

BEHAVIORAL HEALTH SERVICES IN PEDIATRIC PRIMARY CARE:

Meeting the Needs in CONNECTICUT



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About the Child Health and Development Institute of Connecticut:

The Child Health and Development Institute of Connecticut (CHDI) is a not-for-profit organization established to promote and maximize the healthy physical, behavioral, emotional, cognitive and social development of children throughout Connecticut. CHDI works to ensure that children in Connecticut who are disadvantaged will have access to and make use of a comprehensive, effective, community-based health and mental health care system.

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INTRODUCTION

Although as many as 20% of American children have an identifiable mental health disorder, 80% of those who need behavioral health care don't receive appropriate services.²

For most children with behavioral health disorders and their families, a pediatric provider may be the first and often only health care provider they see. Despite findings that between 24 and 50% of pediatric office visits involve a behavioral, emotional or educational concern,^{3,4} most pediatric providers do not have specialized training or expertise in identifying or treating behavioral health disorders.^{5,6} When the problems are mild or transient, medical treatment (such as medications for attention deficits) prescribed by a knowledgeable pediatric provider may be timely, economical, and effective. When children's behavioral health problems are longer lasting, or of moderate or severe intensity, however, they need evaluation and treatment by a behavioral health specialist.

This report provides a brief overview of the child behavioral health disorders encountered by pediatric primary care providers and their responses to them. It also reviews approaches that show promise in integrating behavioral health services into pediatric care. It concludes with recommendations for action.

“The burden of suffering experienced by children with mental health needs and their families has created a health crisis in this country. Growing numbers of children are suffering needlessly because their emotional, behavioral, and developmental needs are not being met by those very institutions which were explicitly created to take care of them.”¹

(United States Public Health Service)



CHILDREN WITH BEHAVIORAL HEALTH DISORDERS ENCOUNTERED IN PEDIATRIC PRACTICE

Child health care providers report that between 15 to 27% of their patients have behavioral health problems.^{6,7,8} Treating children with behavioral health problems in pediatric practice places a potentially heavy burden on pediatric providers – including pediatricians, family physicians, nurse practitioners, and physician assistants. Children with behavioral health disorders and their families use *more types* of pediatric health care services *more often* and at a *higher overall cost* than other children and families.^{5,7,9} At the same time, there is a shortage of developmentally-trained psychiatrists and psychologists to meet pediatric behavioral health care needs, even in affluent communities with large health care provider systems.¹⁰ To compound these challenges, most behavioral health disorders seen in pediatric patients have long term consequences and therefore merit identification and intervention.^{11,12}

Pediatric primary care providers must be highly judicious in determining who, when and how to refer, and how best to address behavioral health issues within their practices when outside resources are not readily available. The dilemmas faced by pediatric providers have intensified over the past decade due to increasing pressure to contain costs and treat more children in less time for lower fees with escalating costs (e.g., increasing malpractice premiums; costly diagnostic and treatment

technologies). At the same time, increasing clinical and scientific research on the prevalence of children's behavioral health problems, and greater awareness of these problems among parents, teachers and others who interact with children, has increased demand for services. Although the circumstances and context of general pediatric practice have changed, pediatric care providers still – and perhaps even increasingly – are being asked to assess and manage their patients' psychosocial difficulties.¹³

The most commonly occurring behavioral health problems among children include attentional difficulties, mood and anxiety problems, externalizing problems such as conduct and substance use disorders, and learning problems. Autism and schizophrenia occur, although infrequently, but when present these conditions result in very serious problems with a child's social, emotional, and cognitive development.

Further information about the main types of childhood behavioral health problems, with references for readers interested in greater detail, are presented on pages 3-4.

CHILDHOOD BEHAVIORAL HEALTH PROBLEMS

ATTENTION DEFICIT DISORDER WITH/WITHOUT HYPERACTIVITY (ADD/ADHD)

ADD/ADHD involves problems with maintaining attention and concentration and managing impulsivity and hyperactivity. Prevalence estimates for school age children in the U.S. are 3-7%, although some studies have reported rates as high as 17% when broad definitions are used. ADHD is diagnosed four times more often in boys than in girls. Children diagnosed with ADHD are at risk for later problems with drugs, alcohol, and cigarettes¹⁴ and for depression, anxiety, and conduct disorders¹⁵ in adolescence. In one study, pediatricians reported high levels of confidence in their ability to screen and identify, diagnose, and prescribe stimulant medications for ADHD.⁶

MOOD AND ANXIETY DISORDERS

About 10% of children suffer from an anxiety disorder (i.e., generalized anxiety disorder, posttraumatic stress disorder, obsessive-compulsive disorder, separation anxiety disorder, social phobia).¹⁶ Children's anxiety disorders often co-occur with depression. About 3% of pre-adolescent children are affected by depression, with equal rates for boys and girls. In adolescence the prevalence increases and is double for girls (14%) compared to boys (7%)¹⁷. Bipolar disorder (manic-depressive illness), "characterized by recurrent episodes of depression, mania, and/or mixed symptom states",¹⁸ is diagnosed in only 1% of adolescents.¹⁹ Although there is uncertainty about whether it can be diagnosed in younger children, when it is identified it is often accompanied by other very serious conditions and interferes with academic and interpersonal functioning.²⁰ Pediatricians report that they have variable levels of confidence in diagnosing mood and anxiety disorders and that they prescribe selective serotonin reuptake inhibitor (SSRI) medications for mood and anxiety disorders on at least an occasional basis.⁶

