

Collaborative Care: a Pilot Study of a Child Psychiatry Outpatient Consultation Model for Primary Care Providers

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Abstract

A Child Psychiatry Consultation Model (CPCM) offering primary care providers (PCPs) expedited access to outpatient child psychiatric consultation regarding management in primary care would allow more children to access mental health services. Yet, little is known about outpatient CPCMs. This pilot study describes an outpatient CPCM for 22 PCPs in a large Northeast Florida county. PCPs referred 81 patients, of which 60 were appropriate for collaborative management and 49 were subsequently seen for outpatient psychiatric consultation. The most common psychiatric diagnoses following consultation were anxiety (57%), ADHD (53%), and depression (39%). Over half (57%) of the patients seen for consultation were discharged to their PCP with appropriate treatment recommendations, and only a small minority (10%) of

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patients required long-term care by a psychiatrist. This CPCM helped child psychiatrists collaborate with PCPs to deliver mental health services for youth. The CPCM should be considered for adaptation and dissemination.

Introduction

Approximately 20% (15 million) of the children and adolescents in the USA have diagnosable psychiatric disorders¹ yet only 8000 practicing child and adolescent psychiatrists (CAPs) are available to provide expert treatment and care.² Given the severe national shortage of CAPs, innovative strategies are imperative to ensure that mentally ill children receive the services and treatment that they need.

The American Academy of Child and Adolescent Psychiatry and the American Academy of Pediatrics (AAP) have encouraged collaboration between child psychiatrists and primary care providers (PCPs) to care for children with mental illness.³⁻⁵ Within this collaborative model, PCPs consult child psychiatrists to guide them in the treatment of children with mild to moderately severe disorders, such as attention deficit hyperactivity disorder (ADHD), depression, and anxiety that can be managed within the primary care setting.⁴ More severe cases of these disorders as well as other diagnoses (i.e., bipolar, psychosis, or conduct disorder) continue to be managed in a psychiatric setting.⁶

Although the incorporation of mental health care into a primary care setting is logical, significant barriers impede integration. PCPs have very limited training in assessment and management of major childhood mental illnesses such as anxiety and depression.⁷⁻¹⁰ In addition, our current system of care and reimbursement structure does not allow for PCPs to easily consult with psychiatrists by phone, in most states, regarding mental health treatment plans for their patients.³ Ideally, PCPs would receive both training and access to mental health consultation in a model where mental health providers are co-located in the same clinics as PCPs. However, co-location is often a less feasible option given the national shortage of child psychiatrists² along with the challenges of obtaining reimbursement for co-located services.^{11,12} Another option to address these barriers is to provide PCPs with expedited access to phone and outpatient psychiatric consultation. There are a handful of programs funded by state Medicaid agencies that provide access to child psychiatric consultation, the majority of which have consisted of telephone consultations as opposed to face-to-face consultation.¹³⁻¹⁵ While national organizations advocate for reimbursement of telephone consultation services,³ currently they are not reimbursed in most states. Consequently, significant supplemental funding is required to offset clinician time, making sustainability or dissemination difficult otherwise.

An alternative paradigm that does not rely on external funding/subsidization is to utilize traditional methods of reimbursement for clinical services (i.e., fee-for-service) by providing outpatient psychiatric consultation. Compared to the traditional model, where child psychiatrists provide long-term ongoing care, a model that provides expedited access to outpatient child psychiatric consultation to PCPs with referral back to the PCP for ongoing care would arguably allow more children and adolescents to access child psychiatric services, be an efficient use of child psychiatry resources without requiring major subsidization, and could be easily considered for adaptation and dissemination to other communities. Yet to our knowledge, a fee-for-service outpatient child psychiatric consultation model has not been formally studied.

The primary aim of this study was to pilot a Child Psychiatry Consultation Model (CPCM) designed to provide specialized outpatient psychiatric consultative support PCPs. Secondary aims were to describe reasons for referral, diagnosis, and disposition for patients in the CPCM and to assess pilot PCPs' satisfaction with this model.

