Models of Consultation in Primary Care Settings

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Discussions about consultation models in pediatric psychology have historically focused on inpatient consultation-liaison work with children who have acute and chronic illnesses. Yet, less than 20% of pediatric patients have chronic health conditions, and most children will be seen by a medical provider at least annually in an *outpatient*—either primary care or specialty—clinic (Stancin & Perrin, 2014). Moreover, developmental, behavioral, and emotional problems in youth are common in primary care settings (as many as 25% have diagnosable conditions that cause functional impairment), but most do not receive effective specialty mental health services (Stancin & Perrin, 2014). As a result, outpatient primary care settings provide a unique opportunity for effective consultation, assessment, and intervention in a medical context that reaches beyond traditional inpatient-based models.

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A child born in the United States is expected to see a pediatric primary care provider (PPCP)[1] a minimum of 27 times by the time they turn 18, including annual visits after their third birthday (AAP, 2017). This affords an opportunity for longitudinal contacts that can promote and facilitate trust and open communication between the patient, family, and PPCP, and the medical provider can assess the child's development, health status, mood, and functioning over time. Unfortunately, there are many barriers that can impede the effectiveness of the PPCP's interventions. There are conflicting priorities in pediatric primary care, including pressure to increase visit volumes, expanding anticipatory guidance and developmental screening recommendations, and increasing demands for documentation. Many children will present to their pediatric visits with a psychosocial or behavioral health concern, yet inadequate preparation of PPCPs to address developmental and behavioral concerns of children is a well-known problem (McMillan et al., 2018).

Momentum for a central presence for behavioral health providers in primary care settings was advanced by recent changes in health-care

[1]We use "PPCP" to refer to a medical practitioner assuming the role of pediatric primary care provider, coordinating all the health care that the patient receives. In the United States, PPCPs are usually pediatricians, family medicine physicians, advance practice nurses, nurse practitioners, or physician assistants.

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legislation, especially the passage of the Affordable Care Act (Patient Protection and Affordable Care Act, 2010) which recognized the importance of addressing behavioral health conditions for improving health outcomes of the US population and reducing overall costs. Healthcare redesign efforts have shifted the culture of [pediatric] health care to focus more on quality and health outcomes, emphasizing contributions of integrated, team-based care to facilitate real-time communication and an interdependence on complementing expertise in the treatment of primary care patients (Tynan, 2016).

Research has shown that at least half of adult mental health problems are present by the age of 14 years (Kessler et al., 2007), and there is often a gap of more than 10 years between onset of symptoms and treatment—especially for children, as most individuals did not have contact with mental health resources until early adulthood (Wang, Berglund, Olfson, & Kessler, 2004). This combination of systemic, logistical, and training issues creates an environment in which psychosocial concerns may be missed or ineffectively addressed during primary care visits, and thus, many of these issues will progress into significant mental health problems later in children's lives.

Consider the following case scenario:

An 11-year-old girl presents to her PPCP for routine well-child care and is accompanied by her father. During her annual visit, the PPCP notes that, since her last visit, her weight and body mass index (BMI) have increased significantly, and she is now within the range for pediatric obesity. It is also revealed that her parents divorced within the year, and they share custody of her and her younger brother. The PPCP is concerned that her weight for height growth curve is rising sharply and notes that her mood and affect appear flattened. The father appears irritable and overwhelmed, and the PPCP is unsure how best to make recommendations about the girl's weight and inquire about her mood.

Imagine the trajectories for the child above in each of the following scenarios. In one (and most typical) scenario, the PPCP would focus primarily on the medical issues presented in the visit and offer an outside community referral to the father for psychosocial or mental health services. In a second scenario, the family and PPCP has access to a behavioral health team member who can provide a curbside consult or even work directly with the family during the well-child visit to begin a therapeutic intervention. There is evidence that a family is twice as likely to initiate treatment and seven times more likely to complete treatment when services are provided onsite, as in the second scenario (Kolko et al., 2014).

Until very recently, conversations around integrated primary care have focused on the "why"—descriptions of the need and evidence that behavioral health practitioners in integrated primary care may be an effective way to address child behavioral health issues (Stancin & Perrin, 2014). "How" to best address issues by way of possible models to effectively integrate behavioral health specialists have also emerged (Stancin, 2016). In this chapter, we suggest that it may be time to shift conversations to "what" works—to determine what evidence-based or informed models can be best adapted to primary care settings and evaluated. Which developmental, behavioral, and social screening methods, assessment strategies, and behavioral interventions can be effective in integrated primary care? We will touch on the *why*, *how*, *and what* in this chapter as we explore models and current evidence in the field of pediatric integrated primary care.

Models of Application

More than half of primary care visits have primary or underlying psychosocial origins, which have compelled health-care systems and policymakers to consider ways to address these needs (Collins, Hewson, Munger, & Wade, 2010). Integrated primary care can be traced as far back as the 1970s to a health system in New York state and has steadily gained momentum since the early 1990s, especially in family medicine and military settings (Blount, 2015). There have been many advances since those first days of integrated practice, and the current models of integrated

primary care exist along a continuum, from *coordinated care* to *fully integrated* practice (Stancin, Perrin, & Ramirez, 2009).