CONDUCT AND SUBSTANCE USE DISORDERS

Conduct or Oppositional-Defiant Disorder, characterized by a pattern of behavior violating social rules or the rights of others, occur among 6-16% of boys and 2-9% of girls.²¹ Substance use disorders occur among 8% of boys and 6% of girls 12-17 years old.¹⁷ Although conduct and substance use disorders generally are not diagnosed until middle childhood or adolescence, there is increasing evidence of developmental trajectories linking these disorders with earlier childhood problems: depression and anxiety disorders, parental conduct and addictive disorders, and family conflict and alienation.¹⁵ Pediatricians report that they rarely diagnose or treat conduct or substance use disorders.⁶

AUTISM AND AUTISM-SPECTRUM DISORDERS AND SCHIZOPHRENIA

Autistic Spectrum Disorders (ASDs) include Autistic Disorder, Pervasive Developmental Disorder (PDD), and Asperger's Syndrome. These problems can be extremely severe, usually manifest early in a child's life, and result in difficulties with learning and social interaction. Prevalence estimates are 0.1% for autism and 0.2-0.4% for autism-spectrum disorders,²² and childhood schizophrenia has an estimated prevalence of 0.01%.²³ Pediatricians report rarely diagnosing or treating these severe disorders.⁶

CHILDHOOD BEHAVIORAL HEALTH PROBLEMS

(CONTINUED)

POSTTRAUMATIC STRESS

Posttraumatic stress results from a variety of situations, including child abuse and neglect. Child neglect and abuse are widespread with over 3.5 million reports filed with protective service agencies in 2004; about 872,000 were confirmed cases of abuse and neglect (11.9 children per thousand).²⁴ More than 60% of those victimized were neglected, 18% were physically abused, 10% sexually abused and another 7% were emotionally maltreated.²⁵ Approximately 79% of perpetrators were parents with parents' unmarried partners and relatives accounting for another 11%.²⁶ There is substantial evidence that such maltreatment, as well as witnessing domestic violence, may precipitate Posttraumatic Stress Disorder (PTSD) or Posttraumatic Stress Signs and Symptoms (PTSS) in children, especially when victims experience complex trauma (repeated and chronic exposure). Such experiences may affect not only brain development, but attachment, social and emotional development, later alcohol and drug use, depression, and anger/aggression.^{27,28,29} Eighty-nine percent of pediatricians reported making a child protective report at some time during their years in practice;³⁰ as many as 43% considered making a report based on suspected abuse or neglect and decided not to do so, despite being mandated reporters.³¹

UNADDRESSED LEARNING DISABILITIES

Learning disabilities, including reading, writing, math and/or other aspects of learning that affect school performance are common, affecting as many as 10% of children.³² These disorders are thought to be related to neurobiological impairments in such areas as memory, information processing and visual-spatial organization.³³ Early detection and intervention are important since self-esteem, mood, affect, behavior and relationships may be significantly affected by undiagnosed and untreated learning disorders.³⁴ There is evidence that pediatricians detect fewer than 30% of children with learning disabilities³⁵ leaving their developmental needs and the socio-emotional concerns that follow unaddressed.



ADDRESSING BEHAVIORAL HEALTH DISORDERS IN PEDIATRIC PRACTICE

American Academy of Pediatrics policy statements highlight the importance of pediatricians as providers of early identification, prevention, treatment, and referral services for behavioral health problems.^{36,37} Most children have ongoing contact with pediatric medical, dental, or nursing care (including in school clinics), and most parents trust health care providers to provide anticipatory or remedial guidance.³⁸ Treatment and prevention of behavioral health problems in the context of pediatric health care may be less stigmatizing than treatment by behavioral health specialists.⁶ Pediatric primary care thus offers an opportunity for timely identification and effective prevention or early treatment of behavioral health problems.³⁹

CHALLENGES IN DETECTION AND TREATMENT OF BEHAVIORAL HEALTH PROBLEMS IN PEDIATRIC PRIMARY CARE

Identification: Screening and Assessment

In most cases, the child health provider is the first and most continuous formal contact within the health care system, serving as a link to other services for families with children. They are in a position of responsibility for assessing and managing behavioral health disorders, particularly those presenting with or exacerbating acute or chronic medical illness (e.g., gastrointestinal, sleep, or pain problems).⁴⁰ Unexplained medical symptoms are common in pediatrics and often are symptomatic of underlying psychiatric disorders.⁴¹ Most pediatricians report that they need to identify and manage behavioral health disorders to some extent. Nearly 90% report using structured guidelines to diagnose childhood behavioral health disorders.⁴²

Screening is one approach to the identification of behavioral health problems, and pediatric primary care providers have a number of practical resources to assist them. Clinical practice guides and tool kits include the AAP's *Classification of Child and Adolescent Mental Diagnoses in Primary Care*⁴³ and *Bright Futures in Practice: Mental Health*.⁴⁴ Validated brief screening measures (e.g., the Pediatric Symptom Checklist)⁴⁵ and global screening

Despite the availability of validated screening measures, private practice pediatricians consistently report that they do not routinely use formal screening instruments to assess for behavioral health disorders.

measures (e.g., the Brief Infant Toddler Social/Emotional Assessment, BITSEA)⁴⁶ have also been developed for pediatric identification of behavioral health problems in primary care settings.

