

# Infant Mental Health in Primary Care

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As the evidence base supporting the foundations of infant mental health practice grows, it is evident that infant mental health must move beyond traditional mental health settings and into the places children naturally visit to ensure access to these empirically supported treatments. The research base, reviewed in this volume, demonstrates the neurobiological plasticity of infants' and young children's brains, their responsiveness to both adversity and positive experiences, the growing availability of effective tools for early identification of risk status, our ability to validly and reliably assess mental health problems and relationship disturbances in young children, and the effectiveness of interventions for common risk factors and disorders. Traditionally, infant mental health treatments are provided through clinical mental health services that serve a small proportion of children. Alternatively, infant mental health approaches have been integrated successfully into child care, where many children spend significant time (Gilliam, Maupin, & Reyes, 2016). Even more children regularly visit a pediatric primary care clinician (PCC). This chapter reviews the rationale for developing early childhood mental health consultation in pediatric primary care and describes one example of such a program.

## Opportunities in Early Childhood Primary Care Mental Health

Pediatric professional organizations emphasize the importance of early childhood and of mental health through public statements and activities. Although the scope of pediatric practice broadly includes many domains of health, the American Academy of Pediatrics (AAP; 2016b) requires that every well child visit in the first 5 years of life include a psychosocial/behavioral assessment, in addition to routine developmental surveillance. Highlighting the important role pediatricians play in the well-being of infants and young children, the AAP has recently published policy statements explicitly defining the role of the pediatrician in addressing early childhood wellness through policy statements focused on early childhood toxic stress, behavioral health screening, and early childhood mental health treatment. In addition, the AAP invested substantial resources on a priority workgroup, the Leadership Work Group on Early Childhood, whose work is continued by a newly developed Council on Early Childhood (AAP, 2016a; AAP Committee on Psychosocial Aspects of Child et al., 2012; Gleason, Goldson, Yogman, Lieser, et al., 2016; Weitzman et al., 2015). Similarly, the American Board of Pediatrics, which certifies pediatricians, recently has expressed commit-

ment to ensuring that pediatricians are trained to meet the needs of children of all ages with mental health concerns and is developing processes to ensure that board-certified pediatricians demonstrate sufficient knowledge related to children's mental health (McMillan, Land, & Leslie, 2017).

In the United States, 95% of children have health insurance, providing ready access to a pediatric PCC who serves as a stable medical home (Kaiser Family Foundation, 2016). The remaining 5% must access medical care in order to attend school. Thus, nearly every child in the United States has at least some access to a pediatric PCC. It is well established that PCCs often serve as the default mental health providers in the country for all ages of children (Kelleher, Campo, & Gardner, 2006). About one pediatric visit in five include a mental health component, and pediatricians write the vast majority of pediatric psychotropic prescriptions in the United States (Gardner et al., 2000).

Pediatric providers are especially well placed to promote early childhood mental health. Young children have 15 scheduled visits in the first 5 years of life and most children have multiple other visits for specific concerns (AAP, 2016b). Some of these visits include immunizations required for school entrance, increasing the chance of attendance (AAP, 2016b). Beginning at birth, every visit requires a "psychosocial/behavioral assessment." Although this process is not explicitly defined, AAP policy and clinical guidelines suggest that this assessment should include interviews, observations, and validated screening tools to identify adversity, including exposure to toxic stress and maternal depression (AAP, 2016b; AAP Committee on Psychosocial Aspects of Child et al., 2012; Weitzman et al., 2015).

The AAP has also provided tools to support pediatricians' practice transformation focused on young children's mental health. For example, the AAP's Task Force on Mental Health developed a toolkit describing validated screens that can be used to identify young children with mental health problems (AAP Task Force on Mental Health, 2009). Other practice transformation tools are not developmentally specific but may be valuable for the care of young children. For example, the "Algorithms for Primary Care" highlight the importance of both a strengths-based approach, using validated measures to obtain information from multiple

adults, and reassessment (AAP Task Force on Mental Health, 2009).

