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Practice Patterns Revisited in Pediatric Psychosomatic Medicine

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Abstract

Background: Given the heightened focus on the implementation of integrated care and population health management strategies, there is a critical need for an analysis of pediatric psychosomatic medicine (PPM) programs.

Objective: The goal was to survey current practice patterns in academic PPM programs in North America regarding their service composition, clinical consultation services, changes in service demand, funding, and major challenges so as to inform and support advocacy efforts on behalf of children in their need for responsive and effective PPM services.

Results: With a 52.5% survey response rate from 122 child and adolescent psychiatry programs in North America, the demand for PPM services was reported to have significantly increased over the past decade as seen in the described expansion in clinical consultation services and the reported higher patient acuity, as well as new responsibilities in the care of youth with psychiatric illnesses who require boarding on medical inpatient services. Although an increased willingness by hospital administrators to fund PPM services was apparent, adequate funding remained a core issue. Although the value of research is well recognized, few programs are engaged in systematic PPM investigation.

Conclusion: This survey provides evidence that the current field of PPM appears to be in an increasingly stronger position within academic medical centers. It is just as apparent today, as it has been in the past, that there is a need to communicate at local, regional, and national levels that PPM is an essential behavioral health service.

Keywords

practice patterns; psychosomatic medicine; delivery of healthcare; children

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The specialty of pediatric psychosomatic medicine (PPM), also commonly called consultation-liaison psychiatry, has occupied a central role in delivering behavioral health services to children with physical illness. Typically, academic medical centers support a multidisciplinary team of behavioral health care providers that is tasked with providing psychiatric consultation in the medical setting. Research in adult psychosomatic medicine has established the benefits of psychiatric consultation in the medical setting including improved clinical outcomes,^{1,2} decreased lengths of stay,^{3,4} and decreased health care costs.^{5,6} Data suggest that earlier psychiatric consultation referral accounts for a significant proportion of the variance with respect to the reduction in the length of hospital stay.^{7,8}

Although studies support the efficacy of adult psychiatry consultation services, similar data from pediatric settings remain limited. Earlier psychiatry consultation has been found to be associated with shorter length of stay and lower hospitalization charges.⁹ Pediatric patients and their parents have reported high satisfaction with PPM services.¹⁰ Given the nation's heightened focus on the implementation of integrated care and population health management strategies,^{11,12} these promising PPM service findings support the critical need for the analysis of existing PPM programs across the country.

In a 2006 national PPM program survey, data suggested wide variations between institutions regarding practice patterns, staffing, and financial support.¹³ A 2015 survey of pediatric consultation-liaison psychologists again highlighted the diversity of setting and practice characteristics across programs.¹⁴ The current survey was conducted to revisit the aforementioned 2006 PPM survey. The survey goal was to make data available on current practice patterns in academic PPM programs regarding their service composition, clinical consultation services, changes in service demand, funding, and major challenges so as to inform and gain more support for children and families in their need for responsive and effective PPM services. Where appropriate, comparisons to the previous 2006 national PPM survey were made.

METHODS

Under the auspices of the American Academy of Child and Adolescent Psychiatry's Committee on the Physically Ill Child (AACAP-CoPI), a survey of academic PPM programs in North America was conducted between October 2014 and January 2015. The AACAP-CoPI (national PPM leaders) and the American Association of Directors of Child and Adolescent Psychiatry (AADCAP) in the US and Canada received a link to an anonymous RedCap survey. Only PPM service directors or their designate were asked to complete the survey. Owing to the survey method, it was expected that the sample would be weighted in favor of university teaching and children's hospitals. This survey qualified for IRB exemption by the Committee on Clinical Investigation at Boston Children's Hospital.

Survey questions focused on the following PPM practice patterns: (1) attributes of the hospital; (2) staff composition and administrative structure; (3) service activity including frequency of major referral questions, clinical services provided, and time spent on PPM activities; (4) funding; and (5) service challenges. Where appropriate, questions included inquiry into the changes in each category over the past 5 years. Given the survey formatting

and respondents' ability to skip questions or occasionally check all options that apply, the number of responses for each question and question type are indicated when applicable.