Despite the availability of validated screening measures, private practice pediatricians consistently report that they do not routinely use formal screening instruments to assess for behavioral health disorders.⁴⁷ Rather, they are more likely to rely upon their own observations or on concerns disclosed by parents. Although the Medicaid insurance program mandates screening for mental health problems under the Early Periodic Screening, Diagnosis, and Treatment (EPSDT) guidelines, most states have developed their own EPSDT screening protocols and almost half of these state-generated protocols do not address behavioral health.⁴⁸ Additionally, in a recent survey examining barriers to providing developmental assessments and psychosocial screenings, pediatricians identified the following: inability to obtain separate reimbursement for assessments and well-child care when both are included in a single visit, inadequate levels of reimbursement, lack of referral options for children identified, and lack of training on behavioral health disorders and treatments.⁴⁷

Failure to detect problems is widespread

Without some systematic form of monitoring or surveillance, pediatric health care providers are likely to fail to detect behavioral health problems. For instance, studies conducted in the 1980s and 1990s concluded that pediatric health care providers did not detect a range of children's behavioral health disorders, particularly for children between the ages of 7 and 11,^{39,49} and failure to detect depression by pediatricians appears to continue to be prevalent.⁵⁰ Both parental reports of problems on instruments such as the Child Behavior Checklist and the Diagnostic Interview Schedule for Children (parent version) as well as ratings by psychologists have been shown to be more sensitive to identifying behavioral health problems than pediatricians' assessments.^{51,52} However, pediatricians with specialized training are more likely to identify behavioral health problems than those without.⁵

Some problematic behaviors fall within normal limits for a child's developmental stage (e.g., tantrums among three year olds). Monitoring, counseling, and anticipatory guidance provided routinely in pediatric well-child care may be sufficient to deal with most concerns about normal development. More severe and persistent behavioral health problems, however, require specialized evaluation and treatment by behavioral health providers. The challenge therefore is to ensure that, dur-

One of the best ways to identify children with behavioral health problems is to ask parents if they have any concerns about their child's social, emotional, or school adjustment.

ing both routine and acute-care visits, pediatric providers: (1) identify behavioral health problems, (2) provide appropriate education or anticipatory guidance for normative problems, (3) provide limited behavioral health treatment for transient or mild disorders, and (4) initiate specialized behavioral health evaluation and treatment for persistent or severe behavioral health problems.

Identification of child behavioral health problems: Providers may miss what parents sense

One of the best ways to identify children with behavioral health problems is to ask parents if they have any concerns about their child's social, emotional, or school adjustment.³⁴ Two studies from the Netherlands, however, found that pediatric primary care providers did not believe that close to half of children and adolescents (43%) and more than half of toddlers (71%) needed further diagnosis, treatment, or referral even though these children's parents had identified clinically significant behavioral health issues on a standardized check list.^{51,52} Were the parents overly concerned or were the pediatric providers missing something? Although each of these possibilities undoubtedly was true in some cases, this study's results suggest that the parents' perspective should be taken very seriously by pediatric providers. Specifically, if a child was identified by a pediatric provider as having behavioral health

problems, the child's parents consistently tended independently to voice concern about the child's behavioral or emotional adjustment. Thus, while parents are not always accurate in their concerns, their apprehensions about potential behavioral health problems deserve attention from pediatric providers as a means of identifying children who may otherwise "fall between the cracks" with undetected problems. The parent's perspective is important because providers cannot directly observe many behavioral problems that are apparent in home, school or other settings outside pediatric care.

Parents' views about children's behavioral health problems may be influenced by a number of factors. A study by Horwitz and colleagues⁵³ suggests that both a child's particular condition and the family context play a significant role in determining when parents will disclose behavioral health concerns to pediatric providers and when providers will intervene with (or refer to mental health specialists for) behavioral health treatment. Eighteen percent of parents of 1-3 year old children in pediatric care thought about speaking with a professional about their children's behavioral health problems, but only 13% actually spoke with a professional, and fewer still (6%) reported receiving services for their child's behavioral health problems.

This study found that thinking about or actually speaking with a pediatric professional about behavioral health problems was more likely for some parents than others. Notably, parents of children with diagnosed developmental problems were more likely than other parents to speak to their pediatric health care provider about a behavioral concern. Actually obtaining services for behavioral health problems was most likely if parents were concerned about a child's language development and physical health problems. This is consistent with the possibility that parents may tend to feel that there is less stigma associated with developmental or physical problems than behavioral health problems. Concern about family conflict was related to obtaining services for behavioral health problems, suggesting that parents may be more willing to get help if they view the entire family as in need rather than just a particular child.

Consequently, it is important for pediatric providers to be attentive to the possible adverse influence of family conflict and related stressors (such as divorce) on children's behavioral health. Studies have demonstrated that children's levels of depression and anxiety increase in the aftermath of divorce, and moreover that children whose families had been highly conflictual prior to the divorce also tended to show increases in antisocial behavior after the divorce.⁵⁴

ADDRESSING BEHAVIORAL HEALTH ISSUES IN THE CONTEXT OF THE FAMILY

When parents have behavioral health problems their children are at risk for developing behavioral health problems as well. Parental mental illness, alcoholism, substance abuse and domestic violence have negative consequences for children. The most consistent relationships across numerous studies are between maternal depression and children's problems with anxiety and depression,⁵⁵ and between parental substance abuse and children's problems with conduct and substance abuse disorders.⁵⁶ Sensitivity to parental behavioral health problems enables pediatric providers to assist parents with support, education, and referrals that can reduce caregiver stress and address behavioral health problems that their children may be experiencing, without leading parents to feel blame or shame resulting from the stigma related to mental health disorders. Anxiety or embarrassment may keep parents from discussing "non-medical" problems with their own health care provider, and they may be even more hesitant to contact a behavioral health specialist. Therefore, the pediatrician is in a unique position to assist families with obtaining behavioral health services.

The most common approach to primary care management of pediatric behavioral health problems is prescribing medications.

WHAT INTERVENTIONS DO PEDIATRICIANS USE?