In practices relying on *coordinated* or consultation models of care, PPCPs seek consultation by mental health professionals and may share patients. Often, these two sets of professionals are in separate locations, and communication occurs via written, telephone, or electronic correspondence, usually following a visit with the patient/family. An example of coordinated care is the Massachusetts Child Psychiatry Access Project (MCPAP), which provides telephone hotline, staffed by a care coordinator who accepts the referral and assigns to either the dedicated child psychiatrist or psychotherapist (Collins et al., 2010; Sarvet et al., 2010). Education and resource support are also available. Practices without immediate or ready access to behavioral health providers (whether because of a lack of providers in a region or other factors) may find opportunities to improve care using coordinated model resources.

New videoconferencing/telehealth approaches have emerged as an effective means of delivering coordinated and collaborative care. Telehealth, or the practice of delivering health care via digital (e.g., telephone, Internet) mediums, is an approach that has been utilized in health care in some form for over 50 years but has more recently been formalized to include the direct delivery of medical, preventive, and public health interventions delivered remotely (Doarn et al., 2014). Within a primary care framework, the Extension for Community Healthcare Outcomes (ECHO) model uses a hub and spoke model, where a centralized training center ("superhub") aids in the creation of a regional hub made up of interprofessional team that provides remote simultaneous consultation and support to satellite sites ("spokes") around a particular issue or problem (Hager et al., 2018). This model has demonstrated a variety of valuable outcomes, especially in rural and underserved areas; some examples of positive outcomes include increases in specialized treatment around opioid use disorder and decreased emergency use utilization (Hager et al., 2018). Fleischman et al. (2016) demonstrated that when PPCPs in one rural setting added a telehealth visit with an obesity specialist, patient BMIs were reduced and maintained. Importantly, however, insurance providers may not reimburse for remote care delivery or time spent consulting with remote interprofessional team members, which may disincentivize institutions and practitioners with high revenue and clinical productivity expectations. However, payor networks may find that telehealth may have significant benefits once bundled payments and value-based care are the industry standard (Hager et al., 2018).

Colocated care practices involve closer collaboration among PPCPs and behavioral health providers and imply that professionals share a physical space. Often, the mental health professional occupies an office in the pediatric practice or close to it. There may be shared electronic health records and/or office staff. Key advantages of colocated models include familiarity of the setting and easier communication between providers. In addition, colocated models may also offer greater control over scheduling and therefore may be attractive if fiscal predictability is a priority to practices.

Finally, behavioral health integration is care resulting from a practice team of primary care and mental health professionals working together to care for the whole child in the context of the family, school, and community (Stancin & Perrin, 2014). *Integrated* care implies communication about treatment planning, and progress occurs in real time and face to face, often during the actual clinic visit (Stancin & Perrin, 2014). This allows for collaborative case conceptualization and treatment planning gears to turn quickly. Integrated care assumes that for any problem, patients have come to the right place—that there is no wrong door. Care may address mental health, developmental disorders, health behaviors that contribute to medical conditions, life stressors and crises, stress-related physical symptoms, or ineffective patterns of health-care utilization.

The MetroHealth Model is a mature pediatric integrated care practice within an academic medical center. Pediatric psychologists and psychology trainees (interns and postdoctoral fellows)

are present to staff all primary care, specialty care, and urgent care clinic sessions and work collaboratively with attending pediatricians and pediatric resident physicians. Psychology staff provide "warm handoffs" (a transfer of care between the PPCP and psychologist that occurs in front of the patient and family), same-day and follow-up brief, problem-focused assessments and treatments, and risk/suicide assessments. The focus of attention varies greatly (e.g., developmental screening follow-up, ADHD, adjustment to medical conditions, family trauma, depression, sleep problems, self-harming behaviors, to name a few). Psychotropic medication consultation with a child and adolescent psychiatrist or developmental-behavioral pediatrician may be requested after a psychology provider and PPCP evaluate a child (Marwaha et al., 2017). Utilization data over a 6-month period indicated that 71% of psychology patient interactions resulted in billable encounters (Pereira, Wallace, Brown, & Stancin, 2016).

While not yet adapted for use with a pediatric population, a variation of the integrated care model has come be known as the "collaborative care model." The most well-known collaborative care model in adult primary care is the Improving Mood-Promoting Access to Collaborative Treatment (IMPACT) model (Collins et al., 2010; Unützer et al., 2001). The IMPACT model was borne out of a need to address depression in older patients with chronic medical problems who were not following through on psychiatry referrals and were not receiving mental health care. The IMPACT model uses a stepped approach to augment standard primary care with an embedded behavioral health-care manager who assists with screening, tracking, and guiding treatment toward an antidepressant medication and/or psychotherapy. An essential element to this model is availability of a psychiatrist to provide caseload consultation to the care manager who coordinates services with patients and the PCP (Hegel et al., 2002; Unützer et al., 2001).