Descriptive statistics were performed using Microsoft Excel software to generate frequency, mean, variation, and statistical significance. Further, 2 sample *t*-tests were used to compare the number of clinicians per position in small vs large hospitals. Responses to free-text questions were grouped by theme by one of the authors.

RESULTS

A survey link was sent to 122 unique academic PPM programs via the AACAP-CoPI ($n = 167$) and AAD-CAP ($n = 103$) LISTSERVS. This included PPM programs in the US ($n = 115$) and Canada ($n = 7$). A total of 89 respondents started the survey and 64 respondents completed all or most of the survey questions. The survey response rate of 52.5% was much greater than the earlier 2006 survey (33%). Over 80.9% ($n = 68/84$) of the sample was from a university or children's hospitals compared to only 2.4% of the sample being from government-funded institutions. The 2006 survey sample had a lower number of university hospitals (64%).

Most programs indicated that their primary service location was on inpatient medical/surgical units (80.9%, $n = 68/84$) with a much smaller proportion providing outpatient services (8.3%, $n = 7/84$) and only 1 program using telemedicine services. Most programs (56.6%, $n = 47/83$) were housed in large hospitals (101-300 plus beds), while small hospitals (< 100 beds) were also well represented (43.4%, $n = 36/83$).

Service Composition

A total of 96% (96.2%; $n = 75/78$) of surveyed PPM programs have an attending psychiatrist. Small hospitals (< 100 beds; $n = 32/33$) reported an average of 2.19 ± 1.79 attending psychiatrists per program. In terms of full-time equivalents (FTE), 31.3% of small hospitals indicated that psychiatrists were < 0.5 FTE, 46.9% indicated 0.5–1.0 FTE, and 21.9% reported having more than 1.0 FTE psychiatrists per service (Table 1). Large hospitals (101–300 plus beds; $n = 42/43$) reported an average of 2.23 ± 1.72 attending psychiatrists. Among large hospital programs, 11.9% indicated having < 0.5 FTE psychiatrists, 52.4% indicated 0.5–1.0 FTE, and 38.1% reported having more than 1.0 FTE psychiatrists per service (Table 1). There was no significant difference in the number of psychiatrists stratified by hospital size.

Nearly half (46.2%; $n = 36/78$) of surveyed PPM programs have a staff clinical child psychologist. Small hospitals ($n = 13/33$) employ 2.23 ± 1.74 attending PPM psychologists, whereas large hospitals ($n = 21/44$) employ 2.48 ± 1.66 psychologists on average. Among small hospital services, 23.1% indicated having < 0.5 FTE psychologists, 30.8% indicated 0.5–1.0 FTE, and 46.2% reported having greater than 1.0 FTE psychologists per service. For large hospitals, 23.8% of programs indicated having < 0.5 FTE psychologists, 33.3% indicated 0.5–1.0 FTE, and 42.9% reported having more than 1.0 FTE psychologists per service. There was no significant difference in the number of PPM psychologists stratified by hospital size (Table 1).

PPM programs are increasingly being directed by psychiatrists (70.1%, $n = 54/77$) compared to the 2006 survey (38%). Half of surveyed programs (51.3%, $n = 40/78$) reported an increase in psychiatrist staffing in the past 5 years compared to a 33% increase reported in 2006. Although many programs reported increased staffing in the past 5 years, it is evident that PPM services are on average covered by part-time clinician (s) who work in other work settings.

Only 25.9% ($n = 20/77$) of the programs reported employing social workers. Most programs with social workers, regardless of hospital size, employ greater than 1.0 FTE social workers per service (Table 1). Advanced practice nurses were employed by 7.8% ($n = 6/77$) of surveyed programs. Programs with advanced practice nurses employ 0.5–1.0 FTE nurses per service (Table 1).

