Improving Access to Mental Health Care for Children: The Massachusetts Child Psychiatry Access Project

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KEY WORDS

access to health care, child psychiatry, primary health care

ABBREVIATIONS

PCC—primary care clinician
MCPAP—Massachusetts Child Psychiatry Access Project
APRN—advanced practice registered nurse

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abstract

BACKGROUND: Inadequate access to care for mentally ill children and their families is a persistent problem in the United States. Although promotion of pediatric primary care clinicians (PCCs) in detection, management, and coordination of child mental health care is a strategy for improving access, limitations in training, time, and specialist availability represent substantial barriers. The Massachusetts Child Psychiatry Access Project (MCPAP), publicly funded with 6 regional consultation teams, provides Massachusetts PCCs with rapid access to child psychiatry expertise, education, and referral assistance.

METHODS: Data collected from MCPAP teams measured participation and utilization over 3.5 years from July 1, 2005, to December 31, 2008. Data were analyzed for 35 335 encounters. PCC surveys assessed satisfaction and impact on access to care.

RESULTS: The MCPAP enrolled 1341 PCCs in 353 practices covering 95% of the youth in Massachusetts. The MCPAP served 10 114 children. Practices varied in their utilization of the MCPAP, with a mean of 12 encounters per practice per quarter (range: 0–245). PCCs contacted the MCPAP for diagnostic questions (34%), identifying community resources (27%), and consultation regarding medication (27%). Provider surveys revealed improvement in ratings of access to child psychiatry. The rate of PCCs who reported that they are usually able to meet the needs of psychiatric patients increased from 8% to 63%. Consultations were reported to be helpful by 91% of PCCs.

CONCLUSIONS: PCCs have used and value a statewide system that provides access to teams of psychiatric consultants. Access to child mental health care may be substantially improved through public health interventions that promote collaboration between PCCs and child mental health specialists. *Pediatrics* 2010;126:1191–1200

Access to mental health care for children has been a significant problem for children and families in the United States.[1,2] As a result, the majority of children with mental health conditions severe enough to impair their functioning are not receiving any treatment.[3–6] Given the high prevalence of psychiatric illnesses among children and adolescents, it has become clear that the workforce of specialists in child and adolescent psychiatry is not large enough, by itself, to meet the needs of these children.[7] Consequently, there is a growing realization that improving access to children's mental health care will require the development of new system-based practice models that emphasize collaboration among health care providers.[8–10]

Pediatric primary care providers are eminently suited to play a critical role in responding to the mental health needs of children.[11–13] Mental health issues present in the pediatric primary care setting at a high frequency, often well before any contact with the specialty mental health system.[14] Because of their longitudinal, trusting relationships with children and families, primary care clinicians (PCCs) are well positioned to recognize deviations in children's social and emotional development and to identify mental health needs before they cause significant morbidity.[15] It is unfortunate that, with minimal child psychiatry training provided during general pediatrics residency in combination with limited availability of child psychiatry specialists to whom to refer, PCCs often feel unable to adequately manage children's mental health problems.[16,17]

The results of several previous studies have demonstrated the feasibility and value of systematic models of collaboration between child and adolescent psychiatrists and pediatricians within specific practice settings for improving access to children's mental health care.[18–21] However, large-scale, population-based implementation of a contemporary child psychiatry/primary care collaboration model has not previously been described.

THE MASSACHUSETTS CHILD PSYCHIATRY ACCESS PROJECT

In June 2005, the Massachusetts state budget included funding for the Massachusetts Child Psychiatry Access Project (MCPAP). The political will and funding for the project was the result of long-term advocacy work by several broad-based coalitions of professional and consumer stakeholders working with public policy makers committed to finding solutions for urgent concerns regarding inadequate access to care. Modeled after a promising pilot study at the University of Massachusetts[22] and other previously described localized collaborative models, the aim of the MCPAP was to bring a system for child psychiatry/primary care collaboration to scale across the entire state of Massachusetts. The overarching goal of the project was to improve access to care for children with mental health problems through (1) promoting and supporting the role of the PCC as a legitimate, front-line mental health provider for children and (2) bridging the large gaps between mental health systems and primary care systems, which impede access to mental health services.

The state was divided into 6 regions, and MCPAP teams were created within academic medical centers for each of these regions. The MCPAP teams were tasked with providing collaborative support to all PCCs of their respective regions by implementing a system for the PCCs to obtain (1) immediate informal telephonic consultation regarding the mental health needs of any child in the primary care setting, (2) timely, as-needed provision of formal outpatient consultation for children referred by the PCC, (3) assistance in coordinating care for children who need various community mental health services, and (4) continuing professional education regarding children's mental health designed specifically for PCCs.