Building on the collaborative care framework, Richardson et al. (2014) implemented the Reaching Out to Adolescents in Distress (ROAD) intervention to address depression in adolescent patients. Teenagers from pediatric primary care practices were telephone-screened for depression using the PHQ-2. Eligible participants who met depression criteria after further assessment were randomized to intervention or control groups. For the intervention condition, the adolescents and their families were empowered to engage in ongoing choices around treatment (e.g., medication alone, cognitive-behavioral therapy (CBT) alone, medication/CBT combination). Notably, all intervention participants' depression scores were monitored, and changes in intervention condition or dose were recommended based on these dynamic scores. In the control group, patients received care as usual along with a supplemental letter recommending treatment and summarizing the results of the telephone depression interview. Results indicated that the collaborative care intervention led to significant decreases in depression symptoms over 12 months compared to the control group (Richardson et al., 2014).

Strategies and Challenges in Implementation

Regardless of which integration model is selected for a primary care practice, appropriate and seamless introduction and application of a new care model is not always intuitive. Medical practices and hospital systems vary in their culture of integration and communication between medical and mental health professions. Irrespective of the setting, there are components that are crucial to integrated care and issues that can complicate implementation.

SAMHSA underscores four components that are critical to successful integration: leadership and organizational commitment, team development, team process, and team outcome (SAMHSA, 2014). Additionally, the Interprofessional Education Collaborative (IPEC, 2016) promotes four core values that are necessary in interprofessional collaboration: values/ethics for interprofessional practice, roles/responsibilities, interprofessional communication, and teams/teamwork. Each competency has several sub-competencies, and these competen-

cies are grounded in family- and patient-centered care that is community- and population-oriented. In pediatric integrated primary care practice, each of these competencies has very real implications. Integrated care teams need to discuss common *values/ethics* considerations that may impact the team practices, e.g., how confidentiality will be maintained, how team members ensure they are practicing within the scope of their expertise, and how both provider and patient issues of diversity are understood and respected. Similarly, understanding team *roles and responsibilities* is critical. Patients and families deserve to understand who is contributing to their care and in what way. Additionally, team members should be clear with each other who is responsible for what aspects of care and capitalize on the wide scope of skills and competencies that are present in the team. The *communication* competency highlights the need to strive for clear, universal language and content, both inside of the team and when discussing plans with patients and families. Finally, *teams/teamwork* involves reviewing the team dynamics and outcomes to understand how the team effectiveness may be improved (IPEC, 2016).

Consider how these four competencies are fundamental to an effective warm handoff: a clear presentation of the potential problem (communication, values/ethics, and roles), a plan for who will follow up with further assessment and/or treatment (roles, communication, and teamwork), and how the plan is established and shared with the patient and family (values/ethics, roles, communication, and teamwork). Additionally, having a consistent message for the patients and families is also a very important factor. If a parent arrives to a pediatric clinic visit and then is offered an opportunity to speak to a mental health professional, the style, tone, and content of how that is communicated will likely determine the receptivity ("buy-in") of the families to this service. Financial issues may also present an obstacle to the delivery of mental health services. Health-care systems may charge separate fees on top of the cost of the visit per professional seen that day. If this is not communicated to the family, or the health-care system has not developed solutions to this potential barrier, families may be surprised to discover they have unexpected consultation bills added to their visit and decline further behavioral health services.

Integrated primary care models aim to identify, triage, and treat (when appropriate) behavioral health issues. There is no universal gold standard for effective integrated pediatric primary care. For example, coordinated care and colocated models may be preferred in settings where resources are limited, especially when considering space and time/clinical flow factors. Settings in which the organizational and/or clinic cultures promote and facilitate collaboration between medical and behavioral health practitioners [and trainees] are more likely to have success. Yet, other settings may have systemic and logistical barriers that require creativity in implementing an integrated care model. To address these issues, a number of important considerations should be considered. How easy it is for interprofessional team members to readily access one another? Do medical and behavioral health providers practice alongside each other to help facilitate impromptu conversation and "curbside" consultations? If not, what other modes of expeditious access are available: encrypted texting, telemedicine, email, and regularly scheduled interdisciplinary team meetings? Developing a business model for a sustainable integrated care program in the current health-care economic climate continues to be a challenge. However, the creation of new collaborative care codes for behavioral health integration has been developed that may support some of the currently unreimbursed time spent participating in non-face-to-face patient care, such as in treatment planning collaboration, psychiatric consultation, and care coordination (Centers for Medicare and Medicaid Services, 2018).

The "Who" in Integrated Primary Care

As highlighted above, integrated care models vary widely and are predictably impacted by economic, population, and health-care system

variables. One important factor to consider is the type(s) of professional that will be providing the behavioral health arm of the team-based care. There is a movement in the medical culture for providers to practice at the "top" of their licenses, with extenders (e.g., advanced practice nurses and physician assistants) increasing patient access to standard care and allowing physicians to focus on more complex cases with higher reimbursement potential (Moawad, 2017). Similarly, in any given pediatric setting, there may be a variety of behavioral health professionals (e.g., masters-level counselors and social workers), child development specialists (e.g., child life), and health-care educators and providers (e.g., nurse clinicians, dieticians, health educators). However, the unique skill sets offered by these various disciplines are not always clear to our interprofessional colleagues and system administrators. Without a clear understanding of the benefits related to the areas of unique expertise of pediatric psychologists vs. nondoctoral providers—as well as workforce availability—practices may opt for less-expensive behavioral health providers. Indeed, most studies examining outcomes of collaborative care models have described practices that rely on care managers or other nondoctoral providers.