The common factors approach, derived from the work of Wissow and colleagues (2011) and disseminated by the AAP, is an empirically derived approach to enhancing primary care mental health care for older children. This model adjusts the established, empirically supported principles of the adult chronic care model (CCM) into approaches that are feasible in pediatric primary care mental health (Wissow, Anthony, et al., 2008). These adaptations of the chronic care model define ways a non-specialist pediatric PCC can provide first-line management of a clinical mental health concern effectively without needing to become a child psychiatrist. For example, the pediatric common factors operationalizes the principle of implementing evidence-based approaches to include an emphasis on empirically supported communication techniques and implementation of evidence-based strategies to address a symptom cluster, even if the diagnosis is not fully established. For example, for older children with disruptive behavior problems, tangible rewards are included in 89% of evidence-based treatments and time out is present in 70% (Wissow, Anthony, et al., 2008). Thus, teaching parents about token economies to address disruptive behaviors in school-age children is an example of implementing a common factors approach to disruptive behavior patterns. The approach does not suggest that the components of the evidence-based practice are equivalent to specialty treatment, but that using empirically supported strategies is an appropriate first step for a PCC to implement while developing a more comprehensive plan. The common factors approach also addresses the health delivery system, with an awareness of the importance of the whole office to work together to address complex medical issues, especially through care coordination and the importance of generalist–specialist relationships for optimal care.

Finally, the pediatric common factors approach incorporates effective communication as one of the evidence-based practices, and one that expands the efficacy of patient education, another core of the CCM. The AAP has developed a valuable tool that summarizes the components of effective communication with parents around any mental health concern, regardless of age. The communication skills, defined as the "HELP" mnemonic focus on "Hope, empathy, language, loyalty, permission,

partnership, and plan,” can be incorporated into a visit without extending the visit length (Foy, Kelleher, Laraque, & American Academy of Pediatrics Task Force on Mental Health, 2010; Wissow, Gadowski, et al., 2008). A 3-hour training in the HELP tool resulted in decreased parental stress and decreased child impairment 6 months after the training, as well as increased overall patient-centered behaviors, which are associated with decreased parent and child report of symptoms (Wissow, Gadowski, et al., 2008; Wissow et al., 2011).

### Barriers and Challenges in Primary Care Early Childhood Mental Health

Despite these opportunities for primary care visits to offer support for early childhood mental health problems, some challenges exist. For example, although parents view their pediatrician as an important resource in addressing behavioral and emotional issues in their young child, few actually bring up these concerns, which results in limited discussions (Brown, Wissow, & Riley, 2007; Ellingson, Briggs-Gowan, Carter, & Horwitz, 2004; Horwitz, Gary, Briggs-Gowan, & Carter, 2003; Reijneveld, de Meer, Wiefferink, & Crone, 2008). Although PCC reports indicate a substantial increase in use of standardized screening tools for developmental assessments, still fewer than half of pediatricians report using structured measures to assess for developmental delays or mental health needs, which results in screening in about one in five visits (Gardner, Kelleher, Pajer, & Campo, 2003; Radecki, Sand-Loud, O’Connor, Sharp, & Olson, 2011).

Communication styles of some PCCs, including closed-ended questions or nonverbal signals, may discourage parents’ from full disclosure of their concerns (Wissow, Larson, Anderson, & Hadjiisky, 2005). Research also suggests that pediatric providers and parents have different experiences about what is discussed in well-child visits. In interviews immediately after a well-child visit, in 75% of the visits in which PCCs reported that mental health topics had been discussed, parents reported that these topics had not been discussed, with higher rates of disagreement when parents were seeking help for mental health concerns (Brown & Wissow, 2008). Although data related to time from concern to diagnosis for general mental health concerns are not available, studies of children

with autism spectrum disorders indicate nearly a 3-year delay between parental concern being shared with a provider and formal diagnosis being made (Zuckerman, Lindly, & Sinche, 2015). It is likely that the delay for other mental health concerns that do not receive the same attention as autism spectrum disorders may be even longer.

Even when children with mental health concerns are identified in the primary care setting, a number of factors limit access to the indicated specialty mental health care. In fact, across a range of settings, fewer than half of children with an impairing disorder receive any treatment at all (Horwitz et al., 2003; Horwitz, Leaf, & Leventhal, 1998; Luby, Stalets, & Belden, 2007; Olfson, Crystal, Huang, & Gerhard, 2010). PCC-reported barriers to identification and management for all age groups include time in the PCC visit, long waits for mental health visits (Horwitz et al., 2007). As reviewed in the recent AAP policy statement on access to specialty early childhood mental health care, additional barriers include the very limited training PCCs receive on early childhood mental health during residency training (AAP, Committee on Psychosocial Aspects of Child and Family Health, & Task Force on Mental Health, 2009; Gleason, Goldson, Yogman, & Committee on Psychosocial Aspects of the Child, 2016). In fact, in 36 months of pediatric training, only 1 month of developmental-behavioral pediatrics is required, and there is no requirement for any exposure to child and adolescent psychiatry, let alone early childhood mental health (Accreditation for Graduate Medical Education, 2013). Similarly, in the family medicine training requirements, no psychiatry exposure is required, although residents must be educated in the “diagnosis and management of common mental illnesses” (Accreditation for Graduate Medical Education, 2016, p. 20).