Methods

Participants

Twenty-five pilot PCPs selected on the basis of previous attendance of a specialized workshop in adolescent depression care⁷ were invited to participate in the study. The decision to invite this group of PCPs was made because they had received the formal training and reported higher post-training confidence levels in the assessment and treatment of depression required for a collaborative care model.⁷ In addition, the study team believed that such formal training in adolescent depression care was a necessary requirement to help PCPs confidently, safely, and effectively prescribe antidepressant medications and co-manage children and adolescents with depression. The group was limited to these 25 PCPs as this amount of providers, practices, and patients was considered manageable for a pilot study being conducted within an existing clinical infrastructure and limited research study resources. This study was approved by the primary investigator's Institutional Review Board.

Recruitment procedures for PCPs

The principal investigator and study coordinator met with the 25 PCPs to present the pilot model and assess interest in participating in the study. The team explained that the CPCM was best suited for patients who require psychotropic medication treatment, but whose conditions were not severe enough to require long-term psychiatric care by a psychiatrist. All providers were given an informational consult packet which contained a consultation request form and a triage form (Fig. 1) outlining the types of clinical cases that were considered most appropriate for this model of care, namely adolescent depression of mild/moderate severity, anxiety that has failed a trial of therapy, and ADHD that had failed at least two medication trials. The triage form also listed cases that would *not* be appropriate for collaborative management as they would likely require ongoing psychiatric care (i.e., psychosis, mania, trauma, prior suicide attempts, current suicidal intent; see Fig. 1). The principal investigator explained that all consultation requests would be first reviewed by a child psychiatrist. If a case was deemed appropriate for outpatient consultation, the CPCM staff would contact the family to schedule an initial appointment. If the child psychiatrist determined that a case required care outside of the CPCM, then specific referral recommendations would be given to the PCP.

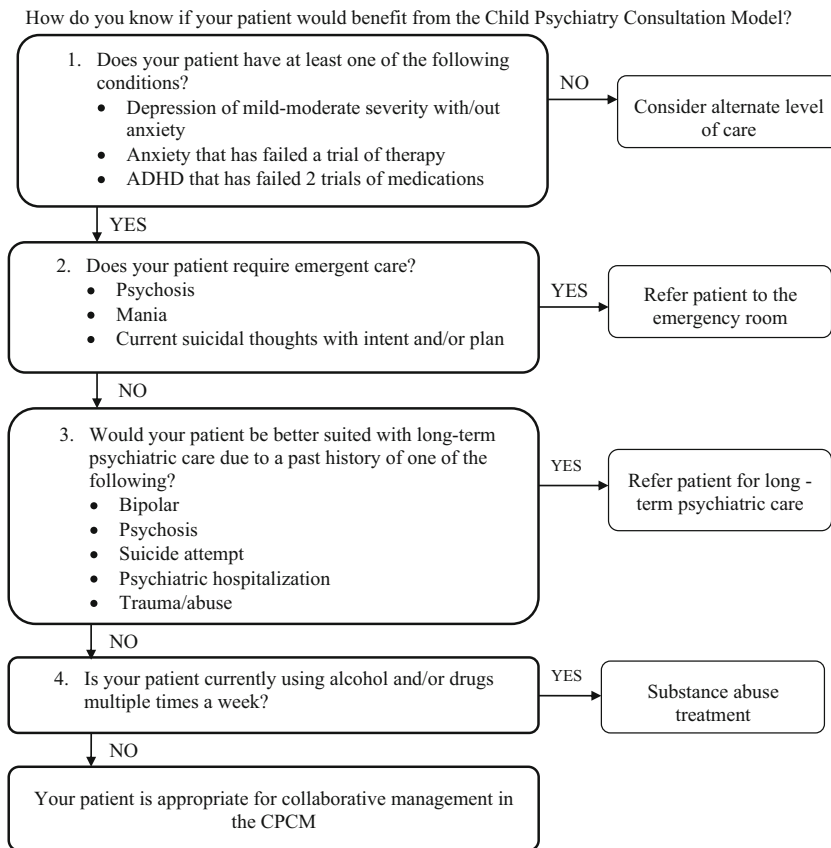
After each consultation, the consulting child psychiatrist would send a copy of the consult evaluation to the PCP within 2–5 business days. Based on the clinical judgment of the child psychiatrist, patients would potentially be seen for additional follow-up visits with the psychiatrist to help with stabilization prior to transferring the patient's care back to the PCP. Of the 25 PCPs approached, 100% provided written informed consent to participate in the study. PCPs were from three different urban practices: one practice ($n=3$ PCPs) serving a predominantly Medicaid population and two practices ($n=8$ PCPs, $n=14$ PCPs respectively) serving mainly privately insured patients.