Medication

The most common approach to primary care management of pediatric behavioral health problems is prescribing medications. Pediatric primary care providers in three large health care systems increased their prescribing of psychotropic medications by 2- to 3-fold from 1987-1996, with the largest increases occurring after 1991.⁵⁷ In 1996, 6% of children 19 or younger received psychotropic medications, primarily stimulants for treatment of ADHD (methylphenidate and, increasingly, amphetamines) and either tricyclic or SSRI antidepressants.⁵⁷

Prescriptions of alpha-agonists (i.e., clonidine; typically in combination with stimulants) and “mood stabilizer” anticonvulsants (typically to manage mania or “acting out”) also increased. Lithium and neuroleptics were prescribed for severe mental illness, as were benzodiazepenes (e.g., alprazolam) for anxiety, and hypnotics (e.g., hydroxyzine) for sleep problems. Prescribing these medications varied according to age, gender, race/ethnicity and insurance status. In general, medication tended to be more common for older children, males, and those insured by Medicaid.⁵⁷

Pediatricians are prescribing psychotropic medications for young children with complex severe behavioral health conditions, ranging from ADHD to depression, severe emotional disturbance, and posttraumatic disorders associated with parental psychiatric or substance use disorders, child abuse, or out-of-home placement.⁵⁸ The literature lacks studies establishing long-term safety in the use of psychotropic medications for children.⁵⁹ Pediatricians, however, are more likely to prescribe for patients with ADHD whom they think of as their own and can therefore monitor for adverse consequences, and medication is not the first line treatment option for patients with newly diagnosed conditions.⁶¹

Counseling and other interventions

A recent study⁶ reported that the majority (96%) of the 47 pediatricians they interviewed utilized non-medication interventions in their practices such as counseling for teens with anxiety or depression (51%), education about ADHD (48%), parenting/child management (34%) and behavior modification (29%). The authors note that “(t)he pediatricians were reluctant to describe their interventions as therapy, but many of the examples given or observed involved reflective listening, problem solving, contracting, repeated contact after traumatic events, and cognitive reframing” (p.604). It was also common for the providers to extend the time of office visits when

addressing a behavioral health issue and some even designated specific times of the day for behavioral health-related appointments.

A review of the literature addressing primary care interventions for adolescent depression only yielded four studies, but their results all showed the positive benefits of brief, psychosocial intervention from a member of the primary care team.⁶⁰ Depressed adolescents who were randomly assigned to practiced-based interventions were compared to control groups of depressed adolescents receiving usual care. Therapy and care management interventions resulted in fewer depressive symptoms at follow up in all four studies. This was true regardless of whether or not the adolescents used medications.

In a national survey of pediatric primary care providers, each of whom reported on their practices with patients aged 4-15, pediatricians reported counseling patients expressing physical symptoms (e.g., sleep problems, bed-wetting) but less often counseling those with anxiety, attention, depression, or conduct problems.⁶¹ Counseling was more likely when the visit was focused on a parent-reported newly identified severe behavioral health problem, on longer duration visits (e.g., well-child visits versus briefer illness-related visits), and if family functioning was impaired. Counseling thus appeared to be used for some

purposes that were similar to those for which medication is used (e.g., newer and more severe psychosocial problems). Counseling was less often used than medication or referrals for behavior management or mood/anxiety treatment. This study found that factors related to pediatric visits, such as whether or not the visit was for a psychosocial problem or if the patient was known to the provider, were more predictive in explaining the treatment recommended and delivered than physician and patient characteristics.

Referrals to Behavioral Health Specialists

When children's behavioral health problems are sufficiently persistent or severe to require specialized evaluation and treatment, highly effective psychotropic (medication)⁶² and psychotherapy⁶³ treatments can be provided by behavioral health specialists. Because "very little is known about the process of pediatric primary care providers' management decisions and triage of patients for mental health referral (p. 592),"⁶⁴ Rushton and colleagues initiated a study of 206 primary care practices to explore when and why pediatric primary care providers make referrals for behavioral health care. They concluded that although primary care providers "serve as gatekeepers to determine access to specialty mental health care" (p. 597), few children actually receive appropriate services. Consistent with prior reports, 20% of children ages 4-15 years

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old were identified by providers as having psychosocial problems. One in seven (16%) of these children were referred for specialty behavioral health services at the initial visit. At a six-month follow-up just over half (61%) of the referred children had been seen by a mental health or social work specialist, but rarely by a psychiatrist; fewer than one third (30%) had more than one visit for mental health specialty care. Essentially, only about 2% of children identified as needing behavioral health services actually received them.

Thus, referrals for specialized behavioral evaluation and treatment were the exception rather than the rule, and most of the children referred never reached the behavioral health specialist. As Rushton and colleagues note, the reasons for these gaps are not well understood, and should be further studied.

Those most likely to receive referrals were children who had a family member referred for behavioral health care or who had newly diagnosed severe psychotic, mood/anxiety, or conduct disorder that was identified as a primary concern by the parents. ADHD and somatic complaints were unlikely to receive referrals.⁶¹ Thus, specialty referrals were much less common than primary care management of behavioral health problems, and seem to be based on both the severity of the child's

and family's emotional and conduct problems and the willingness of pediatric providers to manage the treatment of ADHD or somatic problems.

Even when specialized behavioral health services are recommended by a pediatric provider, the child often does not actually receive the services for a variety of reasons.^{6,64} Issues that contribute to access-related difficulties are considered below.

A critical barrier is the shortage of pediatric specialty mental health providers and of pediatric psychopharmacologists.¹⁰ The scarcity of child behavioral health specialists means that the demand for their services quickly outstrips their capacity to accept referrals from primary pediatric providers. As a result, pediatric providers and parents often face lengthy wait times for behavioral health specialty services or an absence of any behavioral health specialist for their child.⁶⁵ Inadequate reimbursement for mental health treatment and the chronic under-funding of the child mental health care system also make it difficult for pediatric providers to secure referrals for children with behavioral health problems.⁶

BEHAVIORAL HEALTH SERVICES IN PEDIATRIC PRIMARY CARE

In addition to systemic problems of availability and access, practical problems with child care and transportation may interfere with parents' abilities to get their child to the behavioral health specialist.⁶⁶ Parents also appear to be less willing or able to follow through and get their children to recommended mental health services if the services or providers are not the parents' own preference for services.⁶⁷ Therefore, making access to specialized child behavioral health services convenient for and acceptable to parents might contribute to enhanced follow-through with pediatric referrals.



