials might enhance engagement in school readiness interventions delivered in other ways. Informed by the field of behavioral economics, the goal is to make small adjustments or additions to intervention messaging (e.g., behavioral enhancements)

in order to nudge parents toward higher levels of intervention engagement and response (Gennetian et al., 2019). For example, Gennetian and colleagues (2019) evaluated the degree to which personalized invitations, text-message reminders, and requests for parent confirmation increased parent attendance at the GRS kick-off school event. The authors also used child-friendly activity trackers and reward stickers along with five parent tip text messages per week to increase parent use of GRS home learning activities. Relative to classrooms using GRS without these enhancements, classrooms using GRS with these behavioral enhancements had higher parent attendance at the kick-off meeting (38% vs. 53%) and more extensive parent use of the GRS home learning activities. However a similar approach using enhanced materials (e.g., personalized invitations, text messages reminders about meetings) produced no significant increases in parent engagement in the ParentCorps program (Hill et al., 2021) raising questions about the reliability of the benefits.

Mayer and colleagues (2019) used behavioral enhancements to increase parent time using a digital library tablet to read with their children. Based on random assignment, intervention group parents received tablets with behavioral enhancements designed to support goal setting, provide text reminders to read, and recognize parent-child reading accomplishments, whereas the control group received digital library tablets without added enhancements. The enhancements doubled the average rate of digital tablet use over the six week period studied. However, these benefits were not replicated in a subsequent study of the digital library tablets by Kalil and colleagues (2023). In that study, adding goal-setting messages to the tablets increased parent-child reading time relative to the digital library alone, but had no effect on child literacy skills. Adding reminder texts to the tablet led to an unexpected decrease in child literacy skills relative to the unenhanced tablet group (with no effect on parent-child reading time.) The researchers concluded that the reminder texts may have annoyed parents and reduced the quality of the parent-child reading. Taken together, these studies suggest that more research is needed to understand how best to optimize the value of behavioral enhancements.

Self-guiding technology-based parent programs. A few studies have examined parent engagement and child school readiness outcomes in online parent-focused programs that are fully self-

guided. For example, McGoron and colleagues (2019) evaluated parent engagement and response to the 5-a-day Parenting program which encouraged parents to use 5 daily activities to support child school readiness. An initial motivational e-intervention and tailored text messages were included to boost participation. Of the 360 parents of preschool children contacted about the program, 94 (25%) expressed interest, and 33 of those parents accessed the video-based content on the intervention website. Despite high levels of parent satisfaction, rates of parent engagement were disappointing. Another self-guided program, EasyPeasy Parenting, provided parents of preschool children with learning games and text messages delivered through an app for 18 weeks (Jelley et al., 2016). In the RCT, rates of parent engagement and retention were disappointing; on average only one-third of the participating parents used the app each week, and only 52% stayed with the program for the full trial period. Positive benefits emerged on two of the seven outcome measures (parent-rated self-efficacy for discipline and limit-setting; child concentration and persistence) but there were no significant effects on the other measures of parenting or child behavioral adjustment. Consistent with the findings of these two studies, Day and Sanders (2018) directly compared a fully self-guided versus provider-supported eHealth delivery of the Triple P program and found that provider support was critical to maintaining parent engagement. Additional research is needed to determine the amount and type of personal support necessary to attract and sustain engagement in eHealth and self-guided versions of preschool parent outreach programs.

Self-guiding home learning activities. Interviews with parents suggest that many would prefer to receive learning activities they can use with their children at home rather than attend school-based parenting events (Marti et al., 2018; Zucker et al., 2022). Home learning activities appear attractive to parents across diverse socio-economic, racial, and ethnic backgrounds; however, parents do not always use these activities in optimal ways (Strickler-Eppard et al., 2019; Vartiainen & Aksela, 2019). Without guidance, many parents rely on direct instruction to manage home learning, rarely providing the autonomy support and scaffolded discovery learning opportunities that are associated with growth in self-regulation skills and approaches to learning (Reinhart et al., 2016). Direct instruction and a narrow focus on correct answers can undermine child motivation and learning engagement; in contrast, strategic and

responsive provision of comments and questions can help scaffold child learning, guiding their attention toward salient features of the materials and supporting the development of flexible, persistent, goal-oriented problem-solving (Fay-Stammbach et al., 2014; Karreman et al., 2006; Valcan et al., 2018).