Child psychiatrists

The PI invited three other child psychiatrists from the PI's institution, a children's specialty care clinic, to participate in the study as consultants to PCPs. Neither the mental health providers nor the clinic staff received material incentives or financial subsidy to participate. CPCM logistics were described as above with a few additional points. Psychiatrists would need to reserve a time slot in their schedule to provide consultations for referring PCPs. In order to preserve usual clinic efficiency, any slots that were unfilled with consultation appointments 2 weeks prior to the

Figure 1

Child psychiatry outpatient consultation model—triage form



appointment date could be opened to other patients. The psychiatrists were also reminded how to document and code for initial consultations using a consultation billing code (i.e., 99241–99245).

Clinical operation

The clinical operation was modeled after the participating child psychiatry clinic’s existing procedures for triaging new patient referrals. All potential referrals were directed to the clinical intake coordinator who verified that the insurance was in-network for the child psychiatrists (i.e., Medicaid or one of six other private insurances). Once verified, each case was then reviewed by at least one CPCM child psychiatrist who used clinical judgment to determine whether the case was suited for either outpatient consultation or required care outside of the model. If the psychiatrist determined that a case required care outside of the model, s/he would notify the PCP and explain the reasons why the patient required treatment in a different setting along with a list of appropriate referral resources.

The intake coordinator contacted each family that was invited for an outpatient consultation to schedule an appointment with the first available provider and sent a letter to the referring PCP with the appointment time. After each visit, the psychiatrist sent copies of consultation notes to the referring PCP and, as clinically indicated, provided referral information for therapy and/or started

medications. The psychiatrist would decide whether it was clinically indicated to see patients for additional follow-up visits prior to discharging the patient back to their PCP. At the final appointment, specific discharge instructions (i.e., rationale for current medications, recommendations for future titration, warning about potential side effects, instructions for follow-up with the PCP) were given to the PCP and to the family. The PI and study coordinator met quarterly with participating PCPs, psychiatrists, and administrative staff to review any questions or concerns about clinic operations.

Measures

Administrative database

As a part of the clinical operation, general demographic and clinical information was tracked regarding patients referred to the clinic, including age, gender, reason for referral, appointment dates, total number of visits, and information about patient disposition (i.e., return to referring PCP or ongoing psychiatric care). This information was stored in a secure administrative database and data were de-identified for reporting purposes.

Retrospective chart review

De-identified data were obtained from a retrospective chart review of the institution's electronic medical record for patients who scheduled and attended an initial consultation in the CPCM. Variables included whether the patient was already in therapy at the time of initial consultation, the patient's primary psychiatric diagnosis after initial consultation and any comorbid diagnoses, the patient's initial treatment plan (i.e., therapy and/or medication), and class of medication if prescribed. A waiver of the requirement for informed consent was granted by the Institutional Review Board for the retrospective chart review.