The central planning, administration, and coordination of the program was provided by a managed behavioral health organization (Massachusetts Behavioral Health Partnership, a subsidiary of ValueOptions) under contract with Massachusetts for statewide public-sector mental health initiatives, including the Medicaid program. The MCPAP serves all children and adolescents in the state regardless of the child's or family's insurance status.

METHODS

MCPAP Operations

Staffing

Each of the 6 regional MCPAP teams is hosted by a division of child psychiatry within a regional academic medical center and composed of ~1 full-time equivalent (FTE) child psychiatrist, 1 FTE licensed child and family psychotherapist, and 1 FTE care coordinator. Several of the teams include a specialized advanced practice registered nurse (APRN) who works, under supervision, in a role similar to that of the child psychiatrists. The child psychiatrist FTE is usually shared by a group of 3 to 5 faculty members who each contributes a portion of his or her time for performing consultations and fielding telephone calls from enrolled PCCs. The group of child psychiatrists provides on-call coverage for PCCs during usual business hours, Monday through Friday. The psychotherapist and care coordinator are usually full-time employees on their respective teams.

Recruitment/Enrollment of PCCs

Before any provision of service, the MCPAP teams established formal rela-

tionships with primary care practices. Teams were provided lists from both Medicaid and commercial insurance directories of all primary care practices serving children and adolescents in their regions. PCCs included pediatricians, family practice physicians, and nurse practitioners. To make MCPAP services universally accessible to all children and adolescents across Massachusetts, teams arranged onsite orientation meetings for all practices in their region. At these meetings, PCCs met members of the MCPAP team, participated in collegial discussion regarding mental health needs of patients within their practices, and received an introduction and orientation to the program. Most importantly, teams negotiated mutual expectations with PCCs of the practice. For example, although the MCPAP promises to provide assistance and support for the role of the PCC in responding to mental health needs of children, PCCs are expected to maintain involvement in the patient's mental health follow-up to a degree appropriate to the complexity of the patient's issues. Orientation meetings concluded with the establishment of an agreement to participate in the program and subsequent completion of an enrollment document by the lead physician of the practice.

Core MCPAP Services

Telephone Response

Telephone communication is central to the MCPAP clinical process (Fig 1). Enrolled PCCs access the staff of their regional MCPAP team through a hotline, which is answered directly by the care coordinator. The care coordinator personally handles calls to request help in finding community mental health services for children. Otherwise, he or she routes the call for telephone consultation to the appropriate member of the team after identifying the type of PCC question. Clinical questions may be routed to either the available child psychiatrist or the team psychotherapist. The call is exclusively routed to the child psychiatrist if the PCC identifies a need for discussion of psychiatric medication or differential diagnosis. Other types of clinical questions regarding family functioning, behavior management, crisis management, and/or treatment planning are routed to either the MCPAP child psychiatrist or the psychotherapist according to PCC preference and/or the immediate availability of the team member. The telephone consultation is intended to be provided while the patient is still in the PCC's office so that recommendations can be communicated and implemented efficiently. The MCPAP telephone consultant may recommend additional mental health services such as referrals for outpatient therapy, specialized child psychiatry follow-up, crisis services, and/or acute inpatient treatment. In these instances, assistance from the MCPAP care coordinator is offered for implementation of these referrals. In addition to providing "curbside" answers to clinical questions, the telephone consultations also serve a tri-