Small hospitals reported having an average of 1.52 ± 1.12 child and adolescent psychiatry (CAP) fellows, 1.13 ± 0.35 general psychiatry residents, 1.22 ± 0.44 psychology interns, and 1.33 ± 0.57 postdoctoral psychology fellows. Large hospitals reported having an average of 1.24 ± 0.49 CAP fellows, 1.27 ± 0.90 general psychiatry residents, 1.50 ± 0.89 psychology interns, and 1.50 ± 0.76 postdoctoral psychology fellows (Table 1). There were no significant differences among trainee numbers when stratified by hospital size. Overall, programs reported an 11% increase in child psychiatry trainees and a 22% increase in other trainees in the past 5 years compared to a 20% overall trainee increase reported in the 2006 survey.

Clinical Consultation Services

The most frequent reasons for referral ($n = 65$; check all that apply) were similar to data from the 2006 survey: suicide assessment (78.5%), differential diagnosis of medically unexplained symptoms (72.3%), adjustment to illness of depression or anxiety (58.5% and 55.4%, respectively), psychotropic medication evaluation (49.2%), delirium (29.2%), and treatment nonadherence (24.6%). The management of psychiatric patients admitted to medical beds for lack of intensive psychiatric services (medical boarding), a referral reason not queried in 2006, was reported by 23.1% of programs.

Table 2 shows the clinical service activity in PPM programs. Among small hospitals, most programs (70.4%, $n = 19/27$) reported 1–5 new consults per week on average. Among large hospitals, however, programs experience a wider distribution—32.5% reported 1–5 consults per week, 30.0% reported 6–10 per week, 17.5% reported 11–14 per week, and 20.0% reported having greater than 15 consults per week on average. Similarly, large hospitals reported a range of average inpatient bed census counts; most services cover an average census of 1–14 beds per week. Most small hospital programs reported having inpatient census counts of ≤ 5 beds per week (62.9%, $n = 17/27$) (Table 2).

Survey results document a high average frequency of collateral contacts with other providers, including outpatient providers and primary care physicians; daily (38.8%, $n = 26/67$) or more than daily (41.8%, $n = 28/67$) collateral contacts were common. All surveyed programs reportedly respond to consult requests within 24 hours with the majority (59.7%, $n = 40/67$) responding on the same day.

Only 39.1% ($n = 25/64$) of surveyed programs rely on screening tools as part of routine assessment. In a check all that apply question, the most frequently used screening tools included the Screen for Child Anxiety Related Disorders (52.0%), the Vanderbilt Assessment Scales (32.0%), the Children's Depression Inventory (28.0%), the Cornell Assessment of Pediatric Delirium (16.0%), and the Pediatric Health Questionnaire (16.0%).

The following are the most frequent services offered by PPM programs ($n = 64$; check all that apply): diagnostic assessment (100.0%), parent psychoeducation (100.0%), psychiatric medications (98.4%), patient psychoeducation (96.9%), liaison activities (89.1%), supportive psychotherapy (87.5%), coordination with outside provider (85.9%), facilitating outpatient/inpatient psychiatric referral (78.1% and 71.9%, respectively), behavioral modification interventions (67.2%), and cognitive-behavior therapy (64.1%). Only 8.1% ($n = 5/62$) of surveyed programs reportedly use outcome measures, the most frequent being the Children's Global Assessment Scale ($n = 3/62$).

Nearly half of all PPM programs surveyed (45.3%; $n = 29/64$) were actively involved in independent or collaborative research. Of the 22 programs that listed areas of investigation, the most common areas of research focus were chronic physical illness ($n = 8/22$), health service delivery ($n = 7/22$), somatic symptom disorders ($n = 5/22$), and delirium ($n = 3/22$).

Change in service demands

Most PPM programs (89.2%, $n = 58/65$) reported an increase in the number of new consults on their service compared to 5 years ago. In a check all that apply question, increased demand for behavioral health services (87.9%, $n = 51/58$), increased boarding on medical units (43.1%, $n = 25/58$), and expansion of hospital/institutional clinical services to all patients (27.6%, $n = 16/58$) were among the most cited reasons for the consult increase.