PCP satisfaction survey

A 4-item scale was designed to assess PCP satisfaction with the CPCM. Respondents indicated agreement with the statements on a 5-point Likert scale ranging from "strongly agree" to "strongly disagree." Items assessed were as follows: "I find the CPCM consults to be useful," "The CPCM helped me to meet the needs of my patients with mental illness," "The CPCM helps me to improve my skills in the mental health care of my patients," and "The CPCM improves access to child and adolescent psychiatry." These items were derived from scales that have been used to evaluate psychiatric consultation models.^{14,15} For the purposes of analysis, responses were collapsed into three categories: "agree/strongly agree," "neutral," and "disagree/strongly disagree." Space was provided at the end of the survey for respondents to include any additional written comments and to provide feedback on the best and worst aspects of the CPCM. Thematic content analysis¹⁶ was applied to all written comments.

Data analysis

Descriptive statistics including frequencies and percentages are reported. Bivariate analyses were performed to compare differences between the two groups (i.e., accepted vs. not accepted patients). Tests of difference for continuous data used unpaired *t* tests and associations between categorical variables were tested using Chi-square analysis. All analyses were conducted using SAS version 9.3.¹⁷

Results

Characteristics of referring PCPs

Of the 25 PCPs who enrolled in the study, 22 (88%) PCPs (19 primary care pediatricians and 3 pediatric nurse practitioners) made referrals to the CPCM. Each of these 22 PCPs referred an average of 3.8 ± 2.4 patients (range 1–8) over 24 months.

Characteristics of referred patients

There were 81 patients (mean age = 12.1 ± 3.6 years) referred for psychiatric consultation in the CPCM, mainly regarding symptoms of depression, anxiety, and/or ADHD (Table 1). Please refer to Figure 2 for a detailed diagram of the progression of patients referred to the model. Of the 81 patients referred to the model, 60 patients were accepted for outpatient consultation and 21 patients were referred for care outside of the model as they required either a higher level of care ($n=10$), a trial of therapy alone ($n=6$), or their insurance was out of network for the child psychiatry clinic (see Fig. 2). The clinical cases that required a higher level of care included six patients with severe aggression, suicidal intent, substance use disorders, trauma, and an unstable eating disorder. Comparison of accepted versus non-accepted patients showed no difference in gender, age, or reason for referral. However, patients who were already in therapy ($\chi^2=4.67$, $df=1$, $p<.03$) or were prescribed medication by the PCP ($\chi^2=4.27$, $df=1$, $p<.04$) at the time of referral were significantly more likely to be accepted for consultation.

Of the 60 families referred and accepted for an outpatient consultation, 49 (82%) scheduled and attended at least one consultation appointment. Notably, some families chose not to schedule an outpatient consultation ($n=9$, 15%) or did not attend their scheduled consultation appointment ($n=2$, 3%). Families were seen for an initial consultation appointment within an average of 18 ± 11 days from the time they were contacted by the clinic staff.

Outcomes of consultation/follow-up

Table 2 shows the primary psychiatric diagnoses, treatment plans, and disposition for the 49 patients seen for consultation. The majority of patients ($n=39$, 80%) had at least one additional comorbid psychiatric diagnosis. When considering both primary and comorbid psychiatric diagnoses, the most common diagnoses were anxiety ($n=28$, 57%), ADHD ($n=26$, 53%), and depression ($n=19$, 39%). Following the consultation, the treatment plan for most patients (82%) involved a combination of outpatient therapy (i.e., referral to or continued care with community therapist) and psychotropic medication. Most patients (76%) received at least two follow-up visits. As PCPs reported some discomfort with titration of psychotropic medication, the CAPs felt it was clinically indicated for patients to receive at least one follow-up visit after initiation of medication.

At the end of the study, of the 49 patients seen for consultation in the CPCM, 6 were still in the process of an extended consultation, 28 patients had been discharged to their PCP for ongoing management, 10 patients did not attend their scheduled follow-up appointment, and 5 patients required long-term psychiatric care outside of the model (Fig. 2).

PCP satisfaction with the CPCM

All but one of the participating PCPs (21/22, 95%) completed a survey of their experience with the model. All agreed that the consultations were useful, helped them meet the needs of their mentally ill patients, and improved their skills in mental health care. Most (90%) reported that the model improved access to child and adolescent psychiatry.