Referrals also present potential barriers to care. Although accurate counts of trained infant and early childhood mental health providers are difficult to obtain, there is no question that the trained workforce is insufficient for the numbers of young children with a mental health problem who require treatment. This workforce shortage likely results from limited training focused on early childhood that is available in graduate and medical schools, disproportionate access to evidence-based treatments closer to academic centers, and a lack of sufficient reimbursement for care for young children,

which necessarily takes more time than that for older children and adults (Gleason, Goldson, Yogman, Lieser, et al., 2016). Beyond the availability of referral sources, there are other factors that seem to play important roles in the success of referrals to early childhood mental health specialty services. For example, how parents understand their child's problem in terms of severity and how they conceptualize the problem is associated with help-seeking behaviors (Godoy, Mian, Eisenhower, & Carter, 2014). One study showed that the association between parent concern and parent report of clinical symptoms on a validated measure was substantially lower in children under age 3 than in preschoolers ages 3–6 years (Godoy, Carter, Silver, Dickstein, & Seifer, 2014). Studies show that in older children, referral success to offsite providers is low, with only 38–52% of scheduled intake appointments being kept and well under half of referred children receiving ongoing services (Gopalan et al., 2010; Kelleher et al., 2006). Although, in older children, referral success has been reported to be as high as 80% for mental health appointments in the primary care setting (e.g., Valley et al., 2008), rates of engagement for early childhood PCC-based mental health evaluations are 55–60% (Godoy, Carter, et al., 2014). A number of parent, child, provider, family, and clinic factors have been posited to explain the barriers to successful referrals, though not specifically as they relate to young children (Gopalan et al., 2010).

The current status of our early childhood primary care system suggests that primary care offers many opportunities to promote early childhood mental health by early identification, implementation of first-line interventions to mitigate risk or address mild problems, and use of enhanced communication strategies to increase access to specialty care when needed. However, current limitations of training, time, and access to specialty care limit the potential for real progress.

### Primary Care Integrated Care Models

To address the challenges of addressing mental health needs of children in primary care, a number of innovative models have been developed. In older children, the majority of models can be considered to fall loosely into one of two basic models—a child psychiatry access program (CPAP), in which a regional hub serves a popu-

lation, offering phone or other telehealth support to pediatric PCCs in the geographic area, or an office-based model serving a practice or a group of practices with consultation and/or implementation of evidence-based treatments (EBTs).

### Child Psychiatry Access Programs

CPAPs, of which the Massachusetts Child Psychiatry Access Program (MCPAP) serves as the prototype, offer easily accessible (same-day) consultation, primarily by phone, to all PCCs serving children of all ages in a geographic area. In Massachusetts, the program covers the whole state and all children, regardless of insurance status. Each program has developed its own unique funding stream model, but in Massachusetts, the service is covered by the third-party payers, both private and Medicaid. PCCs who use the program report a decrease in perceived barriers related to accessing mental health care, increased sense of competence, and high rates of satisfaction (Sarvet et al., 2010). A similar program in the state of Washington has resulted in increased access to care for children in foster care and no overall change in pediatric mental health costs (Hilt et al., 2013). Nationally, growth of these programs has resulted in a national association of programs (National Association of Child and Adolescent Psychiatry Access Programs; *nncpap.org*) and recognition in the 21st Century Cures Act (Public Law 114-255), which was signed into law in 2016, with \$9 million appropriated for grants to support child psychiatry consultation programs in states or regions as well as \$5 million to support consultation focused on maternal mental health.

Although CPAP models offer tremendous population health opportunities, they tend to focus consultation on older children, despite the high frequency of scheduled appointments young children have in the medical home. For example, in Washington and Massachusetts, only 12 and 14% of consultations, respectively, were about children birth to 5 years, with only 5% for children birth to 3 years, who have the most frequently scheduled appointments (Hilt et al., 2013; Holt, 2010).

### Office-Based Collaborative Care

The potential for diversity of models in the office-based program is vast, ranging from a mental health provider who practices in the

same location but has limited integration into the pediatric practice to a fully integrated model that includes warm hand-offs, easy communication among providers, and a seamless experience for patients between the primary care and specialty care they receive. The most rigorously studied model of this type examined outcomes of a multidisciplinary team led by a child and adolescent psychiatrist, including a care manager and social worker who provided time-limited on-site treatment, psychoeducation, and care navigation (Kolko, Campo, Kilbourne, & Kelleher, 2012). In this model, nearly 80% of patients, who were generally over 6 years of age, completed recommended treatment with significantly better clinical outcomes for attention-deficit/hyperactivity disorder (ADHD) and disruptive behavior problems than community care as usual.