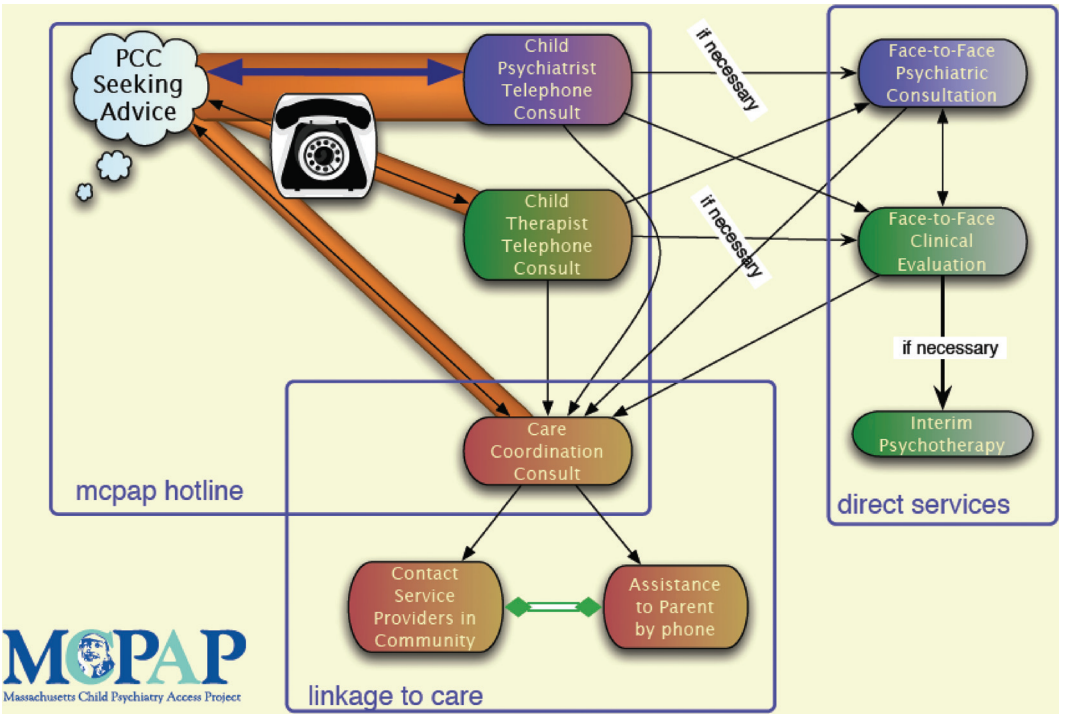

FIGURE 1
MCPAP clinical process algorithm.

age function for the direct face-to-face consultations provided by the MCPAP team.

Outpatient (Face-to-Face) Consultation

MCPAP clinicians, including child psychiatrists, psychotherapists, and APRNs, provide outpatient consultations when telephone consultations are not sufficient for answering the clinical question of the PCC. Outpatient consultations are scheduled as soon as possible, generally within 2 weeks. The MCPAP care coordinators keep PCCs informed about their efforts to schedule these consultations. Concise consultation letters that include detailed recommendations are transmitted to PCCs within 48 hours of the appointment.

Coordinating Care

Acknowledging the practical and logistic needs of PCCs surrounding the provision of mental health care, assistance with identification, referral, and coordination of mental health services is provided by all MCPAP team members. This assistance may be provided in the form of advice to the PCC during telephone consultations regarding selection of resources, intake procedures, securing insurance authorization, and various idiosyncratic access requirements of mental health programs. When needed, the service of the MCPAP care coordinator is offered directly to families to help them secure appointments for services that are difficult to access. The care coordinator becomes an expert at finding clinical resources for families by maintaining close working relationships with intake coordinators at community mental health agencies and keeping updated information regarding waiting times and availability of clinicians for special clinical populations in the local communities within that region. MCPAP clinicians may internally refer patients for an outreach call by the care coordinator at the conclusion of a telephone consult or outpatient consultation. An MCPAP psychotherapist may provide interim outpatient psychotherapy if the waiting time for a recommended clinical resource in the community is unacceptably long (Fig 1).

Continuing Education

All consultative communications are intended to function as individualized, case-based education for PCCs. MCPAP clinicians are encouraged to include discussion of topics such as relevant research, best-practice guidelines, and interviewing/assessment methods in telephone consultations. Web-based educational resources provided by the MCPAP included a blog on which consultants and staff posted brief articles and news alerts regarding topics related to children's mental health in primary care. More recently, the blog was replaced with a more comprehensive public Web site entitled "MCPAP: Connecting Primary Care With Child Psychiatry."[23] This site serves as an educational resource for PCCs regarding children's mental health in primary care and provides original content and links to vetted sources of clinical information, practice guidelines, patient and family handouts, and clinical rating scales. In addition, MCPAP teams organize large regional conferences that deliver continuing education programming on children's mental health in primary care.

Funding

Each medical center is fully reimbursed for the direct and indirect operational expenses of its team through contracts with the program. The team members are employed by their respective medical centers and are able to have "protected time" to devote to the operation of the program. The cost of the program, including administrative expenses, is $2 per child/adolescent per year ($0.16 per member per month) or $3 million for the 1.5 million children in Massachusetts.