As a rapidly evolving subspecialty, pediatric psychologists bring unique skills of benefit to the primary care setting. In addition to providing evidence-based training in screening, assessment, and interventions, most pediatric psychologists have specialized training in the program development, evidence-based protocols, quality improvement, health promotion, and adherence. They often have training to provide supervision and mentorship to interprofessional trainees, including medical residents and other behavioral health trainees (Stancin & Perrin, 2014). Integrated primary care practices may utilize psychologists in leadership/supervision roles including the provision of support for more complex patient presentations. It is essential that psychologists convey the nature of our specialized training and skills so they are afforded the opportunity to practice at the highest levels of their licenses.

Clinical Practice Essentials

As we shift from theoretical models to actual patient presentations in pediatric integrated primary care, consider that pediatric and adult primary care practices have distinct foci. While adult integrated behavioral health care is responsive and reactive to morbidity, pediatric mental and medical health systems tend to focus somewhat more on early intervention and prevention of chronic health problems and disease (Stancin & Perrin, 2014). As a result, the types of problems encountered in pediatric primary care can range from normalizing milestones and basic behavior principles used to navigate typical child development (e.g., sleep and toilet training, managing tantrums) to addressing specific stressors (e.g., bullying, learning problems, phobias), to exploring emerging health issues with behavioral origins (e.g., obesity, medication adherence), to responding to acute risk and pathology (e.g., suicide assessments, emerging psychosis).

Psychologists can play a critical role in assessing and managing problems in pediatric primary care and in other more specialized pediatric clinics and emergency room settings. PPCPs in primary care serve, in part, as medical gatekeepers and decision-makers: they regularly screen and assess medical/developmental concerns, determine acuity, and facilitate admission to inpatient medical settings as needed. In an integrated primary and specialty care setting, psychologists can serve a similar role, by screening for and assessing general psychosocial and more urgent mental health concerns (e.g., suicidal ideation, homicidal ideation, and self-harm). Understandably, in order to function within time and space constraints, efficiency in identifying and triaging behavioral health needs in the clinical setting is crucial.

Mental health issues account for more than 20% of visits in primary care (Cherry & Schappert, 2014), and recent studies suggest that nearly half patients in pediatric specialty clinics screen positive for some mental health concern (Shemesh et al., 2016). Data from the MCPAP suggests that PPCPs generally accessed available

behavioral health consultation for clarity on diagnoses, community resources, medication consultations, school issues, and mental health crises (Sarvet et al., 2010). These data also highlighted the range of behavioral health presentations, including ADHD, common internalizing and externalizing disorders, developmental disorders, trauma, eating disorders, substance use, and psychotic disorders (Sarvet et al., 2010). However, this list does not include other consultations common in our own pediatric clinic, including sleep issues, barriers to adherence, toilet training, and feeding problems, among others. Specialized training in applied child development, developmental psychopathology, and the interconnectedness of physical and mental health is essential for effective practice and endemic to the training of most pediatric psychologists.

One of the challenges of integrated care is that it does not fit traditional mental health models used in training programs, and the setting, time constraints, and logistical issues often require adaptations of evidence-based interventions. Several studies have demonstrated effectiveness of adapted interventions to address behavior problems, obesity, depression, and transdiagnostic presentations in pediatric primary care (Asarnow, Rozenman, Wiblin, & Zeltzer, 2015; Fleischman et al., 2016; Richardson et al., 2014; Weersing, Rozenman, Maher-Bridge, & Campo, 2012).

Suicide

One particularly urgent issue in pediatric primary care is suicidality. Suicide currently represents the second leading cause of death in 10- to 24-year-olds in the United States (WISQARS, 2017). In 2017, approximately 1 in 6 American high school students reported that they had seriously considered attempting suicide in the past year, and 1 in 13 students reported that they had attempted suicide in the past year (Kann et al., 2018). In a traditional, nonintegrated outpatient pediatric setting, patients who endorse suicidal ideation in the pediatric visit are generally sent urgently to an emergency room, where they can wait many hours for a mental health assessment, and many will be discharged home with a list of referrals for mental health services (Doshi, Boudreaux, Wang, Pelletier, & Camargo, 2005). This process is not only inefficient and costly for families and managed care providers, but it can also be a stressful (Allen, Carpenter, Sheets, Miccio, & Ross, 2003) and even traumatic experience for a young person to spend hours in a fast-paced emergency department setting, watching other psychiatric or critically ill or injured patients.