RESOURCES AND MODELS FOR ADDRESSING BEHAVIORAL HEALTH IN PRIMARY CARE SETTINGS

There are several practice resources available to providers, as well as model programs that address the intersection of behavioral health and pediatric primary care. Samples of these are summarized below, including *Bright Futures*, the embedded specialist model, streamlined direct access, and co-location.

BRIGHT FUTURES IN PRACTICE: A GUIDE FROM THE AAP

In order to address the need for education and training on children's behavioral health issues, the American Academy of Pediatrics (AAP) created a module in the *Bright Futures* practice guide series that focused on child and family mental health needs within the pediatric practice setting. *Bright Futures in Practice: Mental Health*⁶⁸ is a guide for pediatric provider education that was developed by the Department of Health and Human Services (the Health Resources and Services Administration, HRSA; and the Maternal Child Health Bureau, MCHB) in collaboration with the Georgetown University National Center for Education in Maternal and Child Health. *Bright Futures in Practice: Mental Health* Volume 1 provides chapters on the major developmental periods in childhood, each of which addresses several important areas:

- health supervision questions the professional can use to discuss key issues with parents;
- psychological milestones for that developmental stage;
- tips for prevention, including signs of problems and steps to mitigate or prevent them;
- practical strategies for office practice and for building community partnerships;
- a developmental checklist that can be used for screening and anticipatory guidance;
- key topics and tools for families and professionals to address each topic.

In order to address the need for education and training on children's behavioral health issues, the American Academy of Pediatrics (AAP) created a module in the Bright Futures practice guide series that focused on child and family mental health needs within the pediatric practice setting.

Volume 1 continues with chapters on specific disorders covered in the guidebooks to psychiatric diagnosis: the *Classification of Child and Adolescent Mental Diagnoses in Primary Care: Diagnostic and Statistical Manual for Primary Care* (DSM-PC), and the *Diagnostic and Statistical Manual for Mental Disorders, 4th Edition, Text Revision* (DSM-IV-TR). Each chapter on specific child and adolescent mental disorders covers several general areas:

- early identification (clinical observation, screening, anticipatory guidance);
- pediatric practice treatment (interventions to enhance functioning and self-esteem in the context of self, family, friends, and school and community);
- office-based and community resources;
- referrals for specialized mental health services.

Volume 2, the Toolkit, provides practical tools for professionals (e.g., mental health intake forms, screening measures, clinical observation tools, guides for parent education, tools for coordination with other health care and school professionals) and for parents and families (e.g., fact sheets on normal developmental changes and challenges, specific mental health problems, parenting and self-care strategies). The Toolkit is organized by developmental stage, and covers “bridge” topics such

as child maltreatment, domestic violence, substance abuse prevention, anger management, individualized education plans, safe child care, and parental depression.

Bright Futures in Practice: Mental Health combines remarkable breadth, evidence-based rigor and practicality into a single practice resource. The challenge facing providers is how to use the vast amount of information within pediatric practice. Training, education, and delivery models are needed that teach and support the sustained use of the guidelines and tools. Several approaches for doing so are described below.

THE EMBEDDED SPECIALIST MODEL

One promising approach to translating the massive amounts of information provided by *Bright Futures in Practice: Mental Health* into pediatric practice is the **embedded specialist** model. In this model, a new or existing staff person in the pediatric practice is trained to serve as the behavioral health liaison, or care manager, providing educational resources and referral to other services. In this way behavioral health care is treated as an intrinsic part of pediatric health care.

This model has been shown to be effective in adult primary care. The Depression in Primary Care Three Component Model (TCM) was developed for primary care treatment of adult depression.⁶⁹ The three com-

ponents are: (1) preparing the primary care office staff and clinician(s) to identify and treat depression by providing targeted education; (2) care management by a designated staff member who tracks the treatment provided and progress achieved by each patient in order to ensure that all necessary services are delivered in a timely and effective manner with positive outcomes; and (3) mental health interface, which involves a psychiatrist providing consultation to the pediatric provider(s) and facilitating referral to mental health specialists in challenging cases.

Care management by a designated staff member is critical to the TCM model. The TCM defines a new position that ordinarily is not found in medical practices, the care manager. The care manager coordinates all services provided, both within and outside of the practice, so that treatment is efficient and organized. The care manager also helps the patient and providers track progress and treatment modifications so the health care provider receives information on patients treated within the practice and on those under the care of a behavioral health specialist.

Another example of an embedded specialist model comes from the area of developmental pediatrics. The *Healthy Steps* program was designed for children from birth to 3 years old in order to put into practice the “stan-

dards and principles of *Bright Futures* and the American Academy of Pediatrics Health Supervision Guidelines.”⁷⁰ *Healthy Steps* embeds developmental specialists in pediatric practices to provide anticipatory guidance and specialized developmental services for children. A randomized trial demonstrated that *Healthy Steps* was associated with positive changes in parent discipline practices, perceptions of child behavior, adherence to regimens for preventive and well child care, and willingness to seek help for their own depressive symptoms, as well as with improvements in pediatric providers’ patient-centeredness, timeliness, and efficiency of care.⁷¹

After 30 months of using the *Healthy Steps* approach, pediatric practitioners “were more likely to strongly agree that they gave support to families and to be very satisfied with the ability of their clinical staff to meet the developmental needs of children”.⁷² In this study of more than 100 pediatricians, *Healthy Steps* showed increased use of developmental services despite practice barriers. Of particular importance, pediatricians who serve many low-income children reported satisfaction levels similar to those reported by pediatricians with middle- and high-income patients, despite having previously reported lower satisfaction levels. Although *Healthy Steps* does not directly address mental health issues, the success of this embedded specialist model

for developmental issues suggests that it may serve as a model for embedding mental health specialists within practices.

