

Integrating Behavioral Health Services Into Pediatric Gastroenterology: A Model of an Integrated Health Care Program

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Integration of behavioral health services into pediatric health care is critical to optimal patient care, but logistic and financial barriers often prevent integration. We describe an integrated clinical, research, and training program bringing pediatric psychologists into a hospital-based pediatric gastroenterology clinic. Almost 300 pediatric patients with gastroenterology problems were seen by pediatric psychologists over the first 31 months. The 3 most common gastroenterology presentations included encopresis, abdominal pain, and irritable bowel syndrome. One third of the patients followed by psychologists were in therapy for less than 1 month and an additional third were seen for between 1 and 4 months, supporting a short-term model of care. Financial arrangements, clinical service reimbursement data, and research and training integration are described. Demonstrations of feasibility and acceptance of psychology services integrated into pediatric care are crucial for new models of health care delivery that more closely align with our biopsychosocial models of health.

Keywords: multidisciplinary, patient care, integrated care, behavioral, pediatric gastroenterology

With increased attention to biopsychosocial conceptualizations of health, the health care industry is making service-based changes to provide optimal care for patients' physical and psychological well-being. A biopsychosocial model encourages comprehensive multidisciplinary assessment and treatment focused not

only on the medical, genetic, and physiological aspects of the illness, but also on patients' emotional status, social support, and coping. Variables such as family functioning, stressors, attitudes, and life events that may impact health are actively considered (Cunningham & Banez, 2006). Integrated care is a "continuum of the extent to which mental health services are interwoven in the medical management of a child's chronic illness" (Walders & Drotar, 1999, p. 199) with variations based on the setting and patient's needs.

Our aim in this article is to stimulate the development of integrated behavioral health services that reflect biopsychosocial models of health using a pediatric gastroenterology (GI) service as a model. We provide a rationale for integrating care in the pediatric GI setting by briefly reviewing the literature on the psychological correlates of common pediatric GI disorders. Then we describe a model of integration

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implemented in a hospital-based outpatient clinic, including data about utilization trends and logistical, administrative, and financial considerations. Finally, we share more informal observations regarding the impact of the program on overall clinical and academic goals.

Background

Integrated care models have been described for some time in adult settings. Improvements have been reported in medical and psychological symptoms, patient compliance, patient and clinician satisfaction, cost-effectiveness, and cost offset (Blount, 2003). Integrating behavioral health treatment into medical care may decrease stigma associated with treatment and improve collaboration and communication between medical and mental health providers (Collins, Hewson, Munger, & Wade, 2010).

In pediatrics, health care integration research has focused mainly on primary care (e.g., Pidano, Marcaly, Ihde, Kurowski, & Whitcomb, 2011) and medical home models (e.g., Homer et al., 2008). Evaluations of primary care programs that include behavioral health services indicate reductions in behavioral or psychological symptoms (Finney, Riley, & Cataldo, 1991; Sobel, Roberts, Rayfield, Barnard, & Rapoff, 2001), parent satisfaction with services (Finney et al., 1991; Sobel et al., 2001), and decreased use of other health services. Other recent collaborative models provide increased access to behavioral health care through remote teleconsultation between pediatricians and child psychiatric providers (Connor et al., 2006; Sarvet et al., 2010) and formal partnerships between mental health agencies and primary care practices (Pidano et al., 2011).

Several articles have described integrated care in pediatric subspecialty settings serving children with atopic dermatitis (LeBovidge et al., 2007), special health care needs (Naar-King, Siegel, & Smyth, 2002), cancer (Kazak, 2001), diabetes (Anderson, Loughlin, Goldberg, & Laffel, 2001; Gelfand et al., 2004), and pain (Odell & Logan, 2013). One description of an integrated care program in pediatric gastroenterology published in book form describes the services provided by one clinical psychologist in an independent practice setting (Cunningham, 1995).