In a fully integrated care setting, PPCPs concerned about self-harm and suicidality can access a mental health professional for an immediate risk assessment and determination of acuity and need (e.g., engage in safety planning and discharge with appropriate supervision or facilitate admission to an inpatient psychiatric setting). One integrated care program (MetroHealth) demonstrated that 90% of suicide/risk assessments presenting in the primary care clinic resulted in successful de-escalation of the crisis and a safety plan outcome that did not require further emergency room visits or inpatient psychiatric hospitalizations (Pereira et al., 2016).

When an inpatient psychiatric hospitalization is deemed necessary, the outpatient primary care team often needs to communicate the results of the assessment to a psychiatric emergency room team, who then conduct their own assessment, and communicate results to an inpatient psychiatric team. Upon discharge, the inpatient team needs to communicate patient outcomes and coordinate psychological follow-up with the outpatient team. This last step is particularly important given that patients are at higher risk for suicide in the week immediately following discharge from an inpatient psychiatric hospitalization. Pediatric psychologists integrated in primary care clinics can help to coordinate the difficult transition from inpatient psychiatric hospitalization to outpatient treatment by working closely with the inpatient medical team.

Acute and Chronic Health Issues

Psychologists in integrated care settings also collaborate closely with *inpatient medical* teams to manage issues of adjustment and treatment adherence for children with chronic and acute medical conditions. Children with chronic medical conditions who face inpatient stays are discharged for regular outpatient follow-up with PPCPs and specialty care providers. Integrated care psychologists can help families translate the treatment recommendations of the inpatient medical team into practically implemented strategies, as well as to help the outpatient medical providers understand patient and family barriers and potential resistance to implementing medical advice and recommendations.

Young people managing chronic illness often struggle to accept and adjust to symptoms, like chronic pain, special diet, and restriction of daily activities. Many young people with chronic medical conditions report feeling hopeless and isolated from peers, while others suffer anxiety surrounding frequent medical procedures and surgeries. Mental health professionals in outpatient pediatric primary settings are in a unique position to work to promote positive social, emotional, and behavioral adjustment for patients with chronic medical conditions.

Workforce Development

While health systems increasingly move toward integrated models of care, mental health training still largely focuses on traditional models of care. In graduate school, psychology trainees typically learn to provide traditional outpatient therapy (i.e., weekly 50-min individual sessions with a therapist) in an outpatient training clinic. Trainees wishing to specialize in pediatric psychology may choose to seek hospital-based training opportunities to develop expertise in a medical subspecialty (e.g., oncology, neurology, endocrinology) or to gain experience working in other treatment settings (e.g., inpatient consultation-liaison, psychiatric inpatient units). To date, few programs offer such training opportunities in an integrated care, leaving the mental health workforce underprepared to meet the ever-growing demand for integration. In fact, until relatively recently, there were few generally agreed-upon training competencies around which to build a specialized training program. In 2012, the American Psychological Association (APA) initiated a call for the creation of an Interorganizational Work Group to identify competencies for psychology practice in primary care (McDaniel et al., 2014) which were then further defined and tailored for pediatric populations (Hoffses et al., 2016). These competencies are important not only to standardize training and best practices in primary care but also serve to clearly identify and differentiate the role of psychologists from that of other behavioral health professionals in primary care. Furthermore, they capture the multifaceted role of integrated primary care psychologists, including application and adaptation of evidence-based clinical interventions, consuming and producing research on integrated primary care, building and navigating interprofessional relationships, training the next generation of integrated primary care psychologists, and serving as leaders and advocates in the community.

Many pediatric primary care settings incorporate interprofessional learners and supervisors at varying levels. The inherent complexities in creating integrated care teams (complex and interwoven medical and behavioral health issues, variety of training and practice cultures, and economic and financial pressures of productivity and reimbursement) underscore that training across developmental levels of learners and practitioners is critical to maintaining and cultivating a responsive and effective, sustainable integrated primary care practice.

Special Considerations

Facilitating Psychiatry Access

The national shortage of child psychiatrists has created a high demand for pediatric psychopharmacological intervention. Marwaha et al. (2017)

piloted a model in which predoctoral psychology interns embedded in pediatric primary care clinics acted as access point to activate a formal psychopharmacological medication consultation with the collaborating pediatric psychiatrist. This model aided in (1) extending pediatric psychiatry service in the hospital, (2) preventing a bottleneck of referrals to outpatient psychiatry for simple medication requests, and (3) enhancing the psychopharmacological knowledge of psychology and pediatric residents (Marwaha et al., 2017).

Culturally Informed Care

Studies suggest that African American, Hispanic, Asian American, and Native American families are less likely than White counterparts to utilize traditional specialty mental health services, even after accounting for symptom severity and other socioeconomic factors related to service utilization (Alegría et al., 2002). However, integrating mental health services into primary care has been shown to eliminate gaps between Hispanic (Bridges et al., 2014), African American (Ayalon, Areán, Linkins, Lynch, & Estes, 2007), and White adults' access to and utilization of specialized mental health services. Spielvogle, McCarty, and Richardson (2017) demonstrated effectiveness in addressing anxiety and depression in pediatric primary care, with the highest gains among Hispanic populations. Furthermore, disparities known to exist in the diagnosis and treatment of developmental disabilities (e.g., autism spectrum disorders) among minority children (Zablotsky, Black, & Blumberg, 2017) may be addressed through culturally sensitive developmental screening facilitated by psychologists integrated into pediatric clinics.