Similarly, most programs (88.7%; $n = 55/62$) indicated a perceived increase in clinical service demand in the last 5 years. Of those reporting the increased demand, 54.5% ($n = 30/55$) noted that the demand resulted in less direct patient time, decreased time for liaison, teaching, and research activities, and increased consultant burnout. Programs that reported no adverse effects owing to increased demand (45.5%, $n = 25/55$) indicated that existing staff absorbed the demand (25.5%, $n = 14/55$) or additional staff were hired (20.0%, $n = 11/55$).

Funding

There has been a significant increase in hospital support from 8% in 2006 to 60.0% ($n = 36/60$) in 2015 (Table 3). Departments of Psychiatry and Pediatrics continue to provide significant support while professional billing (fee-for-service) has increased from 31–41.7%. Slight to significant funding increases were reported by 40.8% ($n = 27/66$) of programs, whereas changes to reimbursement rates appear to be fairly evenly split between those reporting either an increase or decrease (Table 3).

Challenges

Table 4 shows high impact issues facing surveyed PPM services (check all that apply question). Funding issues including poor rates of reimbursement (41.7%), inadequate or decreased funding (31.1% and 24.6%, respectively), and reliance on professional fees (14.8%) were common and map closely on to 2006 survey data. Lack of space (24.6%), inadequate staffing (36.1%), and lack of administrative support (24.6%) remain ongoing concerns. Reported difficulties in obtaining adequate referrals found in the 2006 survey (22%) was not a major concern in this survey (1.7%). Programs again reported difficulties accessing outpatient psychiatry services (50.0%), and many (28.3%) of the programs now report a negative effect related to the management of medical boarders.

DISCUSSION

Results from this survey suggest that the current field of PPM appears to be in an increasingly stronger position within academic medical centers. The demand for behavioral health consultation has significantly increased over the past decade as seen in the described expansion in consultation services and the reported higher acuity of patients seen on PPM services. Hospitals have become increasingly aware of the importance of a flexible and responsive PPM service to help with the diagnosis, management, and disposition of patients with complex conditions, along with their need to include psychologic services in hospitals designated as a center of excellence (e.g., transplantation). Services have taken on additional new responsibilities, especially the care of youth with acute psychiatric illnesses, who require boarding on medical inpatient services because of the lack of available intensive psychiatric services in the community. This suggests that pressures to increase market share in an increasingly competitive health care environment have prompted academic medical centers to offer improved access to a continuum of behavioral health services.

This survey does differ in its sampling methodology compared to the 2006 Shaw et al. national survey of consultation programs.¹³ In the earlier survey, 144 programs were polled and included a wide range of medical centers that included university and private- and county-funded hospitals. By contrast, the current survey primarily targeted PPM services in academic university hospitals and children's hospitals by directing survey recruitment efforts through AACAP and AADCAP. These methodological differences explain the bias of the current sample toward academic teaching hospitals and its underrepresentation of government-funded institutions. With this difference in mind, the following discussion highlights the evolution of PPM practice over the past 5–10 years.

PPM staffing appears to have increased, particularly for child and adolescent psychiatrists. Although this increase certainly may be a function of the greater proportion of academic medical centers in the current survey, it may additionally reflect the centers' increasing focus on behavior health services as part of their population health management strategies, as well as the use of evaluation and management codes by physicians. The increase in psychiatrist-led PPM programs (70.1%) compared to the previous survey (38%) likely reflects the current survey's emphasis on hospital settings. It is noteworthy that although there has been an overall increase in staffing, many PPM services continue to be staffed by clinicians who are part-timers and have other service commitments.