Rationale for Integrating Care in Pediatric Gastroenterology

The prevalence of pediatric GI problems is increasing (Uc, Hyman, & Walker, 2006), and health care utilization for these services is on the rise (Guthery, Hutchings, Dean, & Hoff, 2004). For over a decade, pediatric gastroenterology has been identified as being ripe with opportunities for the integration of medical and behavioral health because many GI conditions are associated with psychosocial concerns and comorbidities (Banez & Cunningham, 2009; Walker, 2008; Wolfe-Christensen et al., 2013). Psychological symptoms can be a precursor or a consequence of GI conditions, and in many cases, psychological and GI symptoms mutually influence each other.

Constipation and Encopresis

Treatment guidelines for encopresis (e.g., UMHS Functional Constipation and Soiling Guideline; Felt, Brown, Van Harrison, Kochhar, & Patton, 2008) include both medical and behavioral strategies (e.g., positive, consistent toileting routines; adherence to high-fiber diet regimens and medications). A review indicated that comprehensive behavioral interventions resulted in an average success rate of 82.8% for children who had failed medical treatment, whereas medical management alone resulted in a 36–58% success rate at 3.5–5 year follow-up (McGrath, Mellon, & Murphy, 2000).

Abdominal Pain

Anxiety and the behavioral consequences of functional abdominal pain can be addressed with psychological services. Gradual exposure back into avoided settings, accompanied by positive reinforcement for well behavior and decreased attention for sick behavior, can be successful in decreasing pain and improving functioning (van der Veek, Derkx, Benning, Boer, & de Haan, 2013). Compared with routine medical care, behavioral treatment (e.g., use of coping statements, relaxation skills, exposure) produced greater reductions in symptoms in a shorter period of time, higher likelihood of pain-free status (Sanders et al., 1989), and greater decreases in school absences and health care utilization (Finney, Lemanek, Cataldo, & Katz, 1989).

Inflammatory Bowel Disease (IBD)

Behavioral health interventions in pediatric IBD focus on coping with chronic illness; adhering to medication regimens; increasing academic and social functioning; managing stress; decreasing depressive symptoms; managing pain; and facilitating discussions between patient, family, and medical team (Banez et al., 2009; Cunningham et al., 2006; Szigethy et al., 2006). In addition, preventative interventions may focus on enhancing problem-solving coping and increasing personal control and social support (Dudley-Brown, 2002).

Medical and psychological symptoms coexist in common pediatric GI disorders, and psychological treatments improve functioning and outcome (Brent, Lobato, & LeLeiko, 2009). The importance of behavioral health is implicitly acknowledged by the requirement that pediatric gastroenterologists demonstrate knowledge of “psychologic considerations” related to abdominal pain, rumination/colic, and several other GI conditions to pass their boards (American Board of Pediatrics; Sub-board of Pediatric Gastroenterology, 2009).

An Integrated Biobehavioral Health Program

The Division of Pediatric Gastroenterology, Hepatology and Nutrition at a northeastern, urban hospital consists of a multidisciplinary team comprising pediatric GI and pediatric psychology attendings and fellows, nurses, registered dietitians, social workers, and child life specialists. The division generates approximately 9,000 outpatient visits annually. A continuum of psychosocial and behavioral health services is available to pediatric GI patients through the hospital Psychiatry/Psychology, Social Work, and Child Life departments, including outpatient treatment, inpatient consultation/liaison, referrals to community services, a pediatric partial hospital program, and hospital support groups. We focus on the specific activities of the pediatric psychologists within the pediatric GI service.

The integration of pediatric psychology in the division is comprehensive, encompassing collaboration in patient care, GI, psychology fellowship training, and research. Psychology’s presence in the clinic began in 2004 with a 0.25

full-time equivalent psychology coordinator whose time was devoted equally to establishing systems and providing clinical care. Beginning in 2006, additional psychology time was added, with a current workforce of five licensed psychologists and one psychology postdoctoral fellow whose collective presence in the clinic is equivalent to approximately one full-time position. Designated psychologists are also integral members of multidisciplinary feeding and food allergy subspecialty teams. We do not include data from these specialized teams, but instead focus on the psychology practice within the general pediatric GI clinic serving the wide array of presenting GI problems.