A third example, the *Family to Family Network*, which targets child and parent behavioral health problems associated with chronic pediatric diabetes, sickle cell anemia, cystic fibrosis, or asthma, also suggests that embedding specialists in practices results in improved socio-emotional outcomes. Child life specialists and lay mentors worked as coordinated teams to provide home and telephone contact with children and mothers. In a randomized trial, the psychosocial adjustment of participating children and mothers improved, while those receiving usual pediatric care reported poorer functioning in a 15-month study.⁷³ This model focuses on children with primarily chronic medical illnesses, but did provide effective psychosocial intervention.

STREAMLINED DIRECT ACCESS

The **streamlined direct access** model is best exemplified in *Targeted Child Psychiatry Services* (TCPS), a Massachusetts program to provide pediatric health care professionals with immediate working-hours access to phone consultation from child psychiatrists or pediatric psychiatric nurses. Non-emergency psychiatric evaluations and short-term (1-4 sessions) psychosocial treatment by social

workers (including brief individual and family therapy, parent management training, and cognitive behavioral therapy) and pharmacological treatment also are provided if the pediatrician and the TCPS consultant determine them to be warranted.⁷⁴ TCPS has shortened waiting times for appointments with child behavioral health specialists. It also has allowed primary care providers to handle almost half of the patients they identify as having behavioral health disorders without referral to a child psychiatrist, easing the demand on the overburdened child psychiatry system.⁷⁵

The streamlined direct access model is best exemplified in Targeted Child Psychiatry Services (TCPS), a Massachusetts program to provide pediatric health care professionals with immediate working-hours access to phone consultation from child psychiatrists or pediatric psychiatric nurses.

CO-LOCATION OF BEHAVIORAL HEALTH SERVICES

The **co-location or collaborative care** model has been shown to enhance treatment of depression and anxiety disorders in adult primary medical care.^{76,77} Variations have been developed for pediatric practice settings. The *Cambridge Health Alliance* co-located a clinical social worker in a pediatric clinic in order to provide immediate onsite assessment and treatment to families whose scores on the routinely completed Pediatric Symptom Checklist⁴⁵ indicated a risk of behavioral health disorders. Preliminary results include a reduction of wait-time for child psychiatry services from an average of one year to one month.⁷⁸ Clinical patient- or family-level outcomes were not reported.

A different approach to co-location involves providing a specific brief evidence-based psychosocial treatment onsite to children identified in pediatric settings as having defined behavioral health problems. Weersing⁷⁹ has initiated a study of onsite versus offsite (i.e., at a separate mental health clinic) cognitive-behavioral therapy (CBT: 4

sessions plus up to 4 booster sessions) from a mental health professional for youths 11-17 identified through routine pediatric screening using validated screening tools and confirmed by a research nurse as meeting criteria for a depressive disorder. Although outcome data are not yet available, this study is an important example of the research needed to develop an evidence base that supports both the specific mental health interventions and the service delivery models. Clinical and cost-effectiveness data are being collected to determine if co-location provides added benefit over and above the provision of CBT in a traditional separate mental health clinic setting.

Two recent demonstration projects in Connecticut have highlighted both major benefits and challenges of co-locating behavioral health services in primary care settings. One project was implemented in an inner-city hospital clinic and the other in a large primary care practice in a small city. Both settings served a large number of children whose health and mental health care were paid for by the state's Medicaid program through a managed care provider. Descriptions, summaries of major findings, and examples of outcomes for the programs are described in the Connecticut Context section of this paper.

The co-location or collaborative care model has been shown to enhance treatment of depression and anxiety disorders in adult primary medical care.

SUMMARY AND RECOMMENDATIONS

Behavioral health problems among children and families often result in excess health care utilization and, if untreated, lead to increasingly serious psychosocial problems. The pediatric primary care system is potentially the most effective setting for addressing children's and families' behavioral health needs when child health providers are supported in doing the following:

- acquiring the knowledge necessary to recognize behavioral health disorders and distinguish these from developmentally and culturally normative behaviors
- appropriately administering and interpreting findings from validated screening/assessment protocols in order to detect behavioral health disorders
- achieving sufficient continuity of care to know the child and caregiver(s) well enough to observe the child, to get information from the caregiver(s), and to develop a coordinated plan of care with the caregiver(s)
- listening carefully to caregivers' concerns and responding with empirically-based, culturally and developmentally sensitive, and meaningful information about ways to prevent or manage children's behavioral health problems and to enhance children's behavioral health
- learning to apply brief treatments for children's behavioral health problems, including the ability to recognize when primary care-based treatment for behavioral health disorders is insufficient or ineffective
- recognizing when and to whom to refer children and/or families for specialized behavioral health assessment and treatment, and having efficient mechanisms for communicating with, and receiving evaluations from, child behavioral health specialists
- integrating — both clinically and administratively — behavioral health screening, detection, education/prevention, brief treatment, and referral and follow-up within their ongoing pediatric care practices
- incorporating protocols from the Behavioral Health Partnership into their daily practice to ensure that their patients insured under HUSKY receive needed behavioral health services

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Policy and systems change are necessary to move from the present situation where detection and treatment of children's behavioral health problems are widely endorsed, but infrequently accomplished, toward a situation in which pediatric primary care providers are supported in making behavioral health services a routine expectation and a consistent practice component.

