

# Academic-Community Partnership to Improve Pediatric Mental Health Access: Missouri Child Psychiatry Access Project

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Because of significant shortages in the behavioral health workforce, primary care providers (PCPs) have become the de facto mental health providers to address poor access to mental health care. Child psychiatry access programs (CPAPs) could support PCPs through case consultations. This column describes the innovative Missouri Child Psychiatry Access Project, highlighting the unique enhancements to existing CPAPs and the partnership between community and

academic settings to support behavioral health access in primary care. Using an implementation science approach, the authors applied the RE-AIM (reach, effectiveness, adoption, implementation, maintenance) framework to disseminate replicable steps for other systems; they also discuss future directions for expanding utility and scope.

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Pediatric mental health is a significant public health challenge. The 1999 U.S. Surgeon General's Report on Mental Health (1) notes that approximately 1 in 5 children in the United States struggle with psychiatric disorders. The number of child and adolescent psychiatrists has increased by 20% in the 20 years since this report; however, the rate of workforce expansion has not met the significant growth in need (2, 3). Only half of youths in need of psychiatric care receive it, with young people in rural and economically depressed areas experiencing greater disparities in access. As a result, primary care providers (PCPs) are often de facto mental health providers. Estimates suggest that more than 80% of psychotropic medications for children are prescribed by nonpsychiatrists. Yet PCPs receive limited training on managing childhood behavioral health disorders during residency and continuing medical education programs (4). PCPs report discomfort in managing care for youths experiencing behavioral health challenges. This discomfort is due to perceived lack of training, competence, and the additional support needed to effectively treat these conditions and leads to barriers to care for such youths in primary care settings.

Child psychiatry access programs (CPAPs) were developed to mitigate the demands for timely access to care and to provide support and education for PCPs. The Massachusetts Child Psychiatry Access Project is a best-practice model for CPAPs and has been replicated in more than 30 states. Although programs vary in structure, funding, support, and services offered, CPAPs generally provide remote

consultation to PCPs to support identification and initial management of children experiencing behavioral health conditions (5). Most CPAPs are staffed by child and adolescent psychiatrists (CAPs) embedded in academic institutions. The CAPs typically use “in-the-moment” teaching methods, with no other mechanism to supplement provider education. Overall, CPAPs have been successful to varying degrees in helping PCPs provide care to children with psychiatric needs (6). Demand remains to build local capacity through education and postconsultation support.

In this column, we describe the development and implementation of the Missouri Child Psychiatry Access Project (MO-CPAP) by using the RE-AIM (reach, effectiveness,

## HIGHLIGHTS

- Pediatric mental health crises are complicated by significant workforce shortage, placing more burden on primary care providers without support.
- Child psychiatry access programs (CPAPs) have demonstrated an ability to address some of the access needs and enhance integration of behavioral health care in primary care settings.
- The Missouri Child Psychiatry Access Project (MO-CPAP) is a unique adaptation with statewide impact that has overcome existing barriers common to CPAPs.

adoption, implementation, and maintenance) framework to highlight unique aspects of this CPAP. MO-CPAP evolved through a collaborative effort among multiple partners in academic institutions, community provider practices, advocacy organizations, and professional trade organizations to provide a fuller continuum of support, beyond educational opportunities, for PCPs. MO-CPAP is staffed with CAPs in academic and community-based settings. In addition to providing CAP consultation, MO-CPAP gives enrolled providers access to care coordination services, such as linkage and referral, and offers postconsultation support directly to families and children. We describe dimensions of the program's planning and adoption as well as evaluation of the program's impact to provide an overview of MO-CPAP (7, 8).