Coaching parents in the use of home learning activities via home visits or school-based group sessions is quite expensive; designing home learning activities in ways that incorporate guides for optimal use would improve the potential scalability of this intervention approach. However, prior studies suggest that parents are unlikely to invest time in reading text-heavy instructions or go online to watch demonstration videos (Mayer et al., 2019; Vartiainen & Aksela, 2019).

Researchers have begun to explore strategies for designing home learning materials in ways that embed scaffolds for parent support. One example is the recent application of human-centered design (HCD) methods to create self-guiding home activity kits to help parents foster approaches to learning and promote the STEM skills of their preschool children (Bierman, Liben et al., 2022). HCD prioritizes the experiences of the users in product design, using a dynamic process involving observations, brainstorming, and iterative prototype testing and refinement to improve product functionality (Rosinsky et al., 2022; Weeby, 2018). Applying HCD to the design of preschool STEM home activity kits led to changes in kit organization, format, and packaging (Bierman, Liben et al., 2022). In the final version, activity kits were segmented into small, progressive steps with brief illustrated parent tips embedded at each step, giving parents quick, concrete examples of how to scaffold child learning at that step. Pretend play themes and novel challenges were included to frame the activities, increase the fun, and motivate collaborative parent-child problem-solving. Program use was introduced with a brief, child-friendly animated video, and children tracked their progress on an adventures map using enclosed stickers (see Bierman, Liben et al., 2022 for details). A pilot study revealed that parents used these guided activity kits more and evaluated them more positively than kits that contained the same play materials without the segmented organization and embedded parent tips. In addition, for parents with less formal education, the guided activities kits promoted significant gains in the parent's abilities to scaffold new unguided learning activities (Bierman, Liben et al., 2022). More research is needed, but the findings suggest that paying

more attention to the consumers (parents and children) in intervention design might reveal new insights for intervention design that in turn will improve intervention engagement and response.

Addressing the COVID-19 impact on the service needs of families with young children. The COVID-19 pandemic impacted young children and families adversely in multiple ways, adding economic stressors (e.g. changes in employment status or functioning), increasing mental health distress (including depression and anxiety), and disrupting family functioning (including parenting and risk for domestic violence; Lee et al., 2022). Long-term impacts of the pandemic on child adjustment are just beginning to emerge. For example, parents with young children experienced increases in poverty, including difficulties paying rent and maintaining employment, which disproportionately impacted Latine and African-American families (Lordi & Tan, 2023). Increased stress negatively impacted parent-child interactions; for example, parenting involvement and reading time dropped by 26% in Black families (Lordi & Tan, 2023). Escalating rates of anxiety and depression among children during COVID-19 contributed to increased family conflict and impaired parent-child relationships (Russell et al., 2020). Inequities in family's internet access, parent support for home schooling, and learning resources all added to the educational disparities experienced by children from low-income families, particularly young children who were not able to attend school remotely and those identified with disability. Neece and colleagues (2020) reported that nearly 80% of children with a disability experienced decreases in services during the pandemic, challenging their parents who were isolated at home without services and supports. Data suggests that the ECE workforce was reduced by 8.4% during the pandemic, with adverse impact amplified for low-income families, with (Coffey & Khatar, 2022). The long lasting impacts of the pandemic on young children are still unclear, but expected impacts on parents and families will likely last for years to come. Shortages in the work force will continue to impact programming and prevention service delivery in early childcare settings, further supporting the need for creative solutions to service delivery for this population, as well as strategies to increase access to supports addressing child and parent mental health.