Data Collection

MCPAP Encounters

Each discrete service performed by a member of the MCPAP team (including all of the activities represented in Fig 1) is considered an "encounter" and is logged into a secure, Health Insurance Portability and Accountability Act (HIPAA)–compliant structured-query-language online database system. Client applications communicate with a central server via a virtual private network (VPN) tunnel. MCPAP providers enter the data from each encounter on either a desktop computer or personal digital assistant (PDA). Data for statistical analysis are transmitted securely to the central server with identifying information accessible only to the members of the originating MCPAP team.

PCC Satisfaction With the MCPAP

To monitor PCC satisfaction, a brief baseline and follow-up PCC survey instrument that measures perception of access to care, ability to meet the needs of patients with mental health problems, timeliness of access to a child psychiatrist, and satisfaction with MCPAP consultative services is sent to all enrolled providers. PCCs are asked to complete the baseline questionnaire on enrollment. Follow-up questionnaires are mailed annually. Approximately 1 month after follow-up questions are mailed, a reminder call is placed by an MCPAP care coordinator to the PCC office manager to encourage completion and return of the surveys. Follow-up questionnaires do not contain personal information but are labeled with a tracking number to associate the data with the baseline assessment.

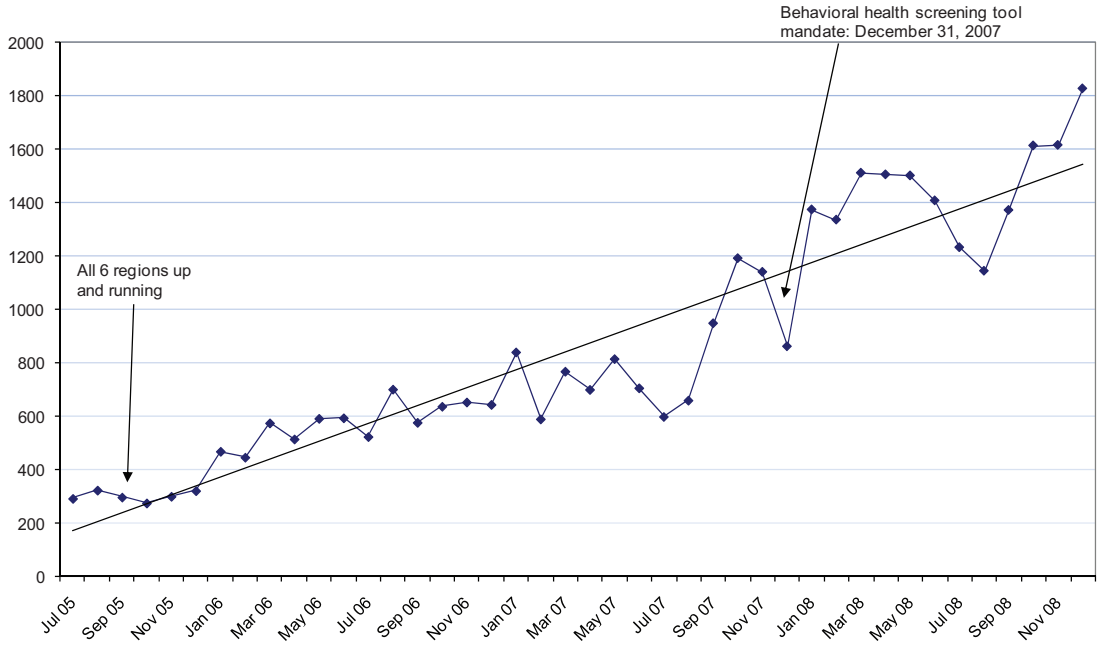

FIGURE 2
Number of MCPAP encounters according to month, all regions.

RESULTS

Encounter Data

MCPAP utilization as measured by encounter volumes has increased significantly since the inception of the program in 2005 (Fig 2; Table 1). By the end of 2008, 353 practices including 1341 PCCs were oriented and voluntarily enrolled to participate in the program. The combined panel size for these practices was estimated to be 1.36 million children and adolescents, which represented 95% of the child/adolescent population of Massachusetts.[24]

The total number of encounters according to services provided and provider type from July 1, 2005, through December 31, 2008, are listed in Table 2. The majority of telephone consultations were provided by the child psychiatrist (45%), which indicates PCCs' high level of demand for discussion with a physician. The face-to-face consultations were equally provided by MCPAP child psychiatrists (2517 encounters) and psychotherapists (2537 encounters). The relatively low frequency of interim psychotherapy encounters (1294 of 33 335 [2.4% of the total]) suggests that interim psychotherapy was not needed or that psychotherapeutic referrals were accomplished in the community outside of the MCPAP system. MCPAP interim psychotherapy was provided for 243 patients for an average of 4.1 sessions per patient. The reasons why PCCs initially telephoned MCPAP team members are listed in Table 3 (data collected from April 1, 2008, to December 31, 2008). The 3 major reasons were diagnostic assistance (34%), information about resources in the community (27%), and medication questions (27%).