### MO-CPAP

The primary purpose of MO-CPAP is to improve behavioral health access for young people in Missouri. All 99 rural counties in Missouri have a shortage of mental health professionals; the state has 57 rural counties without a single licensed psychologist or psychiatrist. In 2019, Missouri had 266 areas with shortages of mental health professionals, the fifth-highest number of these areas in the country. MO-CPAP's continuum of support was designed to address clear, immediate needs while building capacity for broader impacts (see the online supplement to this column). The program aims to support PCPs in managing treatment of children's mild-to-moderate behavioral health challenges via consultation with a CAP, care coordination support, and/or ongoing educational opportunities. Given the value of pediatrician champions, MO-CPAP was initiated by a statewide pediatric behavioral health taskforce—cochaired by psychiatrist and pediatrician champions—that was convened to specifically address persistent and pervasive barriers to access to behavioral health care among children across this large, mostly rural state (9).

MO-CPAP began in 2018, with private pilot funding from the Missouri Foundation for Health, to first serve seven counties in the state's eastern region and then to expand to eight additional counties in the central region. MO-CPAP contracted with a group of five community- and academically based CAPs selected for their training, practice experience, and community relationships with PCPs to provide consultation. To initiate consultation, PCPs contact a call center (Behavioral Health Response) that manages other behavioral support services and complete a brief intake interview.

MO-CPAP offers provider education via brief webinars developed in partnership with the Child Psychiatry Extension for Community Healthcare Outcomes (ECHO) program, which is based on an established national model for addressing knowledge, capacity, and comfort of PCPs in delivering high-quality specialist care locally (10). Twelve educational modules were produced by using the didactic portion of the ECHO educational sessions. The webinars are accessed on demand by enrolled providers, housed on the

CPAP's website, and available at no cost for continuing medical education credit.

Additional funding through the Health Resources and Services Administration (HRSA) Pediatric Mental Health Care Access program was quickly secured to expand the pilot project statewide by fall 2020, scaling to serve all 114 counties and one independent city. Importantly, HRSA funding allowed the project to add a licensed behavioral health professional to address barriers raised by the MO-CPAP Steering Committee regarding care coordination follow-up, a barrier also encountered by other U.S. CPAPs. MO-CPAP care coordination is provided by the call center that manages intake for CAP, which was expanded to cover care coordination requests by PCPs. This care coordination support is somewhat unique in that it includes direct collaboration with patient families and caregivers. The follow-up care coordinator is responsible for helping referred families make appointments, following up with each family on the status of the referral, problem solving to alleviate barriers, making additional referrals if needed, and communicating the status of the referrals to the PCP until the case is closed.

*Reach.* Enrollment, utilization, and PCP satisfaction data are used to evaluate implementation of MO-CPAP. By May 2021, MO-CPAP had enrolled more than 500 PCPs statewide and had fielded more than 600 calls for psychiatric and/or care coordination consultation. The geographical distribution of enrolled providers reflects MO-CPAP's phased implementation approach as well as early engagement and recruitment efforts that prioritized prescribing providers: two-fifths of enrolled providers practice in the eastern region (one of eight MO-CPAP regions in the state) and about 80% of all providers are physicians, and the majority of other enrollees are credentialed as nurse practitioners. In terms of utilization of consultation support, about 40% of enrolled providers have called to collaborate with a CAP and/or care coordinator on patient care. Satisfaction data suggest PCPs believe MO-CPAP helps them meet the needs of children with mild-to-moderate behavioral health challenges and improves patient care in the local setting.

*Effectiveness.* The triad of MO-CPAP resources—consultation, care coordination, and education—is intended to improve support for PCPs in providing behavioral health care and to increase PCPs' knowledge of, comfort with, and use of evidence-based practices in behavioral health care for children and adolescents, including with screening and prescription of psychotropic medications. PCPs complete a baseline assessment at enrollment and are surveyed at least annually thereafter to evaluate perceived gains. In addition, call data that include patient characteristics, referral questions, diagnoses, potential next steps, teaching points, and referrals are tracked. Preliminary evaluation by PCPs has suggested that MO-CPAP increases access to psychiatric consultation and behavioral health support. Initial findings indicate that MO-CPAP may be supporting PCPs in

managing patient behavioral health care in their practices, without need for higher levels of intervention. As shown by CAP disposition documentation after each consultation, the sole disposition of about 60% of all calls is continued care by the PCP (i.e., referral to CAP for consultation and/or transition of care to CAP is not indicated). Investigations are underway to better understand the impact of MO-CPAP on PCPs, patient care, and patient outcomes, but these initial results are promising. Early challenges include recruiting rural providers in some parts of the state and navigating calls about patients who need support outside the scope of primary care settings. Outreach and engagement efforts are evolving in this state's rural and medically underserved areas, which vary more in terms of available provider types.