Resources

Pediatric psychology integration services should be tailored to fit the features of the setting so services may be organized differently for urban and rural communities. In urban communities with many mental health agencies and services to choose from, an integrated care model may focus on briefly addressing immediate patient concerns and helping them to connect to long-term services in the community. However, rural communities may have fewer community-based mental health services, so options to refer to outside agencies may be limited. Mental health providers in the primary care setting may represent one of the only mental health resources in a given area, and patients often have to travel long distances for specialty mental health services. Thus, in rural communities, same-day consultation in the primary care context may be preferable and more accessible for families than traditional weekly outpatient therapy appointments. It may also be beneficial to consider ways of extending mental health resources in a given area by using alternate models of service provision, like telehealth psychology, or by using trainees as extenders to increase the number of available behavioral health providers in the area. Families in urban communities face their own barriers to care (e.g., reliance on public transport). Thus, in both settings, mental health providers may need to be flexible with attendance policies to allow patients to easily reconnect with services even after missed appointments.

Concluding Remarks

As we close, consider this account of a fictional pediatric psychologist embedded in an integrated primary care clinic and how it highlights the variety of consultative roles required in a single day:

Dr. Gomes starts her day by meeting with hospital administrators to discuss reimbursement rates and current billable services for psychologists integrated into primary care. Later that morning, the pediatric endocrine specialist requests a consultation for an 8-year-old boy with diabetes who was recently discharged to the outpatient endocrine team after a prolonged inpatient admission for diabetic ketoacidosis. Dr. Gomes helps the endocrine team to assess barriers to adherence and helps to increase the fami-

ly's motivation to engage in effective care for the boy's diabetes. Dr. Gomes then observes a predoctoral psychology resident responds to a consult request in primary care for a 6-year-old patient presenting with tantrums, language delays, and difficulty with sleep onset. After the visit, Dr. Gomes discusses the management of the case with the psychology and pediatric resident, including how the communication of the consult was handled with the family and if the team felt that they were effective in meeting the needs of this patient and family. During lunch, Dr. Gomes delivers the weekly Pediatric Department Grand Rounds about the management of adolescent depression in primary care. As she returns to lunch for the afternoon pediatric clinic, Dr. Gomes receives a request for a consult regarding a 17-year-old patient with chronic daily headaches. During the visit, the patient endorses symptoms of hopelessness and anhedonia and makes a "joke" to Dr. Gomes that she would be "better off dead." Upon further assessment, the patient admits to acute suicidal ideation, with a specific plan and access. Dr. Gomes works jointly with the PPCP and the emergency department team to facilitate admission to the inpatient psychiatric unit. To wrap up the day, Dr. Gomes meets with her hospital's PPCPs to discuss how to use available trauma screeners to screen and identify children at risk for trauma in the growing Puerto Rican community moving into the city after the devastation left by Hurricane Maria.

Compared to traditional inpatient-based models of pediatric psychology consultation, integrated primary care affords an opportunity to screen, assess, triage, and intervene across a wide range of physical, developmental, behavioral, academic, mental health and psychosocial issues. With access to children presenting along a continuum of health and functioning, integrated pediatric primary care psychologists are afforded the opportunity to consult within primary care teams, teach and train interprofessional learners, and apply [adapted] evidence-based interventions to prevent and address pathology. Research on "what" developmental, behavioral, and social screening methods, assessment strategies, and behavioral interventions can be best applied to address problems in primary care settings is needed but is emerging.

References

Alegría, M., Canino, G., Ríos, R., Vera, M., Calderón, J., Rusch, D., & Ortega, A. N. (2002). Mental health care for Latinos: Inequalities in use of specialty mental health services among Latinos, African Americans, and non-Latino Whites. *Psychiatric Services, 53*(12), 1547–1555. https://doi.org/10.1176/appi.ps.53.12.1547

Allen, M. H., Carpenter, D., Sheets, J. L., Miccio, S., & Ross, R. (2003). What do consumers say they want and need during a psychiatric emergency? *Journal of Psychiatric Practice, 9*(1), 39–58. https://doi.org/10.1097/00131746-200301000-00005

American Pediatric Association. (2017). Recommendations for preventive pediatric health care [PDF file]. Retrieved from https://www.aap.org/en-us/Documents/periodicity_schedule.pdf

Asarnow, J. R., Rozenman, M., Wiblin, J., & Zeltzer, L. (2015). Integrated medical-behavioral care compared with usual primary care for child and adolescent behavioral health a meta-analysis. *JAMA Pediatrics, 169*(10), 929–937. https://doi.org/10.1001/jamapediatrics.2015.1141