In this process, three key areas require attention:

■ Professional development to include:

- training of pediatric primary care providers and their practice staff in screening, brief intervention, referral, and ongoing involvement with patients under the care of behavioral health specialists
- increased emphasis on behavioral health issues in pediatric and family medicine residency training
- development of a learning track for social workers and psychologists that prepares them for a future working in pediatric primary care alongside clinical and office staff

■ Primary care practice redesign to include:

- implementation of routine screening for behavioral health problems as part of well-child services

- seamless access to behavioral health specialty services, including medication consultation from child psychiatrists and psychiatric advanced practice nurses
- commitment to care coordination activities to support referral and linkage to needed services
- co-location of behavioral health services into primary care sites

■ Regulatory and financing reform to ensure:

- payment for behavioral health screening, counseling, and care coordination services rendered in primary care settings
- payment for extensive evaluation, short term management, and care coordination services performed by behavioral health clinicians working in, or in close collaboration with, primary care sites
- improved reimbursement for children's behavioral health services in general

This is a tall order for Connecticut state agencies, medical and behavioral health providers, and behavioral health and medical educational institutions. Yet initiatives underway in Connecticut show promise that each of the above is committed to addressing improved integration of behavioral health services with primary care and are willing to collaborate in the design and implementation of a new system for meeting the behavioral health needs of children.

THE CONNECTICUT CONTEXT

Connecticut is well-positioned to build the capacity for pediatric primary care practitioners to be responsive to behavioral health concerns as evidenced by initiatives at the state and practice levels. Increasing attention is being paid at the highest levels of state government to children's behavioral health and to enhancing the capacity of the mental health system to meet children's needs. Policy leaders and advocates are looking to the pediatric and primary care health system to play a major role in screening, early intervention, brief treatment, and referral when needed. In addition to state-level initiatives, two practice demonstration projects have framed planning for a more comprehensive statewide strategy to address children's behavioral health needs within primary care practice.



Statewide Initiatives

The Mental Health Cabinet

The 2004 Connecticut Mental Health Cabinet report, produced under the leadership of Lt. Governor Kevin Sullivan, recognized the need for consultation and support from mental health providers to pediatric primary care practices — including onsite and remote assistance for screening, brief intervention, and pharmacotherapy. The report acknowledged that such services are reimbursable under Medicaid, but in addition recommends funding to design and implement training curricula for medical and nursing students, residents, and practicing providers. One of eight recommendations advanced by the Cabinet for the 2006 legislative session resulted in \$250,000 funding for two pilot initiatives to enhance the ability of primary care providers to improve their practices with regard to diagnosis, referral and treatment for those with mental illness.

The Behavioral Health Partnership

Connecticut has restructured how care is organized and delivered to children and families enrolled in the state's Medicaid Plan (HUSKY). As of January 2006 behavioral health services are managed by Value/Options, serving as an Administrative Service Organization under contract with both DSS and DCF through the Behavioral Health Partnership. DSS is designating a subset of behavioral health providers as Enhanced Care Clinics if they meet criteria outlined under the Partnership. These criteria address timely access to services and coordination of services with primary care providers. Clinics awarded enhanced care status will receive 25% payment over prevailing reimbursement rates.

Connecticut's Transformation to Recovery-Oriented Care: Mental Health, Partnerships, and a Quality Life in the Community for All

In response to the President's New Freedom Commission on Mental Health,⁸⁰ 14 state agencies have received federal funding to develop a collaborative plan to improve the quality and effectiveness of Connecticut's mental health system. Led by the Department of Mental Health and Addiction Services, this multi-million dollar project will address: (1) attention to mental health services at a level equal to physical health services; (2) commitment to services that promote resiliency and recovery; (3) racial, ethnic and gender disparities in mental health care; (4) early screening and identification; (5) evidence-based mental health care; and (6) use of technology to increase access to care and information. The challenge for Connecticut is integrating children's mental health needs into a system that has traditionally served adults and focused on recovery rather than prevention and early intervention. Six work groups have developed recommendations for moving the Transformation process forward, and most had representation from children's services, including parents. It is expected that this process will ensure a broad range of programmatic and policy changes that will improve access to and the quality of children's mental health services in Connecticut.

Co-location models: The Connecticut Children's Medical Center Pediatric Clinic and Wheeler Clinic

Connecticut Children's Medical Center:

In 2004, the Children's Fund of Connecticut and Anthem Blue Care Family Plan funded the Connecticut Children's Medical Center (CCMC) to develop, implement, and evaluate the *Behavioral Health Integration Project*.⁸¹ Bi-lingual psychiatric social workers in the primary care clinic provided consultation, assessment, brief treatment, and referral to social workers and child psychiatrists. The clinic is located in inner-city Hartford. The 16 primary care providers annually serve approximately 13,000 children, the majority of whom are of Latino/a origin and speak Spanish as their primary language. Staff from the Institute of Living, a neighboring community-based mental health agency, supervised the social workers and provided psychiatric consultation for clinic primary care providers. Primary care providers received in-service training on using the pediatric symptom checklist to identify children for referral to the onsite behavioral health staff. However, they generally relied on clinical interviewing to determine the need for referrals. Results from the CCMC project are outlined here:

Findings from the Behavioral Health Integration Program at the Connecticut Children's Medical Center in Hartford, CT (February 2003 to April 2004)

- More than 150 children were referred to the program, and 86 of those referred had one or more encounters with the onsite behavioral health clinician.
- The majority of referred children were more advanced in their behavioral health needs than had been anticipated in planning the program.
- The most common reasons for referring a child to the behavioral health clinician included one or more of the following: oppositional behaviors (37%) aggressive behaviors (32%), school problems (30%), depression (29%), and/or hyperactivity (21%).
- Median waiting time for an appointment with the behavioral health clinician was 14 days compared to at least two months for an appointment at a community mental health agency.
- Almost half of the children seen by the clinic-based behavioral health clinician met their treatment objectives with either completion of a short course of counseling onsite (on average 2 to 3 visits), successful linkage to another mental health provider for more long term care, or triage back to the primary care provider.