Telephone consultations culminated in the negotiation of a plan for the patient's subsequent care. Outcomes of these negotiations for all of the initial telephone encounters during the study period are summarized in Table 4. In 28% of these encounters, the decision

TABLE 1 MCPAP PCC Enrollment and Utilization Data

Time Period	Cumulative No. of MCPAP-Enrolled Practices	No. of MCPAP Encounters[a]	Encounters[a] Per Enrolled Practice	No. of PCCs Enrolled	% of Enrolled Practices That Used the MCPAP	Maximum No. of Encounters[a] Per Practice
Q1, FY 2008 (7/1/2007–9/30/2007)	278	2326	8	1140	63	112
Q2, FY 2008 (10/1/2007–12/31/2007)	290	3261	11	1170	71	200
Q3, FY 2008 (1/1/2008–3/31/2008)	314	4231	13	1211	72	209
Q4, FY 2008 (4/1/2008–6/30/2008)	331	4486	14	1237	74	215
Q1, FY 2009 (7/1/2008–9/30/2008)	339	3744	11	1251	67	214
Q2, FY 2009 (10/1/2008–12/31/2008)	353	5058	14	1341	69	245

Q indicates quarter; FY, fiscal year.
[a] Includes encounters for all activities including telephone, face-to-face, and care coordination.

TABLE 2 Encounters According to Services Provided and Provider Type From July 1, 2005, to December 31, 2008 (Encounters, $N = 35\,335$; Patients, $N = 10\,114$)

Provider Type	No. of Encounters	Telephone Consult Encounters	Face-to-Face Encounters	Care-Coordination Encounters With Providers[a]	Care-Coordination Encounters With Families	Other
Psychotherapist	13 288	3693	2537[b]	4843	1608	606
Child psychiatrist	11 169	6370	2517	676	750	856
Care coordinator	6173	1236	0	3130	1000	807
APRN	4705	2874	965	403	169	294
Grand total	35 335	14 174	5019	9052	3527	2563

[a] May include assistance with early intervention, special education, partial hospitalization, short-term residential programs, and referrals to local behavioral health resources.
[b] Of the encounters, 1243 were face-to-face without therapy; 1294 encounters included interim therapy.

TABLE 3 Reason for Initial Telephone Encounters From PCCs to the MCPAP Team From April 1, 2008, to December 31, 2008 (Initial Telephone Encounters, $N = 3497$)

Reason for Initial Telephone Encounter	No. of Initial Telephone Encounters	% of Total Initial Encounters
Diagnostic	1190	34
Resources-community access	957	27
Medication questions	956	27
Advice for parents	152	4
Second opinion[a]	80	2
School issues	79	2
Crisis	54	2
Other[b]	23	1
Non–member-related[c]	6	0

[a] PCC raises question or concern about care provided by a community mental health provider.
[b] Miscellaneous clinical question regarding assessment or treatment of a specific patient.
[c] General question regarding mental health topic, not linked to a specific patient.

TABLE 4 Outcomes of Initial Telephone Encounters From July 1, 2005, to December 31, 2008 (Initial Telephone Encounters, $N = 8223$)

Outcome	*n*	%
Outpatient consultation by the MCPAP's child psychiatrist or APRN	2306	28
Continue PCC management	2009	24
Care coordination with family by the MCPAP	1615	20
Outpatient consultation by the MCPAP's psychotherapist	1234	15
Refer to a child psychiatrist out in the community	751	9
Refer child back to an existing psychiatrist[a]	157	2
Refer to a community psychiatric crisis service	78	1
Advice about non–patient-related issues	59	1
Refer to psychiatric hospital	14	0

[a] Includes questions regarding patients who were already seeing a child psychiatrist in the community.

was made for the child to receive a face-to-face consultation by the MCPAP child psychiatrist or APRN. For 15%, the MCPAP psychotherapist provided an outpatient consultation. Almost one-fourth (24%) of these initial telephone encounters resulted in the PCC maintaining primary clinical responsibility for the mental health problem. A separate analysis (not presented here) indicated that PCCs agreed to continue to follow 50% of the patients after the initial MCPAP team member encounter. The 92 initial telephone encounters for dangerously troubled children who required hospitalization or immediate crisis services represented a relatively small percentage of the total.