### ***Office-Based Early Childhood Approaches***

Some primary care office-based programs focus on enhancing services through the addition of other professionals, who expand the services offered within the practice. Although these are collaborative approaches, their focus is not specifically to expand the knowledge or competence of the PCCs in the practice.

Of the population approaches, the model most specifically focused on promoting social-emotional health is the Video Interaction Project. In this program, offered in practices serving low-income families, the parent-child dyad is videotaped for 5 minutes interacting with a book or toy provided by the program, followed by strengths-based feedback about the interaction by a trained developmental specialist. At follow-up, compared to control families, families involved in the interaction demonstrated reduced rates of parental depression, decreased use of corporal punishment, positive parent-child interactions, and lower separation anxiety, externalizing, and hyperactivity patterns (Mendelsohn et al., 2011; Weisleder et al., 2016).

Healthy Steps is a universal primary care developmental support program in which Healthy Steps specialists provide developmental screening, address concerns, offer anticipatory guidance, and sometimes can provide home visits (Zuckerman et al., 2004). The model is associated with decreases in harsh punishment, and possibly, increased focus on the child's behaviors or emotions (Minkovitz et al., 2007; Zuckerman et al., 2004). In a quasi-experimental study, chil-

dren whose parents had a history of adversity but received Healthy Steps had better scores on the Ages and Stages: Social-Emotional scale compared to those who did not receive Healthy Steps, suggesting that the Healthy Steps intervention may moderate the association between parental adversity and child social-emotional difficulties (Briggs et al., 2014).

At least two office-based models, primarily in academic settings, have expanded the Healthy Steps model to provide more consultative services as well, for all ages. For example, at the University of Colorado, Project CLIMB (Consultation Liaison in Mental Health and Behavior) offers Healthy Start developmental supports and on-site mental health consultation for all ages, but with an emphasis on prevention and early childhood treatment in a resident training clinic (Talmi et al., 2016). Project Climb consultants from psychology and psychiatry focus on expanding the capacity of PCCs to address common emotional and behavioral problems, and about 10% of primary care visits involve consultation, often around postpartum depression, developmental delay, and school and behavioral issues in an academic pediatric clinic (Talmi et al., 2016). At Montefiore Medical Center, a similar program directed by psychologists offers Healthy Steps and additional consultation to support early childhood mental health in primary care. Published outcomes focus primarily on Healthy Steps interventions and positive outcome on the Ages and Stages Questionnaire: Social-Emotional scale among children who received intervention from a co-located psychology consultant (Briggs et al., 2012, 2014).

An independent program in Florida developed an intervention focused specifically on training and supporting PCCs in implementing social-emotional screening. Six months after training, 89% of the 27 providers reported that screening was more effective than history alone, and 70% had continued to screen after the program had ended (Fallucco et al., 2016).

### ***Implementing Established EBPs in Primary Care Offices***

Increasingly, studies are examining the outcomes of established family-focused EBP provided in the primary care setting (Leslie et al., 2016). A number of EBTs have been adapted to or designed specifically for the primary care setting, including Triple P-Positive Parenting Program, the Incredible Years Series (IYS),

Parent–Child Interaction Therapy (PCIT), and Parent Management Training—Oregon Model. Implementation of the IYS was shown to be more effective in reducing child disruptive behaviors than wait-list controls in two studies but not superior to psychoeducational materials (Lavigne et al., 2008; Perrin, Sheldrick, McMenamy, Henson, & Carter, 2014). Triple P (Primary Care) was associated with improved parenting practices in two of the three published randomized controlled trials compared to wait-list controls, but only reduced child disruptive behavior patterns in one of the studies (McCormick et al., 2014; Spijkers, Jansen, & Reijneveld, 2013; Turner & Sanders, 2006). Like IYS, a small study of PCIT in the primary care setting did not yield superior outcomes compared to psychoeducational materials, although both groups improved over time (Berkovits, O’Brien, Carter, & Eyberg, 2010). The Parent Management Training—Oregon Model, focused on a larger age range, was associated with parent-reported improvement in parenting practices and decreased child emotionality and disruptive behavior problems but not teacher-reported changes (Kjøbli & Ogen, 2012). A brief intervention focused on attachment and social learning for parents of children 8 months old resulted in improved parenting practices at 24 months, although there were no difference in child outcomes (Hiscock, Bayer, Hampton, Ukoumunne, & Wake, 2008).