**Adoption.** The main vehicle for adoption of MO-CPAP is partnerships with diverse stakeholder entities spanning academic institutions, community providers, advocacy organizations, and professional trade organizations. Leveraging existing collaborations and capacity has been particularly important because of the relatively rapid scale-up of the project from a regional pilot project focused on only 15 counties to a statewide program in just over 2 years.

Project advisory or steering committees were initially convened regionally to support pilot and statewide expansion and are now transitioning into a single multidisciplinary statewide entity consisting of PCPs, CAPs, health care leadership, community and advocacy groups, professional organizations, and other committed stakeholders. Steering committee members monitor implementation efforts, recommend refinements to the program, provide valuable and realistic feedback on products (e.g., marketing, practice guides, data collection methods), and guide decision making on processes and outcomes.

**Implementation.** MO-CPAP was initially conceptualized as a program offering CAP consultation and ongoing PCP educational opportunities and was subsequently expanded to incorporate care coordination support. MO-CPAP evolution is characterized by rapid iterations informed by need, ongoing quality improvement efforts, and input via steering committee stakeholders. At the outset, CAP consultation was defined as a one-time conversation between a PCP and a CAP to discuss a case. Over time, PCPs have increasingly made multiple calls for support for the same patient. However, the CAP responding may not have fielded the original call and therefore may have no background on the previous consultation. MO-CPAP staff recognized the opportunity for quality improvement in tracking follow-up calls, shifting some cases from the level of a single consultation to a process of ongoing collaboration. Provision of a deidentified case consultation summary outlining the discussion between the CAP and PCP, as well as educational “teaching points” after the consultation, have been received positively by enrolled providers. MO-CPAP has developed a parallel, complementary documentation process for care coordination

that is similarly intended to facilitate communication, access to MO-CPAP support, and continuity of patient care. Ongoing MO-CPAP promotion efforts include community outreach to PCP offices, onsite and virtual lunch-and-learn opportunities, and newsletters published every 2 months. In addition to the educational modules, enrolled providers have access to behavioral health toolkits, including medication algorithms, practice parameters from the American Academy of Pediatrics and American Academy of Child and Adolescent Psychiatry, and evidence-based screening instruments.

**Maintenance.** The MO-CPAP Sustainability Committee uses data to identify and advocate for funding sources and braided funding strategies and to navigate additional funding opportunities. Three subcommittees (legislative, insurance, and foundation support) were established. The legislative subcommittee's objective is to develop a strategy to obtain endorsement and support from the Missouri legislature to support ongoing implementation, build awareness of children's mental health needs, and advocate for a future state budget allocation. The insurance subcommittee's goal is to develop a strategy for cost sharing and to support managed care organizations and commercial payers in driving systems change to better support PCPs in providing appropriate behavioral health care to pediatric patients. With collaboration and support from state advocacy organizations and professional trade organizations, the project is exploring how families can advocate for MO-CPAP services that are directly available from their PCPs. Marketing and advocacy messaging efforts are aimed at families to increase access to care, decrease stigma, and address parental behavioral health concerns.