The diagnoses made by MCPAP team members after telephone encounters are summarized in Table 5. Although attention-deficit/hyperactivity disorder, depressive disorder, and anxiety disorders were the most frequent diagnoses (32%, 24%, and 23% of encounters, respectively), there was a wide range of psychiatric diagnoses including complex disorders such as bipolar disorder (5%) and psychosis (1%). Encounters in which substance abuse was discussed were relatively infrequent (2%). Results of additional analysis indicate that 40% of the patients had more than 1 psychiatric diagnosis, and 17% of the patients were receiving more than 1 psychiatric medication. The outcomes of telephone consultations for the 3 most common diagnoses (attention-deficit/hyperactivity disorder, depression, and anxiety disorders) mirrored the outcomes of all mental health diagnoses, as depicted in Table 4. Crisis evaluations, although uncommon, were a more frequent outcome for telephone consultations regarding patients with depression (2% [31 of 1915]) than for patients with either anxiety (1% [13 of 1709]) or attention-deficit/hyperactivity disorder (0.4% [10 of 2300]).

TABLE 5 Patient Diagnoses Made by Telephone Consultation Encounters From July 1, 2005, to December 31, 2008 ($N = 14\,174$)

Diagnosis	*n*	%
Attention-deficit/hyperactivity disorder	4502	32
Depression	3357	24
Anxiety	3276	23
Other psychiatric diagnosis	2212	16
Oppositional defiant disorder	1755	12
Diagnosis deferred (until further information is obtained)	782	6
Bipolar	765	5
Pervasive developmental disorder	695	5
Adjustment disorder	573	4
Posttraumatic stress disorder	451	3
Obsessive compulsive disorder	371	3
Eating disorder	283	2
Substance abuse	252	2
Mood disorder not otherwise specified	204	1
Psychosis	155	1
Developmental disability	147	1
Conduct disorder	115	1
Co-occurring medical condition	72	1
Not applicable, no diagnosis	33	0

More than 1 diagnosis per encounter may exist.

In addition to the educational content of telephone consultations, MCPAP team members organized 8 major continuing medical education full- or half-

day conferences on topics related to child psychiatry in primary care over the 3.5-year study period. Furthermore, there were 702 educational encounters during the study period that represented discussions with PCCs either at their practice sites or over the telephone regarding child psychiatry topics. A recently developed MCPAP educational Web site[23] has 51 of pages of content and has received an average of 5573 page views per month from July 1, 2009, through January 31, 2010. Eighty posts have been made to the online blog.

PCC Satisfaction Data

Of the 1341 enrolled PCCs, baseline surveys were returned by 514 (38%). Of these 514 PCCs, a total of 385 (75%) completed follow-up surveys in 2008 and/or 2009. More than 90% of the respondents in both 2008 and 2009 agreed or strongly agreed that MCPAP consultations were useful. Responses from follow-up surveys in 2008 (n = 244) and 2009 (n = 298) were compared with responses from the 385 baseline surveys (Table 6; Fig 3). As shown in Table 6, the percentage of PCCs who agreed or strongly agreed that there was adequate access to a child psychiatrist increased from 5% to 33%. Similarly, the percentage of PCCs who agreed or strongly agreed that they were able to meet the needs of children with psychiatric problems increased from 8% to 63%, and the percentage of those who were able to obtain a child psychiatry consultation in a timely manner increased from 8% to 80%.

TABLE 6 PCC Satisfaction Survey Results for All Regions That Have Used MCPAP Services, Fiscal Year 2008 (N = 244) and Fiscal Year 2009 (N = 298)

	Baseline, %	Post-MCPAP FY 2008, %	Post-MCPAP FY 2009, %
I find the MCPAP consults to be useful			
Strongly disagree		2	1
Disagree		2	2
No opinion		5	6
Agree		47	55
Strongly agree		45	36
Adequate access to child psychiatry for my patients			
Strongly disagree	62	22	26
Disagree	32	43	40
No opinion	1	3	1
Agree	4	24	28
Strongly agree	1	8	5
With existing resources I am usually able to meet the needs of children with psychiatric problems			
Strongly disagree	40	3	4
Disagree	47	21	25
No opinion	6	9	9
Agree	7	58	53
Strongly agree	1	9	10
I am able to consult with a child psychiatrist in a timely manner			
Strongly disagree	45	2	3
Disagree	42	6	14
No opinion	6	7	4
Agree	7	48	53
Strongly agree	1	37	27

FY 2008, July 1, 2007, to June 30, 2008; FY 2009, July 1, 2008, to June 30, 2009. FY indicates fiscal year.

