

Pediatric Primary Care and Integrated Behavioral Health

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INTRODUCTION

Pediatric primary care has been undergoing a significant transformation into the patient-centered medical home (PCMH) model of healthcare delivery. This transformation presents an opportunity to integrate services that help optimize children's health. Chief among these is the integration of behavioral health.

Approximately 18% of adults and 13–20% of children are reported to have a mental health disorder.^{1,2} This leads to adverse health behaviors, contributing to an increase in chronic medical conditions.³ Many of these behaviors are established in childhood, emphasizing the importance of addressing mental health needs early.⁴ Identification of behavioral problems early, prior to the development of more severe mental disease, is a preventive strategy utilized in pediatrics. Children and adolescents are seen regularly for routine exams, providing opportunity for the primary care provider to address both medical and behavioral health concerns.⁵ Emerging research suggests that integration of mental and behavioral health into pediatric primary care settings improves outcomes.^{3,4} Understanding differences between adult and pediatric behavioral health care has been important, with a primary difference being one of prevention as opposed to a focus on diagnosis. Younger children, in particular, may have social-emotional challenges that do not rise to the level of diagnosable mental illness. Emphasis is placed on recognition of the patient within the context of family, school and community. Strengthening and supporting patient and family engagement, improving communication and coordination among the primary care medical home, patient, family, schools, mental health and addiction disorder providers has been emphasized.

Pediatricians are often the first professionals to recognize behavioral or mental health problems in children. However, given time constraints in the primary care office and pediatricians' lack of mental health training, they often feel unable to effectively intervene or adequately diagnose and treat identified patients.⁶ As part of moving to team-based care in pediatric medical homes, many primary care offices

now incorporate behavioral health professionals into their practices. At Hasbro Children's Hospital (HCH) Pediatric Primary Care, a licensed Clinical Social Worker (CSW) collaborates with the pediatric providers to provide behavioral and mental health support. Often this is when the provider or screening tool has identified a behavioral health concern. The CSW meets to assess the child and family to identify needs, provide brief interventions or, when needed, refer for appropriate treatment. The goal is to identify mental and behavioral concerns early, provide support for the patient and family, identify strengths and promote a healthy trajectory.

A series of Integrated Behavioral Health (IBH) Learning Collaboratives were undertaken as part of PCMH-Kids, a statewide multi-payer multi-practice pediatric care transformation initiative. The collaboratives supported the integration of behavioral health into the pediatric primary care setting. Topics included improving attention-deficit hyperactivity disorder (ADHD) care, improving screening and referral for post-partum depression screening, and screening and referral for adolescent substance use. Each collaborative engaged 7–11 practices (pediatric and family medicine) and lasted 12 months. Each was structured with an initial half-day learning session which included didactic learning and team-based creation of practice-specific aims' statements. This was followed with each practice working with a facilitator and content experts to achieve their aims through a series of improvement cycles. Practices shared their learning and data at quarterly progress meetings. Each collaborative wrapped up with a final half-day report, with storyboards and robust discussion of lessons learned. Below, we describe our experience with the IBH Learning Collaboratives at HCH Pediatric Primary Care, a large hospital-based teaching site serving about 10,000 children, 90% of whom receive Medicaid.

ATTENTION-DEFICIT/HYPERACTIVITY DISORDER-YEAR ONE

ADHD is one of the most common behavioral health disorders in children, occurring in about 8% of children ages 12–17 years.⁷ It is often associated with one or more comorbidities including learning disabilities, conduct disorder, anxiety, depression, and speech problems.⁷ The American Academy of Pediatrics (AAP) Clinical Practice Guidelines

offers clear recommendations for diagnosis, evaluation and treatment of ADHD.⁸ Most pediatricians are familiar with these guidelines; however, only about half report routine follow-up visits 3-4 times a year for children with ADHD who are taking medications.⁹

At HCH Primary Care, we sought to increase adherence to the 2–3 month recommended follow-up visits. Three barriers were identified: patient and parental lack of knowledge regarding prescribing and using controlled substances, limited access to appointments, and impaired communication with the school, resulting in delays in diagnosing, treating and managing patients with ADHD. To address these barriers, an “ADHD Care Plan Agreement” packet was created. The packet was provided to all families diagnosed with ADHD who were currently on or starting medication. The Care Plan Agreement outlines the prescription of controlled substances and required follow-up care and is signed by the patient and family. Also included in the packet is a release of information for the school, appointment and treatment log, Vanderbilt Follow-Up Parent/Teacher Scales, a template letter to request an IEP, school medication authorization forms, a list of RI resources for families of children with ADHD and a tip sheet for handling daily problems at home. Additionally, all patients with ADHD requiring follow-up appointments were notified. Increased access to appointments was made available, particularly Saturday mornings. Encounter templates were updated to improve documentation and data collection and to provide an educational tool for trainees. Following these interventions, scheduled follow-up visits within 2–3 months increased from 60 to 92%. Additionally, communication with schools has improved and parental feedback has been extremely positive.