Similar to the Kullgren et al.¹⁴ pediatric consultation-liaison psychologist survey, trainees in both psychiatry and psychology play a significant role in the provision of inpatient PPM services. Regarding other disciplines, there appeared to be some increased usage of social workers and nurse practitioners in contrast to our prior survey, perhaps reflecting the financial incentive associated with the use of lower cost employees. Finally, nearly 40% of the PPM programs reported inadequate staffing although surprisingly only 15.0% of programs reported that this was related to staff recruitment and retention difficulties. This latter data suggest that staffing deficiencies may reflect lack of programmatic support as opposed to difficulties with recruitment.

PPM services appear to continue to grow with nearly 90% of programs reporting an increase in new consultations over the past 5 years. This is in the context of increased demand for inpatient consultation services, clinical service expansions, and higher patient acuity. These trends have been replicated in surveys from countries outside of North America.^{15,16} Current PPM services appear to be facing increased patient volumes while needing to remain readily responsive to inpatient management and disposition requests. Services across the country are filling important health care gaps in providing intensive psychiatric services to patients admitted to pediatric medical units because of the inability to find available intensive psychiatric services (e.g., inpatient psychiatric hospitalization).

In providing these increased services, the assessment and management of psychiatric symptoms/disorders in physically ill patients remains an important task. The high frequency of suicide assessment, evaluation of medically unexplained symptoms, management of adjustment, and the diagnosis of depression and anxiety, along with the management of psychotropic medication, remain consistent needs as they always have in the field of PPM. Referral questions regarding the evaluation of delirium and treatment nonadherence are important requests given their critical association with high rates of morbidity and mortality as well as increased total medical costs.

Despite the availability of well-validated screening tools for pediatric psychiatric disorders, only 39.1% of the surveyed programs report their routine use; furthermore, only 8.1% of programs reported the use of outcome measures in patient care. These findings are similar to those reported by the Kullgren et al. survey of inpatient pediatric psychologists.¹⁴ Community programs may be even less likely to incorporate these tools. Although this lack of usage may be a direct function of the increased clinical demands on consultants and the part-time positions of most PPM clinicians, the use of available validated pediatric tools must be considered in routine care as well in the development of multisite networks to advance PPM clinical care and understand effect on health care costs. It is feasible for many of these measures to be incorporated into the electronic medical record and have them be administered either on admission or at the time of consultation.

Many PPM programs reported a decrease in time available for liaison activities. Although this is understandable in light of increased demands and patient acuity, there is evidence to show that liaison work leads to improved professional relationships with pediatric colleagues, greater understanding of the potential benefits and limitations of psychiatric consultation, increased adherence to treatment recommendations, and more satisfaction on

the part of the consultee.^{17,18} Liaison activities typically include education of other health care providers informally in the context of clinical work, but also where possible in formal lecturing and teaching of pediatric interns and residents.

Pediatric staff value timely response and practical management suggestions made by consulting staff¹⁹ and express a high likelihood of making future referrals.²⁰ New programs are generally favorably reviewed by pediatric staff who report PPM services as valuable, that the consultants offer helpful advice, and that the mental health care of their patients improves.²¹ Results from a meta-analysis of adult psychosomatic medicine research⁴ and more limited data from pediatric studies^{19,22} have shown that services are generally highly rated in satisfaction by providers and patients.⁴ It is clear that the PPM services need to continue to work with hospitals to obtain more support and funding for these nonbillable liaison activities that have been shown to improve satisfaction of patients, families,¹⁰ and health care providers.^{4,17}

The inability of PPM services to be self-sustained by professional billing is generally recognized. The current survey results show a significantly higher rate of hospital financial support compared to the prior survey (60.0% vs 8%) indicating that hospitals are increasingly recognizing the presence of a PPM program as providing “essential behavioral health services,” without which pediatricians, surgeons, and nurses would struggle to function efficiently and effectively in responding to patients and their families. These essential services include but are not limited to State and Federally mandated psychiatric evaluations that are required for organ transplant recipients, stem cell transplant patients, and patients requiring psychiatric evaluations in hospital emergency departments. It is also noted that self-reported financial support from departments of psychiatry and pediatrics has not changed significantly between the 2 surveys. This may indicate some reluctance on the part of these departments to extend further financial resources to PPM services as well as their own tight financial restraints.