### Strengths of MO-CPAP

As with other CPAPs, the goals of MO-CPAP are to build local capacity through provider-to-provider consultation—ranging from anticipatory guidance, prevention, and early identification to active management in the primary care setting—and to increase access to care. Unique aspects of the program that strengthen the existing models include robust educational offerings, innovative program design to expand the continuum of services, and a community-academic partnership with a systematic governance structure. Challenges related to an aging workforce close to retirement and an uneven distribution of psychiatrists, with more concentration in three major cities, leave most rural counties in the state underserved. MO-CPAP has been successful in engaging PCPs in educational initiatives to improve their knowledge, comfort, and skills with behavioral health practices. The longitudinal, collaborative, interactive nature of the educational support—compared with one-time intensive training—allows for continued learning from peers and ongoing access to subject matter experts.

To reduce barriers to accessing consultation, specific program features include on-demand calling without prior documentation burden for the caller, real-time information gathering by trained intake professionals, and triage for effective resource utilization. In addition, the communication loop is closed through summary documentation sent to the PCP to ensure the accuracy and reliability of the recommendations.

Although MO-CPAP's primary focus is management in primary care settings, youths with behavioral challenges often need access to acute crisis and linkage services. The unique partnership with a call center that can coordinate call intake and provide care coordination affords PCP access to information on a continuum of resources and active crisis intervention when needed, thus influencing important metrics of emergency room visits and inpatient hospitalizations. In addition, MO-CPAP's community-academic partnership structure, governance, and oversight aptly accommodate program development in response to community needs. Thus, diverse stakeholders have been influential in providing continued feedback for accountability as they steer advocacy efforts for sustainability and legislative action.

### Next Steps and Future Directions

By building on the experiences of existing programs, MO-CPAP has demonstrated enhancement of its intended function, utility, reach, and scalability in a cost-effective manner through innovative programmatic and governance structure. This column describes the feasibility of this program to meet the needs of a large population with limited resources. MO-CPAP is uniquely positioned as a fairly robust CPAP that is young yet has significantly expanded and evolved during its relatively brief existence. Thus, these evaluations remain preliminary and limited by similar challenges noted by other, more mature CPAPs (6). Existing MO-CPAP data regarding utilization patterns, engagement, clinical topics, satisfaction with experience, referrals, and even disposition have been encouraging, but systematic evaluation of the program must continue to be strengthened. Nonetheless, this context of rapid iteration affords ample opportunities for substantive research and evaluation that can inform the broader science of CPAPs in the future.

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### REFERENCES

1. Mental Health: A Report of the Surgeon General. Rockville, MD, Department of Health and Human Services, 1999
2. Whitney DG, Peterson MD: US national and state-level prevalence of mental health disorders and disparities of mental health care use in children. *JAMA Pediatr* 2019; 173:389–391
3. McBain RK, Kofner A, Stein BD, et al: Growth and distribution of child psychiatrists in the United States: 2007–2016. *Pediatrics* 2019; 144:e20191576
4. Olsson M, Blanco C, Wang S, et al: National trends in the mental health care of children, adolescents, and adults by office-based physicians. *JAMA Psychiatry* 2014; 71:81–90
5. Sarvet B, Gold J, Bostic JQ, et al: Improving access to mental health care for children: the Massachusetts Child Psychiatry Access Project. *Pediatrics* 2010; 126:1191–1200
6. Bettencourt AF, Plesko CM: A systematic review of the methods used to evaluate child psychiatry access programs. *Acad Pediatr* 2020; 20:1071–1082
7. Glasgow RE, Vogt TM, Boles SM: Evaluating the public health impact of health promotion interventions: the RE-AIM framework. *Am J Public Health* 1999; 89:1322–1327
8. Glasgow RE, Estabrook PE: Pragmatic applications of RE-AIM for health care initiatives in community and clinical settings. *Prev Chronic Dis* 2018; 15:E02
9. Shaw EK, Howard J, West DR, et al: The role of the champion in primary care change efforts: from the State Networks of Colorado Ambulatory Practices and Partners (SNOCAP). *J Am Board Fam Med* 2012; 25:676–685
10. Hostutler CA, Valleru J, Maciejewski HM, et al: Improving pediatrician's behavioral health competencies through the Project ECHO teleconsultation model. *Clin Pediatr* 2020; 59:1049–1057