POST-PARTUM DEPRESSION SCREENING

The AAP mental health task force recommends that pediatricians identify mothers suffering from PPD in the perinatal period, using a standardized screening tool at 1-, 2-, 4- and 6-month well-child visits.¹⁰ Although there has been an increase in screening rates over the past 10 years, pediatricians are still only screening mothers less than 50% of the time.¹¹ Given the high prevalence of PPD, 15% in the general population and as high as 20% in low socioeconomic status populations, screening mothers systematically for PPD and connecting them to services is needed.^{12,13} Additionally, there is a robust body of literature confirming that maternal depression negatively affects infant growth and development. Early identification and treatment are critical to ensure optimal development.¹⁴ Pediatricians are in a unique position to identify mothers suffering from PPD and alter the course of their disease, as well as improve their child’s physical and emotional wellbeing.

At HCH Primary Care, we implemented routine screening utilizing the Edinburgh Postpartum Depression Scale – an

easy, short, well-validated tool. The screen is self-administered and results are available to the providers who review the results, discuss them with the mother and refer to services if needed. Through chart review, we found that we were initially screening only 55% of mothers at least twice during the first 6 months postpartum. With the support of the IBH Learning Collaborative, we implemented a series of changes in our workflow, training all of our providers on the importance of screening for PPD and utilizing an online system that delivers and scores the screen. By the end of the first year, screening rates increased to 82%. Additionally, we found that approximately 20% of mothers we serve suffer from PPD. Of these, about a third require mental health support, either through in-office social work consultation or a referral to outpatient or partial day program behavioral health services.

ADOLESCENT SUBSTANCE USE

According to the Monitoring the Future Study National Survey Results in 2017, 62% of high school seniors and 23% of 8th graders have consumed alcohol.¹⁵ Marijuana use continues to rise, with 37% of seniors reporting use within the past year.¹⁵ Substance use disorders often co-occur with mental illness in both adults and adolescents.¹ Drug and alcohol usage in adolescents is particularly concerning due to the lack of development of the adolescent brain.¹⁶ For these reasons, it is imperative to talk with adolescents about the use and misuse of drugs and alcohol.

The current learning collaborative has chosen to use the Screening, Brief Intervention, and Referral to Treatment (SBIRT) model to address substance use. SBIRT is an evidence-based practice beginning with universal screening to identify users, the brief negotiated interview which uses motivational interviewing to discuss substance use and misuse, followed by referral for individuals with substance use disorders. At HCH Primary Care, we instituted screening for all adolescents (ages 12–18 years) at well child visits using the CRAFFT, a short, validated screening tool. The CRAFFT is given to teens on a confidential electronic tablet as part of the “check-in” process, allowing the provider to view results before entering the room. Chart review in June 2018 showed a screening rate of 50% for adolescent well child visits. To increase screening rates, we focused on provider awareness. With increased provider education and prioritizing the CRAFFT, we were able to increase screening rates to 70% by September 2018. With increased momentum, we are working towards training all providers in SBIRT, particularly motivational interviewing. Thus far, we have held 2 hour-long conferences to capture faculty and residents, in addition to offering on-line training modules. As an integral part of our team, our CSW provides intervention and follow-up of positive screens as needed. While we have only had a small number of positive screens (1–4%), our group has found the

impact of negative screens to be extremely important. The negative screens serve to open the door to an interactive discussion about drugs and alcohol, allowing for both the child to ask questions and for the physician to positively reinforce the patient's motivations for abstaining. Moving forward, we hope to continue to increase our rates of screening and by year-end, have all providers trained in SBIRT.

The work with the IBH learning collaborative provided impetus to expand other behavioral and mental health initiatives. In 2017 we initiated universal depression screening for all 12- to 18- year-olds at well visits. We utilize confidential on-line screening at time of visit using the PHQ9-Modified for Adolescents Tool. Within 6 months, 86.9% of adolescents were screened at the time of a well visit with 20% screening positive for depression, thoughts of suicide, or history of suicide attempt. All patients with positive screens had further evaluation.