Adequate funding, a historical difficulty for PPM services,²³ remains a core issue for PPM programs. Programs reported the familiar funding constraints including inadequate insurance reimbursement, insufficient hospital or other funding, lack of reimbursement nonbillable services (e.g., education or collateral care), and difficulties with behavioral health insurance carve outs (e.g., unexpected co-pays, lack of authorizations for behavioral health care). The minimal funding for essential liaison activities is particularly noteworthy as 28% of a consultant’s time may be spent in these critical, but unreimbursable services (e.g., educating other health care givers, team meetings, or collateral care with outside providers).²⁴ In this context, ongoing support for adequate reimbursement services, including use of Health and Behavior codes where applicable,²⁵ is critical. PPM leaders should consider supporting their services when possible in contract negotiations for bundled service contracts as well as consider seeking opportunities to add ancillary staff, which many programs report to be lacking, to maximize reimbursement.

In this survey, less than half of the programs reported any engagement in psychosomatic medicine research, despite being based in academic medical centers. When arguing for the utilization of evidence-based treatment protocols, Kullgren et al.¹⁴ showed that few services

are involved in outcomes or health service delivery research. Research to show the added value of PPM consultation must become a higher priority to document the need for expansion and more funding to hospital administrators and departments of psychiatry/pediatrics for expansion and funding. The development and implementation of quality improvement projects that promote and measure family-centered care¹⁰ is an alternative approach to demonstrate their value.

Historically, PPM staff have reported that they are often isolated professionally from their colleagues in their home psychiatry departments because their primary clinical work occurs in the hospital setting. To counter these issues, it can be helpful for PPM staff to actively seek out collaborative relationships with PPM colleagues at other institutions both nationally and internationally. The AACAP-CoPI or Society of Pediatric Psychology (Section 54) are venues that provide for shared discussion of clinical issues, often facilitated by their listservs, as well as promote joint presentations at national scientific meetings and collaborative research projects.

Limitations of this survey include that the data were obtained by self-report from individual programs without any objective review of program statistics. As already noted, comparison to the previous 2006 survey is limited by the change in the sampling methodology. Although the response rate to this survey was much larger than that of the previous survey, it still does not represent all North American PPM programs, particularly those in Canada. Data are missing as 75% of the program responded to the survey, but only 53% completed all or most of the survey to allow inclusion in the analyses.

CONCLUSION

This survey of academic PPM programs in North America found a continued increased demand and expansion of PPM programs in today's evolving health care environment. Given the complexity of negotiating with insurance companies, it is important to educate families, hospital leadership, insurance payers, and government leaders regarding the importance of psychiatry consultation as a mission critical academic medical center service. Joining together to create a health service delivery research network that allows the critical effect of PPM consultation to be demonstrated in the pediatric health care setting is essential. It is just as apparent today, as it has been in the past, that there is a need to communicate at local, regional, and national levels for the recognition of PPM as an essential behavioral health service.

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TABLE 1.
Service Patterns of National Survey of Pediatric Psychosomatic Medicine Programs