Conclusions

Rigorous randomized controlled trials document the value that universal parent-focused programs can have when implemented with intensity during the preschool and early elementary school years (Magnuson & Schindler, 2016). Parenting programs that target child social-emotional learning have unique value because the skill domains addressed by those programs (social competencies, self-regulation skills, and approaches to learning) represent foundational skills at school entry, with capacity to support positive trajectories of child social-behavioral adjustment and learning behaviors that sustain over time (Bierman et al. 2021; Brotman et al., 2016). One approach to helping preschool parents prepare their children for school entry focused on parent management training, adapting strategies used in the clinic for universal delivery (Leijten et al., 2019; Webster-Stratton et al., 2001). Over time, these parent programs expanded to incorporate emerging neurodevelopmental research and add components to build child self-regulation skills (Brotman et al., 2011; Gross et al., 2009). Other program approaches focused on enhancing parent-child relationships by increasing sensitive-responsive parenting and scaffolding (Landry et al., 2021) or strengthening parent instructional support and boosting child approaches to learning (Ford et al., 2009; Bierman et al., 2021; Mendez, 2010), sometimes integrating parent management training with interactive reading to boost parent-child communication and child language skills (Chacko et al., 2018; Leung et al., 2022). Promising findings have validated each of these varied approaches. Future research is needed to clarify the value of the different components included in these intervention approaches, the common vs. distinct ways in which they benefit parents and children, and the degree to which family, parent, or child characteristics affect their acceptability and impact. In addition, new approaches in parent program design are needed to address the pervasive challenge of parent engagement and retention.

One approach is to create more flexible program formats that allow families to tailor intervention to meet their family needs, values, and goals. Examples include the use of MI strategies to help parents clarify their goals and focus change efforts (Stormshak, DeGarmo et al., 2021) and the provision of menus that allow families to select desired intervention options (Stormshak et al., 2020). Applications of technology have potential to increase access to and expand parent engagement, such as telehealth coaching sessions (Landry et al., 2021), online FCU (Stormshak et al., 2019), and the use of

texts and personalized messages (Gennetian et al., 2019). Each of these emerging approaches warrants additional study to better assess the potential, benefits and limitations, and to further refine and optimize the strategy. Future innovation and empirical exploration of these and other intervention strategies has the potential to give more parents the resources and opportunities they desire to enhance their child's social-emotional learning and school success. These flexible approaches may also be more cost-effective, as parents with high needs for support are able to engage with an intervention more intensively than parents with fewer needs in the context of universally offered prevention programs (e.g., Smith et al., 2018). In addition, telehealth and technology-based programming may increase capacity to reach the parents of the many preschool-age children who do not attend center based ECE and may not otherwise have access to parent programming and school readiness resources.

Moving forward with research on parent-focused outreach will require efforts to promote equity. Parent-focused interventions are designed to empower parents to leverage their special relationships to support their children's development and school readiness. Schools also bear responsibility for supporting the school readiness of every child, meeting each child and family where they are at school entry to forge strong family-school partnerships (Sheridan & Garbacz, 2021). Balancing the focus on parent-focused programming, interventions are needed to build educator and school staff capacity to provide equitable support and positive school experiences for families representing diverse socioeconomic, racial/ethnic, and cultural backgrounds (Magnuson, 2022).

In addition, the infrastructure supports for ECE-based parenting programs require attention; currently, the fragmented nature of ECE organization and funding in the U.S. limits capacity for school-based delivery of the intensive, evidence-based programs described in this paper that have proven effective in boosting child school readiness outcomes. Evidence of the potential of strong preschool-based parenting programs to promote lasting benefits for child well-being and school adjustment and success (Bierman et al., 2021; Brotman et al., 2016) argues for ongoing investment to better understand the critical components of successful parent interventions and to identify strategies that support scalable delivery and optimal parent engagement.

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