Table 1

Sociodemographic and clinical characteristics of patients referred to the Child Psychiatry Consultation Model (CPCM)

| | All Referred Patients (n=81) | | Patients triaged to outpatient consultation (n=60) | | Patients triaged for care outside of CPCM (n=21) | |
|--|------------------------------|---------|--|---------|--|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Sociodemographic characteristics ^a | | | | | | |
| Age (mean±SD) | 12.1±3.6 | | 12.4±3.1 | | 11.5±4.8 | |
| Age range | 1–17 | | 5–17 | | 1–17 | |
| Sex | | | | | | |
| Male | 36 | 44 | 24 | 40 | 12 | 57 |
| Female | 45 | 56 | 36 | 60 | 9 | 43 |
| Clinical characteristics | | | | | | |
| Reason for referral ^b | | | | | | |
| Depression | 46 | 57 | 36 | 60 | 10 | 48 |
| Anxiety | 33 | 41 | 28 | 47 | 5 | 24 |
| ADHD | 27 | 33 | 22 | 37 | 5 | 24 |
| Disruptive behavioral disorder | 16 | 20 | 8 | 13 | 8 | 38 |
| OCD | 6 | 7 | 6 | 10 | – | – |
| Other | 6 | 8 | 2 | 3 | 4 | 19 |
| More than one diagnosis ^b | 41 | 51 | 32 | 53 | 9 | 43 |
| In therapy at the time of consultation request | | | | | | |
| No | 47 | 59 | 31 | 53 | 16 | 80 |
| Yes | 32 | 41 | 28 | 47* | 4 | 20 |
| Psychotropic medications prescribed by PCPs at the time of consult | | | | | | |
| None | 31 | 38 | 19 | 32* | 12 | 57 |
| SSRI | 27 | 33 | 22 | 37 | 5 | 24 |
| Stimulant | 23 | 28 | 18 | 30 | 5 | 24 |
| Alpha-agonist | 10 | 12 | 10 | 17 | – | – |
| Other | 4 | 5 | 3 | 5 | – | – |

* $p < .05$

^aInformation about race/ethnicity not available

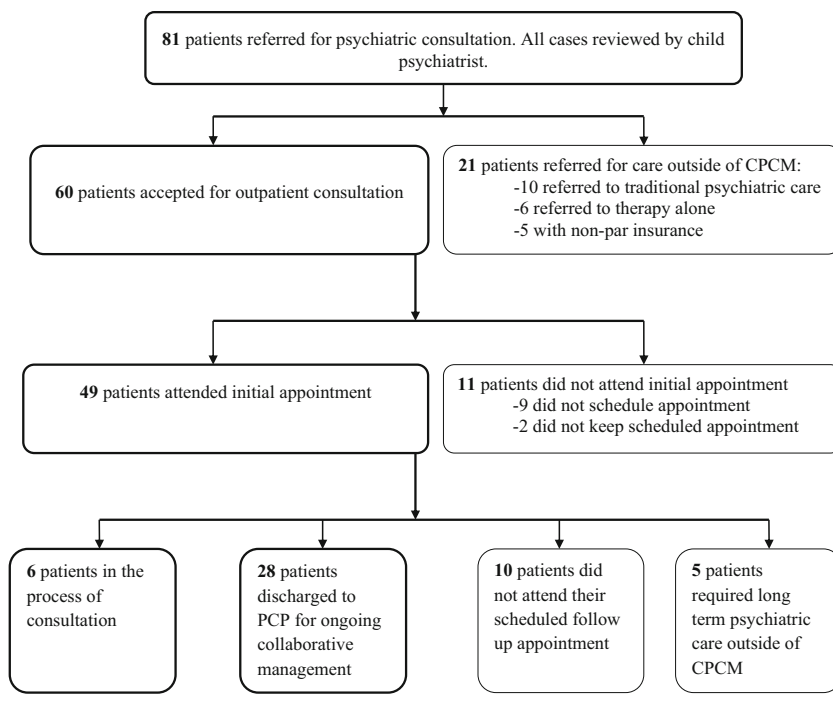
^bAbout half of the patients were referred for more than one diagnosis/reason

^cSome patients were prescribed more than one type of psychotropic medication

Open-ended comments by providers revealed that providers felt that their patients also benefitted from the collaborative care model by receiving better care and improved access to psychiatric specialists. Some highlighted that they previously felt overwhelmed trying to care for children with mental health issues and that the CPCM provided “back up” and “comfort” for them.