DISCUSSION

After 3.5 years of operation, a high percentage of PCCs in Massachusetts have voluntarily enrolled in the MCPAP, and >90% of those who returned a follow-up survey reported positive satisfaction. Overall utilization of the MCPAP services has been robust, and a majority of enrolled PCCs used the program each quarter. However, there was substantial variation in the amount of utilization among specific primary care practices. PCC agreement to provide follow-up psychiatric care for 50% of the patients involved in MCPAP encounters indicates a reasonable degree of confidence in the PCCs' ability to manage psychiatric problems within the collaborative relationships created by the MCPAP. It is presumed, although not proven in this study, that a significant proportion of these patients were cared for by the participating PCCs and did not require referral for psychiatric care in the community. The PCCs' willingness to assume mental health care for these patients (without referring them to the limited child and adolescent psychiatrists) helps free up time for specialists to work with patients who have the most complex and severe conditions while providing a cost-effective alternative for a subset of patients with relatively uncomplicated mental health problems.

STUDY LIMITATIONS AND FUTURE DIRECTIONS

There are several limitations to this study. Most concerning is the reliability of the data regarding provider satisfaction. It is unclear whether the positive effects and benefits of the MCPAP could be skewed by reliance on the surveys submitted. Although efforts were made to include all enrolled PCCs, not all PCCs returned the surveys, so the results may reflect more responses from those who found value in the MCPAP. Similarly, in a more fragile mental health climate, in the context of widespread concern about limitations in children's mental health

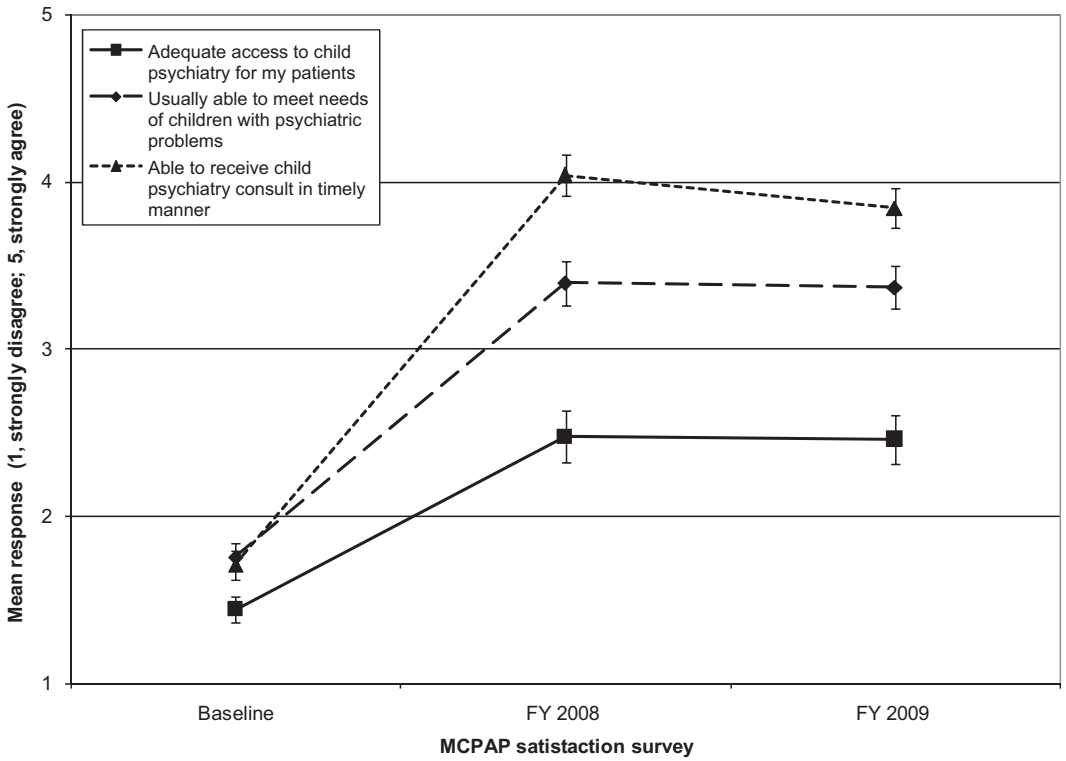

FIGURE 3
Mean MCPAP PCC satisfaction survey responses ($N = 385$ at baseline). FY indicates fiscal year.

resources, PCCs may be more inclined to provide positive responses to preserve MCPAP support during this time.