Ayalon, L., Areán, P. A., Linkins, K., Lynch, M., & Estes, C. L. (2007). Integration of mental health services into primary care overcomes ethnic disparities in access to mental health services between black and white elderly. *The American Journal of Geriatric Psychiatry, 15*(10), 906–912. https://doi.org/10.1097/JGP.0b013e318135113e

Blount, A. (2015, April 10). A brief history of the integration of behavioral health in primary care [Web blog post]. Retrieved October 1, 2018 from https://www.cfha.net/blogpost/689173/213334/a-brief-history-of-the-integration-of-behavioral-health-in-primary-care

Bridges, A. J., Andrews, A. R., III, Villalobos, B. T., Pastrana, F. A., Cavell, T. A., & Gomez, D. (2014). Does integrated behavioral health care reduce mental health disparities for Latinos? Initial findings. *Journal of Latina/o Psychology, 2*(1), 37. https://doi.org/10.1037/lat0000009

Centers for Medicare and Medicaid Services. (2018, April 17). Frequently asked questions about billing medicare for behavioral health integration (BHI) services. Retrieved from https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/Downloads/Behavioral-Health-Integration-FAQs.pdf

Cherry, D. K., & Schappert, S. M. (2014). Percentage of mental health-related primary care office visits, by age group-national ambulatory medical care survey, United States, 2010.

Collins, C., Hewson, D. L., Munger, R., & Wade, T. (2010). *Evolving models of behavioral health integration in primary care* (p. 504). New York, NY: Milbank Memorial Fund. https://doi.org/10.1599/EvolvingCare2010

Doarn, C. R., Pruitt, S., Jacobs, J., Harris, Y., Bott, D. M., Riley, W., … Oliver, A. L. (2014). Federal efforts to define and advance telehealth—A work in progress. *Telemedicine and e-Health, 20*(5), 409–418. https://doi.org/10.1089/tmj.2013.0336

Doshi, A., Boudreaux, E. D., Wang, N., Pelletier, A. J., & Camargo, C. A., Jr. (2005). National study of US emergency department visits for attempted suicide and self-inflicted injury, 1997–2001. *Annals of Emergency Medicine, 46*(4), 369–375. https://doi.org/10.1016/j.annemergmed.2005.04.018

Fleischman, A., Hourigan, S. E., Lyon, H. N., Landry, M. G., Reynolds, J., Steltz, S. K., … Ludwig, D. S. (2016). Creating an integrated care model for childhood obesity: A randomized pilot study utilizing telehealth in a community primary care setting. *Clinical Obesity, 6*(6), 380–388. https://doi.org/10.1111/cob.12166

Hager, B., Hasselberg, M., Arzubi, E., Betlinski, J., Duncan, M., Richman, J., & Raney, L. E. (2018). Leveraging behavioral health expertise: Practices and potential of the project ECHO approach to virtually integrating care in underserved areas. *Psychiatric Services, 69*(4), 366–369. https://doi.org/10.1176/appi.ps.201700211

Hegel, M. T., Imming, J., Cyr-Provost, M., Noel, P. H., Arean, P. A., & Unutzer, J. (2002). Role of behavioral health professionals in a collaborative stepped care treatment model for depression in primary care: Project IMPACT. *Families, Systems & Health, 20*(3), 265. https://doi.org/10.1037/h0089475

Hoffses, K. W., Ramirez, L. Y., Berdan, L., Tunick, R., Honaker, S. M., Meadows, T. J., … Stancin, T. (2016). Topical review: Building competency: Professional skills for pediatric psychologists in integrated primary care settings. *Journal of Pediatric Psychology, 41*(10), 1144–1160. https://doi.org/10.1093/jpepsy/jsw066

Interprofessional Education Collaborative. (2016). *Core competencies for interprofessional collaborative practice: 2016 update*. Washington, DC: Interprofessional Education Collaborative.

Kann, L., McManus, T., Harris, W. A., Shanklin, S. L., Flint, K. H., Queen, B., … Lim, C. (2018). Youth risk behavior surveillance—United States, 2017. *MMWR Surveillance Summaries, 67*(8), 1. https://doi.org/10.15585/mmwr.ss6708a1

Kessler, R. C., Amminger, G. P., Aguilar-Gaxiola, S., Alonso, J., Lee, S., & Ustun, T. B. (2007). Age of onset of mental disorders: A review of recent literature. *Current Opinion in Psychiatry, 20*(4), 359. https://doi.org/10.1097/YCO.0b013e32816ebc8c

Kolko, D. J., Campo, J., Kilbourne, A. M., Hart, J., Sakolsky, D., & Wisniewski, S. (2014). Collaborative care outcomes for pediatric behavioral health problems: A cluster randomized trial. *Pediatrics, 133*, e981–e992. https://doi.org/10.1542/peds.2013-2516

Lardieri, M. R., Lasky, G. B., & Raney, L. (2014). *Essential elements of effective integrated primary care and behavioral health teams*. Washington, DC: SAMHSA-HRSA Center for Integrated Health Solutions.