	Small Hospitals (≤ 100 Beds)	Large Hospitals (> 100 beds)	p Values
<i>Staffing</i>	<i>n</i> = 32/33	<i>n</i> = 42/43	
Psychiatrist			
Average number	2.19 ± 1.79	2.23 ± 1.72	0.90
Range	0–8	0–8	
FTEs per program	<i>n</i> (%)	<i>n</i> (%)	
0.5 FTE	10 (31.3)	5 (11.9)	
0.5–1.0 FTE	15 (46.9)	22 (52.4)	
> 1.0 FTE	7 (21.9)	16 (38.1)	
Psychologist	<i>n</i> = 13/33	<i>n</i> = 21/44	
Average number	2.23 ± 1.74	2.48 ± 1.66	0.68
Range	0–6	0–6	
FTEs per program	<i>n</i> (%)	<i>n</i> (%)	
0.5 FTE	3 (23.1)	5 (23.8)	
0.5–1.0 FTE	4 (30.8)	7 (33.3)	
> 1.0 FTE	6 (46.2)	9 (42.9)	
Social worker	<i>n</i> = 5/33	<i>n</i> = 14/42	
Average number	2.60 ± 1.67	2.36 ± 1.65	0.78
Range	0–5	0–5	
FTEs per program	<i>n</i> (%)	<i>n</i> (%)	
0.5 FTE	-	-	
0.5–1.0 FTE	2 (40)	6 (48.9)	
> 1.0 FTE	3 (60)	8 (57.1)	
Advanced practice nurse	<i>n</i> = 3/32	<i>n</i> = 3/43	
Average number	1.00 ± 0.0	1.00 ± 0.0	-
Range	0–1	0–1	
FTEs per program	<i>n</i> (%)	<i>n</i> (%)	

	Small Hospitals (≤ 100 Beds)	Large Hospitals (> 100 beds)	p Values
0.5 FTE	-	-	
0.5–1.0 FTE	3 (100)	3 (100)	
> 1.0 FTE	-	-	
<i>Trainees</i>			
Child and adolescent psychiatry fellow	<i>n</i> = 25/33	<i>n</i> = 37/42	
Average number	1.52 ± 1.12	1.24 ± 0.49	0.25
Range	0–4	0–3	
FTEs per program	<i>n</i> (%)	<i>n</i> (%)	
0.5 FTE	8 (32)	2 (5.4)	
0.5–1.0 FTE	12 (48)	29 (78.4)	
> 1.0 FTE	5 (20)	6 (16.2)	
General psychiatry resident	<i>n</i> = 8/33	<i>n</i> = 11/42	
Average number	1.13 ± 0.35	1.27 ± 0.90	0.63
Range	0–2	0–4	
FTEs per program	<i>n</i> (%)	<i>n</i> (%)	
0.5 FTE	5 (62.5)	2 (18.2)	
0.5–1.0 FTE	2 (25)	9 (81.8)	
> 1.0 FTE	1 (12.5)	-	
Psychology predoctoral intern	<i>n</i> = 9/33	<i>n</i> = 20/42	
Average number	1.22 ± 0.44	1.50 ± 0.89	0.27
Range	0–2	0–4	
FTEs per program	<i>n</i> (%)	<i>n</i> (%)	
0.5 FTE	7 (77.8)	10 (50)	
0.5–1.0 FTE	1 (11.1)	7 (35)	
> 1.0 FTE	1 (11.1)	3 (15)	
Psychology postdoctoral fellow	<i>n</i> = 3/33	<i>n</i> = 8/40	
Average number	1.33 ± 0.57	1.50 ± 0.76	0.71
Range	0–2	0–3	
FTEs per program	<i>n</i> (%)	<i>n</i> (%)	

	Small Hospitals (≤ 100 Beds)	Large Hospitals (> 100 beds)	p Values
0.5 FTE	2 (66.7)	3 (37.5)	
0.5–1.0 FTE	1 (33.3)	3 (37.5)	
> 1.0 FTE	-	2 (25)	
Psychosomatic medicine psychiatry fellow	<i>n</i> = 4/33	<i>n</i> = 0/41	
Average number	1.00 ± 0	-	-
Range	0–1	-	
FTEs per program	<i>n</i> (%)	<i>n</i> (%)	
0.5 FTE	3 (75)	-	
0.5–1.0 FTE	1 (25)	-	
> 1.0 FTE	-	-	

FTE = full-time equivalents.

TABLE 2.