Another limitation was the lack of meaningful comparisons among sites. Specifically, stylistic differences in the management of collaborative relationships with PCCs across sites may affect PCC utilization and satisfaction; in addition, rural versus urban utilization may vary and reveal important needs and priorities when new MCPAP programs are initiated, which remains an important focus for future studies.

Finally, the substantial variation among PCCs in the utilization of the MCPAP system will need to be explored.

CONCLUSIONS

We have described a large-scale implementation of a regional system for providing PCCs with a set of children's mental health resources including immediate telephonic child psychiatry consultation, direct face-to-face child psychiatry consultation, care coordination, and educational services. Reported data indicate that the system and its resources have been widely used and highly valued by large numbers of PCCs. These PCCs report significant improvement in perceived ability to care for children with mental health problems as well as overall improvement in access to child psychiatry care for their patients.

The establishment of a functional process of collaboration between child psychiatrists and PCCs seems to be feasible and promises to promote increased engagement of PCCs in early identification, treatment, and monitoring of common mental health problems among children and adolescents. Consequently, the MCPAP model provides the opportunity to dramatically expand the capacity of the clinical workforce for these children and to make mental health services more accessible for those families who experience barriers to assessment and treatment within the traditional mental health system. Such collaboration will also be essential for addressing the interplay of behavioral and physiologic needs of patients within evolving models of health care delivery such as medical home and accountable care organizations.

Additional study will be needed to evaluate the cost-effectiveness and value of the MCPAP model. The approximate cost of $0.16 per member per month for the operation of the program is by no means insignificant. Reduction in the utilization of acute psychiatric treatment for previously untreated mental health problems may justify this cost; this hypothesis will be tested in planned future studies. Other cost-offset hypotheses are more difficult to study. For example, unmet mental health needs for children have been correlated with school failure, substance abuse, chronic medical prob-

lems, increased health care utilization, educational and occupational failure, and dependency on public assistance.[25,26] Although difficult to analyze, an understanding of the impact of the MCPAP on the economic consequences of these issues may produce a compelling argument for the dissemination of similar programs in other states.

Finally, efforts to evaluate and continually improve the quality and effectiveness of the actual clinical care for children within the MCPAP system are critically important and in process. For example, data from this study indicate that there is significant room for improvement in the percentage of enrolled PCCs requesting service from their MCPAP team on a regular basis. In addition to assessing perceived ability of PCCs in meeting mental health needs of patients as reported in this study, measuring clinical outcomes for patients whose treatment is provided in the primary care setting will be important to directly assess the function of the MCPAP in improving access to quality mental health care.

The problem of the insufficient workforce of child and adolescent psychiatrists is national in scope.[7] Consequently, there are increasing efforts across the United States to design and implement systems designed for improving collaboration between child and adolescent psychiatrists and PCCs in various stages of development.[27] The design of these systems will need to consider local variation in demographic and geographic factors such as population density and cultural characteristics that affect attitudes toward health care and mental health services. For example, in the state of Washington, the Partnership Access Line, a program modeled after the MCPAP, extensively uses video telemedicine technology to overcome barriers associated with long distances between population centers.[28] As more collaborative systems proliferate, it will be important for comparison studies to be undertaken to examine the influence of program design and features on performance.

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Watching What?: *While living in Germany, I would occasionally run across a tape delayed US football (football, not soccer) game. The German station only showed the plays as they ran and the entire game seemed to last about 20 minutes. Now a study has confirmed that we Americans spend a lot of time watching professional athletes stand around. According to an article in* The Wall Street Journal *(Biderman D, October 6, 2010), only about 14 minutes or 10.9% of a televised baseball game (excluding commercials) shows the initial action, defined by a pitcher throwing the ball or players fielding a ball or running to a base. Amazingly, that is more than a football game in which only about 11 minutes or 9.4% of the broadcast (again excluding commercials) is dedicated to the initial action. So what are we watching during a baseball game? It turns out that what we watch most are players standing around (88 minutes or 68.6% of the time). We watch replays (7.9%) and coaches (3.5%) almost as much as action. Watching a football game is similar. We spend most of our time watching players not playing football (67 minutes or 58.5%) and spend more time on replays (14.5%) than action. Watching coaches occupies 9.4% of our time. One could argue that watching a baseball manager walk to the mound to talk about strategy qualifies as some sort of action but even most announcers of the game agree that not much time is spent televising the action of the game. I must admit that I am grateful for the digital recorder and the fast forward and skip buttons on the remote.*

Noted by JFL, MD and WVR, MD