Marwaha, R., Pajek, J. A., Newton, K., Machado, E., Rae, M. W., & Stancin, T. (2017). Psychopharmacology consultation facilitated by integrated psychology residents in a pediatric continuity care clinic: A feasibility study. *Journal of the American Academy of Child & Adolescent Psychiatry, 56*(10), S214–S215. https://doi.org/10.1016/j.jaac.2017.09.183

McDaniel, S. H., Grus, C. L., Cubic, B. A., Hunter, C. L., Kearney, L. K., Schuman, C. C., … Miller, B. F. (2014). Competencies for psychology practice in primary care. *American Psychologist, 69*(4), 409.

McMillan, J. A., Land, M. L., Rodday, A. M., Wills, K., Green, C. M., & Leslie, L. K. (2018). Report of a joint association of pediatric program directors–American board of pediatrics workshop: Preparing future pediatricians for the mental health crisis. *The Journal of Pediatrics, 201*, 285–291. https://doi.org/10.1016/j.jpeds.2018.06.044

Moawad, H. (2017, May 3). Practicing at the top of your license. *MDMag*. Retrieved from https://www.mdmag.com/physicians-money-digest/contributor/heidi-moawad-md/2017/05/practicing-at-the-top-of-your-license

Patient Protection and Affordable Care Act. (2010). Patient protection and affordable care act. *Public Law, 111*(48), 759–762.

Pereira, L., Wallace, J., Brown, W., & Stancin, T. (2016, September). *Behavioral health utilization in an integrated pediatric continuity care clinic*. Poster presented at the annual meeting of the Society for Developmental and Behavioral Pediatrics conference, Savannah, GA.

Richardson, L. P., Ludman, E., McCauley, E., Lindenbaum, J., Larison, C., Zhou, C., … Katon, W. (2014). Collaborative care for adolescents with depression in primary care: A randomized clinical trial. *JAMA, 312*(8), 809–816. https://doi.org/10.1001/jama.2014.9259

Sarvet, B., Gold, J., Bostic, J. Q., Masek, B. J., Prince, J. B., Jeffers-Terry, M., … Straus, J. H. (2010). Improving access to mental health care for children: The Massachusetts Child Psychiatry Access Project. *Pediatrics, 126*, 1191–1200. https://doi.org/10.1542/peds.2009-1340

Shemesh, E., Lewis, B. J., Rubes, M., Ambrose, M. A., Cahill, M. K., Knight, C., … Annunziato, R. A. (2016). Mental health screening outcomes in a pediatric specialty care setting. *The Journal of Pediatrics, 168*, 193–197. https://doi.org/10.1016/j.jpeds.2015.09.046

Spielvogle, H., McCarty, C. A., & Richardson, L. P. (2017). Brief therapy for anxiety and depression in the pediatric primary care setting: Implications and next

steps. *JAMA Pediatrics, 171*(10), 1006–1007. https://doi.org/10.1001/jamapediatrics.2017.2854

Stancin, T. (2016). Commentary: Integrated pediatric primary care: Moving from why to how. *Journal of Pediatric Psychology, 41*(10), 1161–1164. https://doi.org/10.1093/jpepsy/jsw074

Stancin, T., & Perrin, E. C. (2014). Psychologists and pediatricians: Opportunities for collaboration in primary care. *American Psychologist, 69*(4), 332. https://doi.org/10.1037/a0036046

Stancin, T., Perrin, E. C., & Ramirez, L. (2009). Pediatric psychology and primary care. In M. C. Roberts & R. G. Steele (Eds.), *Handbook of pediatric psychology* (pp. 630–646). New York, NY: Guilford Press.

Tynan, W. D. (2016). Commentary: Integrated primary care psychology evolving with the affordable care act. *Journal of Pediatric Psychology, 41*(10), 1165–1167. https://doi.org/10.1093/jpepsy/jsw086

Unützer, J., Katon, W., Williams, J. W., Jr., Callahan, C. M., Harpole, L., Hunkeler, E. M., … Oishi, S. M. (2001). Improving primary care for depression in late life: The design of a multicenter randomized trial. *Medical Care, 39*(8), 785–799. https://doi.org/10.1097/00005650-200108000-00005

Wang, P. S., Berglund, P. A., Olfson, M., & Kessler, R. C. (2004). Delays in initial treatment contact after first onset of a mental disorder. *Health Services Research, 39*(2), 393–416. https://doi.org/10.1111/j.1475-6773.2004.00234.x

Weersing, V. R., Rozenman, M. S., Maher-Bridge, M., & Campo, J. V. (2012). Anxiety, depression, and somatic distress: Developing a transdiagnostic internalizing toolbox for pediatric practice. *Cognitive and Behavioral Practice, 19*(1), 68–82. https://doi.org/10.1016/j.cbpra.2011.06.002

WISQARS. (2017, February 19). WISQARS leading causes of death reports. Retrieved from https://webappa.cdc.gov/sasweb/ncipc/leadcause.html

Zablotsky, B., Black, L. I., & Blumberg, S. J. (2017). Estimated prevalence of children with diagnosed developmental disabilities in the United States, 2014–2016. *NCHS Data Brief*, (291), 1–8.