### ***Lessons from Other Early Childhood Consultation Models***

Beyond primary care, consultation in early childhood mental health is well established as an evidence-informed practice in child care settings; in fact, in the early childhood mental health world, when the phrase “early childhood mental health consultation” (ECMHC) is used, it is understood to apply to child care contexts, such as the Georgetown Center for Early Childhood Mental Health Consultation (n.d.). Although the form of ECMHC in child care setting varies, the principles are well defined (Duran et al., 2008; Gilliam & Shahar, 2006). ECMHC begins with the consultative stance, a respectful, strengths-based approach to partnering with the child care professionals and employing techniques based on genuine curiosity and reflective practices. The goal of ECMHC is to support providers in expanding their capacity to serve all of children in their

care, those with and without risks for adverse mental health outcomes. ECMHC can be focused on programs, specific children, or both; all consultation considers the family as the center of the child’s world and promotes positive relationships. Access to ECMHC in early childhood has been associated with decreased expulsions and increased positive factors in the classroom environment. In the first randomized controlled trial of ECMHC as an intervention, children in centers randomly assigned to ECMHC had lower levels of disruptive behavior problems, hyperactivity, and total problems than those without access to ECMHC, although rates of expulsions did not differ in this 6-month intervention (Gilliam et al., 2016).

### **Selection of Collaborative Care Approaches for a Community**

Each of the existing models of care offers a valuable component to promoting early childhood mental health in primary care, and specific models of integrated care may be particularly suited to a community’s resources and needs. Child psychiatry access programs serve a community, not a single practice group, and expand the capacity of the PCC to identify and address mental health problems in the context of any health maintenance or sick visit. These models may be particularly well suited to areas with limited access to specialty mental health services, allowing PCCs from multiple practices to be able to receive consultation, possibly expanding the clinical impact of the consultation across a larger pediatric population. However, in practice, they disproportionately focus on older children, perhaps in part because some of the skills for early identification of young children with mental health risks and concerns may be further outside the comfort zone for some PCCs, making remote consultation by phone or e-mail feel insufficient for PCCs to implement recommendations. In fact, this may contribute to the relatively low use of consultations around young children in CPAP programs. It is also likely that the consultants similarly had limited clinical experience in infant and early childhood mental health.

Co-located prevention services, such as VIP or Healthy Steps, are valuable as prevention approaches to promote general well-being. However, they do not have the capacity to address significant clinical issues and can change the

PCC practice only indirectly, if at all. Co-located EBT models alone offer enhanced access to services but may not influence the mental health promotion activities for children not identified as “in need” of a referral. These office-based models offer higher intensity services to a smaller provider (and patient) population.

### **A Hybrid Model of Early Childhood Collaborative Care: The Louisiana Example**

In Louisiana, we developed a consultative model to maximize the strengths of both the child psychiatry access model and the office-based model in a state with relatively low access to specialty mental health services. Specifically, in 2016, Louisiana ranked 50th on the Kids Count Health Indicator and 48th overall (Casey, 2016). For example, in one type of mental health professional treatment, access to child and adolescent psychiatrists, Louisiana is rated by the American Academy of Child and Adolescent Psychiatry as a “severe shortage” area, with 7.8 child and adolescent psychiatrists per 100,000 children, when 47/100,000 is considered sufficient to provide care. Although information about other mental health professionals’ workforce shortages are not readily available, there is no indication that the relative deficit is different. Despite the general shortage of mental health providers, Louisiana has a relative strengths in early childhood mental health and in collaborative care. Specifically, Louisiana is home to two nationally recognized academic training programs for postgraduate mental health training in early childhood mental health: Tulane University and Louisiana State University. Additionally, Tulane is one of nine Triple Board training programs in the country. These programs train residents in a combined program of pediatrics, psychiatry, and child and adolescent psychiatry, which is well suited to collaborative care.

The primary care early childhood mental health consultation (PC ECMHC) model has been implemented through two different funding mechanisms in two different communities, the greater New Orleans area and the greater Lafayette area, a population center in southwestern Louisiana. The remainder of this chapter describes the principles underlying the model and early implementation outcomes of the Tulane Early Childhood Collaborative (TECC) in the greater New Orleans area.