Clinical Service Activity of National Pediatric Psychosomatic Medicine Programs

	Small Hospitals (≤ 100 beds), <i>n</i> (%)	Large Hospitals (> 100 Beds), <i>n</i> (%)
New consults per week	<i>n</i> = 27	<i>n</i> = 38
1–5/wk	19 (70.4)	13 (32.5)
6–10/wk	7 (25.9)	12 (30)
11–14/wk	1 (3.7)	7 (17.5)
15+ /wk	0	8 (20)
Inpatient bed census per week	<i>n</i> = 27	<i>n</i> = 40
Less than 5 each day	17 (62.9)	10 (26.3)
5–10 each day	7 (25.9)	11 (28.9)
11–14 each day	1 (3.7)	8 (21.1)
15–20 each day	2 (7.4)	4 (10.5)
21–25 each day	0	1 (2.6)
Over 25 each day	0	4 (10.5)

TABLE 3.**Funding of National Pediatric Psychosomatic Medicine Programs**

	<i>n</i> (%)
<i>Funding sources (check all that apply)</i>	<i>n</i> = 60
Hospital support	36 (60.0)
Psychiatry department	29 (49.3)
Professional billing	25 (41.7)
Fee-for-service	
Pediatrics Department	9 (15.0)
Endowments/philanthropy	6 (10.0)
University	5 (8.3)
Research grants	4 (6.6)
Government	4 (6.6)
Other department	2 (3.3)
Professional billing,	1 (1.7)
Bundled pricing	
Training grants	1 (1.7)
Other	3 (5.0)
<i>Changes in funding support, past 5 years</i>	<i>n</i> = 66
Significant increase	10 (15.1)
Slight or moderate increase	17 (25.7)
No change	29 (43.9)
Slight or moderate decrease	7 (10.6)
Significant decrease	3 (4.5)
<i>Changes in reimbursement rates, past 5 years</i>	<i>n</i> = 64
Significant increase	1 (1.5)
Slight or moderate increase	15 (23.4)
No change	27 (42.1)
Slight or moderate decrease	14 (21.8)
Significant decrease	7 (10.9)

TABLE 4.

Major Problems for National Pediatric Psychosomatic Medicine Programs

High Impact Problems Facing Services (Check All That Apply)	
<i>Financial problems on service</i>	<i>n (%)</i>
Poor reimbursement rates (<i>n</i> = 60)	25 (41.7)
Insufficient funding (<i>n</i> = 61)	19 (31.1)
Decreased funding from hospital/department (<i>n</i> = 61)	15 (24.6)
Increased dependence on professional fees (<i>n</i> = 61)	9 (14.8)
Patient not covered or out of network (<i>n</i> = 61)	6 (9.8)
Difficulties with charting and billing (<i>n</i> = 60)	4 (6.7)
<i>Operational problems on service</i>	
Inadequate staffing to meet clinical needs (<i>n</i> = 61)	22 (36.1)
Lack of administrative support (<i>n</i> = 61)	15 (24.6)
Lack of space (<i>n</i> = 61)	15 (24.6)
Staff recruitment/retention (<i>n</i> = 60)	9 (15.0)
<i>Hospital/Institutional problems on service</i>	
Increased clinical demand from other departments (<i>n</i> = 61)	16 (26.2)
Poor coordination of services offered by mental health clinicians at your hospital <u>not</u> within your service (<i>n</i> = 60)	11 (18.0)
Patient transitions to adult care (<i>n</i> = 61)	8 (13.1)
Lack of oversight regarding quality of pediatric psychosomatic medicine services by mental health clinicians <i>not</i> within your service (<i>n</i> = 61)	6 (9.8)
Lack of acceptance of pediatric psychosomatic work in hospital (<i>n</i> = 61)	2 (3.3)
Lack of referrals (<i>n</i> = 60)	1 (1.7)
<i>Behavioral problems on service</i>	
Lack of access to outpatient services (<i>n</i> = 60)	30 (50.0)
Management of boarders (<i>n</i> = 60)	17 (28.3)
Increased demand for behavioral health services in context of integrated care (<i>n</i> = 60)	10 (16.7)
Lack of clinical practice guidelines for psychosomatic medication (<i>n</i> = 59)	8 (13.6)