PCPs reported the most frustrating aspect of the CPCM was that some patients were denied access to care due to insurance barriers. There were also concerns that some patients and their families refused the referral, despite the fact that the PCP knew that they would benefit from it. In cases where the patients refused to attend the consultation, the PCP felt that they had no “fall back” or help in how to manage the case. One provider felt that (s)he did not use the model often enough to gain knowledge and confidence in treating patients.

Figure 2
Child Psychiatry Consultation Model (CPCM)—referral patient flow



Billable versus non-billable components of the model

The model was designed to ensure that the majority of time spent by the participating child psychiatrists was billable through traditional fee-for-service payments. As such, the child psychiatrists used existing codes for outpatient consultations (i.e., ×9924) and for standard evaluation and management follow-up visits (i.e., ×9921) which were reimbursed by third-party payers. Time spent by psychiatrists triaging new patient referrals was not reimbursed but was part of the standard clinical procedure at the participating clinic. Grant funding was used to support the time spent by the PI and a community liaison to coordinate quarterly meetings with the PCP practices.

Discussion

While previous studies have examined collaborative models involving primarily *telephonic* child psychiatric consultation models to help primary care providers care for children with mild to moderate mental illness,^{13–15} this is the first pilot study examining the feasibility of a *fee-for-service*, outpatient child psychiatric consultation model for community pediatricians. In this study, pediatricians were able to access psychiatric consultation regarding the management of 81 patients with depression, anxiety, and ADHD. In addition, the patients who were selected for outpatient consultations in the model were able to receive expedited appointments for initial psychiatric evaluations (i.e., within less than 3 weeks). Over half (57%) of the patients seen for consultation were discharged to their PCPs with treatment recommendations for ongoing care, and only a small minority (10%) of the patients required long-term care by a psychiatrist.

Table 2

Diagnoses, treatment, and disposition following initial psychiatric consultation for 49 patients evaluated

| | Number | Percent |
|--|--------|---------|
| Primary psychiatric diagnosis (DSM–IV/V) | | |
| Depressive Disorder (MDD, persistent depressive disorder) | 12 | 24 |
| Anxiety Disorder (GAD, specific phobia, social anxiety) | 11 | 22 |
| Attention deficit hyperactivity disorder | 10 | 20 |
| Obsessive compulsive disorder | 4 | 8 |
| Adjustment disorder | 3 | 6 |
| Post-traumatic stress disorder | 3 | 6 |
| Disruptive mood dysregulation disorder | 2 | 4 |
| Autism spectrum disorder | 2 | 4 |
| Social (Pragmatic) communication disorder | 1 | 2 |
| No diagnosis | 1 | 2 |
| Number of co-morbid psychiatric diagnoses | | |
| 0 | 10 | 20 |
| 1 | 17 | 35 |
| 2 | 16 | 33 |
| 3 | 6 | 12 |
| Treatment recommendations | | |
| Observation | 1 | 2 |
| Therapy only | 4 | 8 |
| Medication only | 4 | 8 |
| Therapy plus medication | 40 | 82 |
| Psychotropic medications prescribed by child psychiatrist | | |
| Antidepressants | 30 | 50 |
| Stimulants | 19 | 32 |
| Alpha-agonists | 8 | 14 |
| Atypical neuroleptics | 2 | 3 |
| Number of follow up visits | | |
| 0 | 12 | 24 |
| 1 | 11 | 22 |
| 2 | 9 | 18 |
| 3+ | 17 | 35 |
| Disposition following extended consultation | | |
| Discharged to primary care provider for ongoing collaborative management | 28 | 57 |
| In the process of consultation | 6 | 12 |
| Did not attend their scheduled follow-up appointment | 10 | 20 |
| Required long term psychiatric care outside of the model | 5 | 10 |