Wheeler Clinic - Pediatric Associates:

Wheeler Clinic, a nonprofit behavioral health organization in central Connecticut, in collaboration with Pediatric Associates, a large community-based, private primary care practice located in Bristol, Connecticut, initiated a collaborative co-location project (The Pediatric Behavioral Health Program) in March of 2001.⁸² Pediatric Associates serves 8,500 children and adolescents, 35% of whom are insured by Medicaid. The practice is privately owned and is staffed by six pediatricians and six nurses. Anthem Blue Cross and Blue Shield funded the program's pilot phase. The Connecticut Health Foundation provided additional funding for model development and documentation. The service has continued, but has received no external financial support other than insurance reimbursement since 2002.

The Pediatric Behavioral Health Program uses a part-time psychologist co-located within the primary care setting to respond to referrals from the pediatricians and nurses as well as parents. A broad array of behavioral health services is provided, including prevention, consultation, early intervention, brief treatment, triage and referral, episodic intervention, and case management.

The most frequent clinical activities for 96 children served from January 2004 to June 2005 included:

- physician consultation via chart note (100%)
- referral for further evaluation (63%)
- referral for further behavioral health services (60%)
- provision of a brief course of treatment (58%)
- school consultation (54%)
- provision of psycho-educational resources (48%)
- referral to community programs (26%)
- standardized behavioral health assessment (24%)

A time utilization study completed in 2002 indicated that, on average, for every hour of face-to-face contact, the behavioral health clinician performed an additional half hour of case management activity. The most common clinical case management activities included:

- medical record review (100%)
- telephone contact: family (74%)
- telephone contact: community agency (66%)
- telephone contact: school personnel (54%)
- face-to-face consultation with pediatrician (41%)
- school record review (28%)
- community record review (19%)
- indirect assessment activities (14%)
- written communication to school or community agency (7%)

Attention Deficit, Adjustment, Anxiety, Dysthymic, and Disruptive Behavior disorders accounted for 97% of the primary diagnoses for children served in the Pediatric Behavioral Health Program. An outcome evaluation study examined the experiences of children, parents, and providers with the program. Data from January 2004 to June 2005 supported the effectiveness of this collaborative co-location model in terms of improved access to services, positive clinical outcomes, and practice and systems advances.

In addition to shorter waiting times for appointments, the Wheeler Clinic demonstration also resulted in 93% of families following through with behavioral health treatment services to which the psychologist referred them. Problem severity and adaptive functioning measured with the Ohio scales⁸³ at the start of intervention and at follow-up showed improved child outcomes. In a follow-up survey parents also reported missing fewer days of work as a result of their children's participation in the project. Practice staff reported that as a result of the program, they spent less time during visits discussing behavioral health problems and received fewer phone calls about children's behavioral health issues. They also reported that the program helped them to identify behavioral health problems more quickly, improved the overall quality of patient care by better meeting patient needs within the practice, and facilitated referrals to community resources.⁸²

How Collaborative Co-location Addresses Behavioral Health Needs

The following case examples from the **Wheeler Clinic** Pediatric Behavioral Health Program illustrate ways in which co-location of behavioral health and primary care creates unique opportunities to meet patient needs in a way not possible in a system relying on offsite services.

Collaborative co-location of services facilitates early intervention: The mother of a ten year old girl described her daughter as highly competent in all major life spheres outside of the home, but relating poorly to family members. Although the girl was reported to be extremely well-behaved in school, she had become increasingly aggressive and defiant with her parents, particularly her mother. Due to concerns that her child's misbehavior would result in permanently damaged family relationships and that it would soon extend to settings beyond the home, the mother sought a behavioral health consultation. During two intervention sessions the mother was helped to understand her own contribution to her daughter's heightened stress level and inappropriate home behavior. Effective disciplinary practices were identified, adjustments were made to the girl's extracurricular schedule, and strategies were adopted to promote the verbalization of feelings. In a follow-up telephone consultation, the mother cited specific examples reflecting marked behavioral improvements.

Collaborative co-location of services allows for collaborative assessment and treatment: At the suggestion of the doctor, the mother of an eleven year old boy with a neurological disorder sought a behavioral health consult prior to a medical appointment in which treatment planning was to occur. The mother expressed mixed feelings about the physician's recommendation to begin medication. She hoped that her son would learn to control his physical tics and guttural utterances without medicine. After voicing her concerns and analyzing the positive and negative consequences of psychopharmacological treatment with the therapist, the mother decided to pursue a medication trial. Within a few months the boy was again happily socializing with peers and would soon be taking his medication with him on a first overnight camp experience.

Collaborative co-location of services promotes efficient and effective diagnosis, triage and referral: A pediatrician referred a six year old boy to the behavioral health specialist for an evaluation of a possible Attention Deficit Hyperactivity Disorder (ADHD) due to the child's presenting symptoms of impulsivity and over-activity. A thorough clinical assessment, comprised of detailed developmental and family history-taking, observations of child and parent-child interactions, telephone interviews with school district personnel (classroom teacher, school psychologist, and principal), and consultation with the family's newly secured outpatient therapist, disclosed a complex, severe, and chronic clinical profile which included, but extended beyond the ADHD diagnostic indicators. These data revealed that the boy was engaging in a repetitive and persistent pattern of aggressive, oppositional, and destructive behavior. He had physically injured his mother and siblings and had displayed sexually explicit as well as physically intimidating and aggressive behavior in school. The school behaviors had resulted in a referral to the Department of Children and Families (DCF), retention in kindergarten, multiple suspensions, and removal from the school bus. The pediatric behavioral health specialist spearheaded a coordinated effort involving the mother, school personnel, an outpatient therapist, and a DCF social worker and supervisor. As a result, DCF did not close the child's case as previously planned, but rather, a child protection team immediately convened to discuss the child's needs. Following this meeting, the behavioral health specialist secured a psychiatric assessment and intensive in-home treatment services and explored additional therapeutic resources.



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