### **Structure of the TECC**

#### *Interdisciplinary Team*

The core TECC team includes psychiatry and psychology faculty who administer the program and provide the bulk of consultation services in the pediatric community. Child and adolescent psychiatry fellows, as well as Triple Board residents, participate in consultation, with increasing autonomy as they become familiar with the principles and techniques of consultation. Although the team includes multiple people, the capacity of the team is less than one full-time equivalent in total, and the training model requires co-location of trainees and faculty for fidelity to the model.

#### *Pediatric Partners*

The consultation program is open to all pediatric providers in the greater New Orleans area, including pediatricians, family practice providers, and nurse practitioners who care for children. Providers are invited through bulk e-mails to professional organizations and by direct contact with the providers. Experience has confirmed that direct contact and existing relationships contribute to effective recruitment and engagement of providers. Pediatric residents, including categorical residents, medical-pediatrics residents, and Triple Board residents are all invited to participate in the program as part of didactics.

#### *Training*

The TECC is housed within an academic department with strong psychology, child and adolescent psychiatry, and Triple Board (pediatrics, psychiatry, and child and adolescent psychiatry) training programs. Additionally, categorical pediatric residents are required to rotate in child psychiatry and participate as consultants. Medical students also rotate with the child psychiatry fellows. This model provides valuable experiences in collaborative care for an interdisciplinary group of trainees, who may not otherwise have had this opportunity to work outside of their typical training setting. The model also expands the capacity of the mental health trainees by providing them direct contact with the pediatric partners, allowing them to understand the opportunities for mental health support in these settings, as well as the restrictions related to mental health promotion in primary care.

This is a valuable skills set for a developing health care system that, as it stands, demands integrated care approaches. Beyond consultation skills, the psychiatry and psychology trainees learn about efficient, validated screening approaches, brief intervention strategies with a focus on effective communication strategies, and an extensive introduction to local and optimal systems-based practices related to clinical and basic needs services to promote well-being in families with young children.

### *Consultation Menu*

To address the varied needs and skills of the partner pediatricians, the TECC model offers a broad menu of consultation supports and invites partners to select the components that meet their practices' needs.

*Website.* The least intensive support is access to a website focused on primary care tools for early childhood mental health services ([www.tulane.edu/som/tecc](http://www.tulane.edu/som/tecc)). The website offers non-proprietary, validated tools for use in primary care, resources about development, and handouts for parents about common mental health concerns and typical behavioral challenges. The website also offers resources related to the rationale for integrating early childhood mental health into primary care, which may be of use for policymakers.

*Inservice Trainings.* TECC offers “lunch and learn” didactics and Grand Rounds for the partner pediatric providers based on topics of interest for the providers. Topics include use of validated screening in young children; early identification of autism, ADHD, and anxiety; discussing positive parenting approaches with parents; identifying effects of trauma exposure in young children and their families; and pediatric management of maternal depression.

*Remote Consultation.* TECC consultants are available to pediatric partners for e-mail and phone consultation about specific clinical scenarios or patients. This portion of the consultation program, modeled after the child psychiatry access programs, allows pediatric providers as-needed information about identifying, discussing, and providing first-line management of early childhood mental health consultation. Common topics for remote consultation questions include identifying local resources,

recommended assessment strategies for hyperactivity in young children, and the role of medication for ADHD or other disorders in young children, although a range of consultation questions has been addressed. Unlike typical child psychiatry access programs, the TECC does not have the capacity to guarantee immediate response to calls, although responses within 1 day are the norm. When a consultation question is more complex, TECC consultants can offer an evaluation consultation at the TECC offices to guide further recommendations.

*On-Site Consultation.* The source of most consultations is in the pediatric primary care setting. TECC consultants schedule one half-day per week on site with pediatric partners. The format for these on-site consultation days varies substantially to meet the needs of the pediatric providers. PCCs may schedule children about whom they have specific questions or concerns to be seen by the consultant, they may “curbside” the consultant about children seen for routine or sick visits that day, or about topics not specific to the children in clinic at that time. Additionally, TECC consultants support implementation of social-emotional and environmental screening in the pediatric sessions.

### *Core Principles of Consultation*

Like the ECMHC child care models, TECC consultation is strengths-based, recognizing the existing strengths and skills of the pediatric partner, as well as highlighting strengths in the child and family system. The model is consultee-driven, meeting the practice “where they are” and joining with the practice and providers to develop a consultation approach that will be most likely to expand the capacity of the medical home to address the needs of healthy children and those at risk of mental health problems. TECC consultants work with not only physicians but also office managers, care coordinators, and nurses to support engagement in consultation and ultimately practice transformation.