DSM Diagnostic and Statistical Manual of Mental Disorders

^a Some patients were prescribed more than one psychotropic medication

Compared with previous studies,^{18,19} the patients in our study exhibited a relatively high level of mental health treatment engagement. Notably, 85% (51 of the 60) of the patients invited for outpatient psychiatric consultation in the model scheduled an initial appointment. This is a high percentage when compared with other studies that have shown that fewer than 50% of patients

referred for specialty mental healthcare schedule initial appointments.¹⁸ There was a very low no-show rate (4%; 2 out of 51) for the initial consultation appointment in the CPCM. Other studies indicate that between 28 and 62% of patients who schedule child mental health evaluations fail to keep their initial appointment.^{18,19} Likewise, only a minority of the patients failed to complete the consultation process in this study (20%; 10 out of 49) which is striking when compared with previous studies which have shown that around 40–60% of children receiving mental healthcare in specialty clinics terminate treatment prematurely.¹⁹ One possible reason for the relatively high treatment engagement in our study could be that the PCPs were referring patients to child psychiatrists with whom they had established relationships and may have communicated that confidence in the referral to families. Another hypothesis could be that patients and families may associate fewer stigmas with short-term mental health consultation than with long-term psychiatric care and so might be more open to accepting psychiatric referrals.²⁰ Another point to consider is that many of the patients accepted for outpatient CPCM consultation had already engaged in medication treatment by their PCP and/or community therapy. Possibly, their past history of mental health treatment made them more likely to follow through with a referral for psychiatric care. However, as patients are significantly less likely to engage in mental health treatment in a specialty mental health setting than in a primary care setting,²¹ this last explanation is unlikely to fully explain the high rates of engagement seen in our study. Future studies should examine factors that influence treatment engagement in this model and compare treatment engagement between this model and traditional care.

Only 10% of the patients seen for initial consultation required ongoing, long-term psychiatric care, which allowed consulting psychiatrists to maintain availability for new consultation requests and allowed patients more rapid access to child psychiatry services. Several factors likely helped to ensure that the majority of patients seen for consultation could be managed by their PCPs following the consultation. First, child psychiatrists triaged all consultation requests and only accepted those cases for outpatient consultation that were deemed most suitable for collaborative management in primary care based on their clinical judgment together with a triage template (see Fig. 1). In addition, the child psychiatrists often provided follow-up visits following the initial consultation to make sure that the patients adequately responded to treatment and were stable enough to transfer back to primary care. Finally, all PCPs in this pilot study had participated in specialized training in depression care which helped them feel more confident prescribing antidepressants.⁷ This confidence may also extend to the treatment of children with anxiety, although this was not specifically examined.

As this consultation model relied on traditional methods of reimbursement for psychiatric consultation (i.e., fee-for-service), the majority of the time spent by participating psychiatrists was billable and did not require supplemental funding. As opposed to telephone consultation models which often require a psychiatrist to be “on call” or rapidly available for telephone consultation,^{14,15} this model required minimal time commitment from the participating psychiatrists outside of their regular clinical schedule. As such, this model is one which could be considered for adaptation and dissemination to other communities where child psychiatrist time is limited and supplemental funding for telephone consultation is not available.

However, a downside of relying on fee-for-service reimbursement is that outpatient consultation could only be accessed by families whose insurance was considered “in network” with the participating providers. To promote access to the CPCM in future studies, it would be helpful to engage a larger group of child psychiatrists who are “in network” with a wider variety of public and private insurances. Another group of patients were not accepted for consultation because they required a different type of care (either initial trial of therapy alone or referral for traditional psychiatric care). Even when referred patients were not accepted for a formal outpatient consultation, they were given appropriate community mental health referral resources which may have benefited both the PCPs and the patients.