Our future goals include expansion of behavioral health care for the many identified mothers, children, and adolescents within primary care. Ideally, patients who screen positive would benefit from assessments for safety, together with brief interventions and referral for ongoing care within the medical home. We have had great success with this through the support of a licensed CSW embedded in our clinic. The mental health burden, however, remains high and calls for expansion of these services. Other innovative approaches we are piloting to address this need include having psychiatry residents in our clinic. Senior residents trained in psychiatry, pediatrics and child psychiatry spend time each week in primary care to provide support in diagnosis and brief interventions. This model has the added benefit of educating our pediatric residents with resident peers supported by a child psychiatry attending. With continued effort to increase access to CSW and child psychiatry providers, in addition to the IBH Collaborative support in evidence-based improvement initiatives, we hope to strengthen and expand the integration of behavioral health into our primary care office to provide optimal and comprehensive care for our patients and their families.

References

1. Hedden SL. *Behavioral health trends in the United States: results from the 2014 National Survey on Drug Use and Health*. Substance Abuse and Mental Health Services Administration, Department of Health & Human Services; 2015.
2. Perou R, Bitsko RH, Blumberg SJ, et al. Mental health surveillance among children—United States, 2005–2011. *MMWR Surveill Summ*. 2013;62(Suppl 2):1-35.
3. Gerrity M. Evolving models of behavioral health integration: Evidence update 2010–2015. In: Millbank Memorial Fund. Retrieved from <https://www.millbank.org/wp-content/uploads/2016/05/Evolving-Models-of-BHI.pdf>; 2016.
4. Asarnow JR, Rozenman M, Wiblin J, Zeltzer L. Integrated medical-behavioral care compared with usual primary care for child and adolescent behavioral health: a meta-analysis. *JAMA pediatrics*. 2015;169(10):929-937.
5. Ader J, Stille CJ, Keller D, Miller BF, Barr MS, Perrin JM. The medical home and integrated behavioral health: advancing the policy agenda. *Pediatrics*. 2015:peds. 2014-3941.
6. Martini R, Hilt R, Marx L, et al. Best principles for integration of child psychiatry into the pediatric health home. *Approved by the American Academy of Child and Adolescent Psychiatry Council*. 2012.
7. Larson K, Russ SA, Kahn RS, Halfon N. Patterns of comorbidity, functioning, and service use for US children with ADHD, 2007. *Pediatrics*. 2011:peds. 2010-0165.
8. ATTENTION-DEFICIT SO. ADHD: clinical practice guideline for the diagnosis, evaluation, and treatment of attention-deficit/hyperactivity disorder in children and adolescents. *Pediatrics*. 2011:peds. 2011-2654.
9. Rushton JL, Fant KE, Clark SJ. Use of practice guidelines in the primary care of children with attention-deficit/hyperactivity disorder. *Pediatrics*. 2004;114(1):e23-e28.
10. Earls MF, Child CoPAo, Health F. Clinical report—Incorporating recognition and management of perinatal and postpartum depression into pediatric practice. *Pediatrics*. 2010:peds. 2010-2348.
11. Kerker BD, Storer-Isser A, Stein RE, et al. Identifying maternal depression in pediatric primary care: changes over a decade. *Journal of developmental and behavioral pediatrics: JDBP*. 2016;37(2):113.
12. Guintivano J, Manuck T, Meltzer-Brody S. Predictors of Postpartum Depression: A Comprehensive Review of the Last Decade of Evidence. *Clinical obstetrics and gynecology*. 2018;61(3):591-603.
13. Pooler J, Perry DF, Ghandour RM. Prevalence and risk factors for postpartum depressive symptoms among women enrolled in WIC. *Maternal and child health journal*. 2013;17(10):1969-1980.
14. Hoffman C, Dunn DM, Njoroge WF. Impact of postpartum mental illness upon infant development. *Current psychiatry reports*. 2017;19(12):100.
15. Johnston LD, Miech RA, O'Malley PM, Bachman JG, Schulenberg JE, Patrick ME. Monitoring the Future national survey results on drug use, 1975-2017: Overview, key findings on adolescent drug use. 2018.
16. Nora D, Volkow M. Principles of Adolescent Substance Use Disorder Treatment: A Research-Based Guide. *PNAS*. 2004;101:8174-8179.

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