The TECC program focuses on promoting features of the Common Factors approach, with some adaptations to early childhood content. Specifically, all “lunch and learn” didactics include examples of implementing the HELP mnemonic to promote effective communication related to mental health issues. Consulta-

tion feedback emphasizes use of these skills, not only explicitly but also through modeling the skills. The program consistently emphasizes implementation of a selected group of principles from EBTs and recommended practices.

1. TECC consultants promote the use of validated screening measures to identify children at risk, and tracking symptoms over time is a part of most requested consultations. In two practices, the on-site consultation model includes supporting universal screening for social–emotional and environmental risks on the days of consultation, with a goal of generalizing the use of these measures. First, an attempt is made to provide PCCs with recommended tools to track symptoms over time after a consultation about a specific child or a specific mental health concern. Environmental screening, using a modified version of the Safe Environment for Every Kid screen, identifies adverse life experiences, including food insecurity, housing insecurity, maltreatment, parental depression and stress, gun exposure, exposure to violence, and other potentially traumatic life events. This screening is intended to increase awareness of factors in a child’s caregiving environment that may protect or increase risk of mental health problems.

2. The consultation intentionally highlights the importance of reviewing maternal well-being and parent–child relationships as part of early childhood primary care, promoting screening and also demonstrating the opportunities to observe signs of healthy or challenging parent–child relationships in the clinical observation.

3. Interventions drawn from the common-factors approaches are commonly recommended to parents in the TECC and to their providers, using verbal and written recommendations, as well as concrete patient education tools. Three categories are most commonly recommended. Specifically, the principles of positive parenting used in the four major EBTs for disruptive behavior disorders in young children are verbally recommended and included in handouts on the website. This approach is presented in a handout using a pyramid (Figure 36.1), with a foundation of regular positive reinforcement in response to positive behaviors. The second level, which is to be employed selectively, involves withdrawing attention from provocative or annoying but not unsafe behaviors. The top level, which is to be used sparingly, encour-

ages consistent, neutral, safe consequences for truly unsafe or unacceptable behaviors. For preschoolers with anxiety-related patterns, relaxation strategies including deep breathing and muscle relaxation activities are encouraged as first-line approaches for providers to use, in conjunction with helping a parent ensure that the child is safe. Last, parental self-care, including adult relaxation strategies, development of supportive community networks, and referrals to their own treatment, is a commonly recommended intervention for parents experiencing high levels of stress. These recommendations are buttressed by almost universal promotion of a free app, Vroom, which provides parents developmentally targeted “brain building” activities they can do with their child, and positive parental reinforcement for doing the activities. Development of the app is based on decades of research focused on early childhood development and represents a state-of-the-art tool for parents to take home with them.

4. Following the chronic care model (CCM), the TECC prioritizes follow-up for referrals generated through consultation. The knowledge gained from the follow-up is shared with partner practices to support their ability to maximize referral success.

In each partner practice, the priorities of the practice drive specific innovative partnerships. For example, in a federally qualified health center, the consultant has partnered with a midwife to provide the mental health components of a group prenatal care model, with attention to maternal depression, domestic violence, parent–child attachment, and anticipatory guidance related to social–emotional development. In a separate practice, a partner PCC was interested in maternal depression screening and the TECC supported her in developing a universal screening in the postpartum period. In an academic setting, the TECC consultant supports the residents with universal social–emotional and environmental screening, now seeing a significant decrease in their dependence on her for support with screen interpretation.

### ***Selected Outcomes and Lessons Learned***

In the first 18 months of the program, 96 providers were enrolled, with a mean of 7.6 years since medical school graduation (Gleason, Middleton, & Stevens, 2016). Of the enrollees, 77%

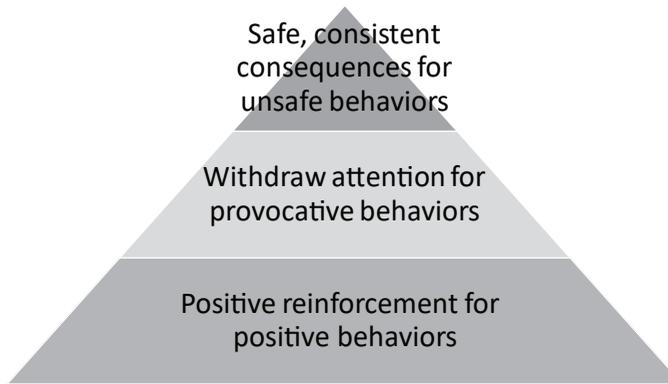


FIGURE 36.1. Pyramid model for promoting positive behaviors.