Overall, PCPs reported high satisfaction with the CPCM and the consultations. These results support previous findings in much larger, subsidized telephone and outpatient consultation models.^{14,15} According to their written comments, PCPs most valued the expedited access to care for their patients. This access to care, or “back up”, helped PCPs feel more comfortable treating their patients with mental illness.

Limitations

There were a number of limitations of the CPCM and of the study. One notable limitation is that the CPCM, to optimize its success, was only piloted with PCPs who had already received formal training in depression care. Therefore, it is not known how this model would work with PCPs who have not participated in this workshop. However, given the evidence that many PCPs lack training and therefore confidence in caring for children with mental health conditions,^{22–25} it would be unreasonable to expect PCPs to co-manage children with depression, anxiety, and, in some cases, ADHD without such prior training. A second limitation was that this pilot study did not seek feedback from the participating child psychiatrists about the quality and appropriateness of patients referred for outpatient consultation, or from the three PCPs (each of whom came from a different large group practice) who did not participate in the model. While we did not formally assess reasons for not participating among PCPs, we hypothesize that provider-specific characteristics (possibly lack of comfort or confidence in co-managing child mental illness) may have affected participation rates. Thirdly, for this study, the resources were not available to assess patient or family satisfaction with this model of care, but this would be an important aspect for future studies. Similarly, the economics of the model for child psychiatrists were not formally studied. However, all child psychiatrists who saw CPCM patients for consultation were in-network with each patient’s third-party payer, so reimbursement would likely reflect typical in-network collections by each payer. On the other hand, some of the time spent by the participating child psychiatrists (i.e., reviewing consultation requests to determine suitability for the model, visiting PCP practices on a quarterly basis) could not be reimbursed. As PCPs and CAPs gain more experience with this model, it may be possible to create a standardized algorithm for determining suitability for the model which could then be used by non-clinical staff to reduce the cost and psychiatrist time required. In addition, the quarterly meetings with the PCP practices, which were mainly held for research purposes, were not critical to the success of the model and could probably occur less frequently in future models.

Implications for Behavioral Health

This CPCM was used to help PCPs collaborate with child psychiatrists to deliver mental health services for youth with depression, anxiety, and ADHD. This model offered expedited access to child psychiatry consultation and required minimal resources in terms of external funding and child psychiatrist time. As this CPCM relied almost entirely on existing forms of reimbursement (i.e., fee-for-service outpatient consultation), this model could be considered for adaptation and dissemination to other communities where external funding is not available to support telephone consultation and other forms of collaboration between PCPs and child psychiatrists. In addition, this model shows promise to improve treatment engagement among families seeking mental healthcare, which could have a major impact on patient outcomes. Future studies should seek to directly compare the effects of the CPCM with the traditional model (where children are referred for long-term psychiatric care by a psychiatrist) on outcomes such as time to access psychiatric care, patient and family satisfaction and treatment engagement, PCP and psychiatrist satisfaction, and, ultimately, patient outcomes.

In light of the absence of PCP training in mental healthcare,^{22–25} collaborative models like the CPCM are needed to help practicing PCPs access psychiatric consultation. This access to expert psychiatric consultation can help PCPs confidently, safely, and effectively deliver mental health services to children and adolescents. Even though the American Academy of Pediatrics recommends that pediatricians care for children with ADHD, anxiety, and depression,⁴ the Accreditation Council for Graduate Medical Education does not mandate any child psychiatry training during the 3 years of residency training for pediatricians.²⁶ To prepare the primary care workforce to competently identify, and, when appropriate, treat child mental illness, the Accreditation Council for Graduate Medical Education should require clinical training for pediatric residents (i.e., mandatory clinical rotations in outpatient child psychiatry) in child psychiatry. In addition, pediatric residents and psychiatry residents should gain experience with collaborative models where clinicians share expertise to provide the highest quality mental healthcare for children.

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Conflict of interest The authors declare that they have no conflict of interest related to this work.

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