were women, nearly two-thirds (63.3%) were general pediatricians, and just under half were residents (46.6%). Unexpectedly, partners did not report significant differences in attitudes toward or knowledge about early childhood mental health in primary care based on gender, but partners who were out of medical school at least 5 years reported more comfort managing early childhood mental health concerns than those closer to medical school, 2.3 versus 3.2  $t(82) = 2.9, p \leq .005$ . However, pediatric partners who specialized in adult care, such as medicine–pediatrics ( $n = 18$ ) or family practice ( $n = 1$ ), had a more negative attitude toward early childhood mental health in pediatric care on the Physician Belief Scale than categorical or Triple-Board-trained partners,  $F(80) = 1.4, p \leq .02$ , and were less likely to report sufficient resources in the community,  $F(87) = 1.6, p \leq .01$ , compared to the baseline questionnaire.

In the first 18 months, with about 12 months of a fully staffed team, the TECC provided 232 on-site consultations involving families, 117 on-site consultations with just the pediatric partner, and 10 off-site consultations, five by phone/e-mail with the pediatric partner, and five with the patient present.

At 1-year follow-up, all providers who had been enrolled for at least 2 months were invited to respond, regardless of whether they had used consultation. The respondents reported more comfort in managing infant mental health concerns, including behavior problems, hyperactivity, emotional problems, parent–child relationship problems, peer relationship concerns, maternal depression, and trauma exposure compared to their reports at baseline, and

approached a significant increase in practicing infant mental health skills more frequently.

Specifically, the areas of early childhood mental health practice in which the providers felt significantly more comfortable after 1 year of consultation were managing parent–child relationships and exposure to traumatic events. Specific practice elements that increased in year 1 included use of a measure to identify mood or anxiety, 1.3 to 2.1,  $t(11) = 2.3, p \leq .05$ , and identifying trauma exposure, 1.3 to 1.8,  $t(11) = 2.6, p < .03$ .

Anecdotally, sophistication of consultation questions increased substantially over the course of consultation with some individual providers. For example, one provider’s original consultation was “Could you help me with this child? There’s something going on.”

A more recent consultation was as follows:

“She is 5 years old, in K, and her teacher requested that mother get her evaluated. Her main issues have been inattentiveness, not completing in-class work, not wanting to follow teacher’s directions, and talking (a lot) in class. Mother states that she listens to her at home, finishes HW; however, she has to be right next to her, with constant reminders to complete work. I’ve given her the Vanderbilt forms, which she will return to me. I’d like you to see him as well, as this seems to be a new issue for her (no known problems last year), and there have been some changes in the home. She has a new baby sister too. (She is the middle child now—she also has an older sister.) Her pet died recently. She does not like school either (has friends, not bullied . . .). So think there may be some other issues af-

fecting her behavior (in addition to possible ADHD).”

This more expansive consultation involves use of validated measures, consideration of contextual factors, and a more refined approach to the differential diagnosis, which is not uncommonly noted by our consultants.

Despite substantial progress in work with ongoing partners, the process also has provided important lessons and some challenges. First, this model of consultation focused on supporting another provider’s development as a priority rather than providing direct service, is a significant paradigm shift from most clinical care. Training consultants to shift from an active or directive stance to a consultative stance has required multiple iterations of training. Additionally, though not surprising, the consultation model depends on building effective relationships. In practices with high turnover in staff, the consultation process requires that consultants continually rebuild relationships with new pediatric partners.

In addition, the systems pressures on pediatric partners shape the consultation process in a number of ways. First, consultants serve as a support for providers whose systems have high expectations on volume or productivity, and a substantial number of conversations focus on the pediatric partner’s own self-care needs. Additionally, in some settings in which providers experience high demands, it can take longer to engage in a process of practice transformation. In these settings, consultation sometimes focuses on supporting well-child visits by providing screening and supplementary anticipatory guidance or, on the other end of the spectrum, providing scheduled, more extensive diagnostic consultations with less concurrent involvement from the pediatric partner. Although remote consultation is an option in the project, on-site partnerships are by far the most common form of consultation being used.

## Summary

The pediatric primary care setting offers substantial opportunities for enhanced mental health services and for supporting the development of pediatric providers as first-line mental health providers. A range of models in other age groups and other settings suggest that hub-based remote consultation alone is unlikely to

address the needs of very young children. The TECC model was guided by lessons learned in other approaches and provides promising preliminary outcomes for meeting the needs of pediatric providers in this community. Further exploration of utilization of the services and patient-specific outcomes will provide further information about the effects of the program.

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