The aim of the psychology service is to identify psychological factors that influence medical status and to administer brief, problem-focused therapy using evidence-based practices. Treatment concentrates on GI-related problems and psychological factors that may perpetuate or exacerbate those GI presentations. For complex psychological phenomena (e.g., abuse/neglect, comorbid Asperger’s disorder), patients who need services closer to home, and those whose insurance does not cover the services of the GI psychologists, the GI psychologist typically facilitates referrals to outpatient mental health clinics and remains available as an adjunct treatment provider or consultant to the outside provider and the gastroenterologist.

Administrative and Financial Agreements

The integrated clinical program is funded through patient revenues and cost transfers between two hospital departments: Pediatrics (GI) and Psychiatry (Psychology). The Department of Pediatrics initially budgets salary upfront for a percentage of psychologists’ time. Given the nuances of billing for mental health services, the Department of Psychiatry provides authorization, billing, and collection services for the psychologists’ GI patients. All revenues from these patients, minus an administrative fee, are then transferred back to the Department of Pediatrics, which offsets the initial budget outlay.

Referral Process

The process of referral to the psychology service is initiated by the patient’s GI physician during a visit. The GI physicians provide edu-

cation to the family regarding the interrelationship between somatic symptoms and psychological/behavioral processes. This dialogue may begin as early as the initial medical evaluation or may occur following other testing. Given the integrated nature of research and training collaborations for the GI and Psychology departments, GI physicians have engaged in many discussions about the role of emotional and behavioral factors in GI disease and ways to engage families with psychologists in integrated treatment. It is rare for psychologists to be in the room for this dialogue, but whenever possible, GI physicians ask psychologists to meet families who are being referred to psychology while they are at their GI appointment to introduce themselves and their services to the child and family.

If the family is receptive to the referral, they are given contact information and asked to call the Psychiatry Department directly to schedule an appointment. Psychologists' staff will collect the information necessary to obtain any insurance preauthorizations and then schedule patients to see psychologists in the GI clinic.

Setting

The majority of psychology appointments occur in the GI clinic space where any patient copays for the visit are collected by the GI administrative staff. Appointments may be coordinated to occur on the same day as the patient's medical appointments (in which case the patient may be responsible for more than one copayment). However, the majority of families opt to schedule psychology appointments on a separate day that is convenient for them. Frequently, there are informal conversation "check-ins" with their GI physician or a nurse on the day of psychology appointments, when the GI physician or nurse may stop by to greet their patient or to clarify a question about symptoms or medication. However, patients are usually not seen at the same time by psychology and GI providers. Approximately eight patients per week are seen in a separate outpatient psychology clinic because they require appointments on days when their psychologist is not in the GI clinic or because their treatment sessions require biofeedback equipment that is only available in the psychology suite.

Provider Collaboration and Communication

Provider communication and collaboration regarding the medical and behavioral treatment are maintained in several formal and informal ways. Colocation and coordinated scheduling, when possible, maximize the opportunity for collaborative care within the same visit. In addition, GI and psychology clinical notes are documented in a shared electronic health record system. Psychology attendings and fellows participate jointly with the other GI division members in weekly case conferences. Psychologists organize didactic presentations on behavioral health topics (e.g., medication adherence, eating disorders) in a weekly seminar series for GI attendings and trainees and GI physicians teach at psychology seminars on GI-related topics. Sharing clinic, waiting room, and conference room space also allows for frequent, informal communication regarding shared patients and for impromptu consultation during clinic. Finally, GI and psychology providers work together on collaborative investigations and meet during weekly research meetings, providing opportunities for informal discussions and cross-training of GI and psychology fellows. Working alongside each other in clinic and on research projects also makes patient care communication via phone and electronic messaging more likely among psychologists and GI physicians. Doherty, McDaniel, and Baird (1996) described five levels of collaboration with Level 1 defined as little collaboration and Level 5 as close collaboration in a fully integrated system. The GI-Psychology program is a model of close collaboration in a partly integrated system (Level 4). It is not Level 5 because patients are not commonly seen by all professionals jointly within the same appointment and there are separate systems for scheduling and billing.

Clinical Questions

By conducting a retrospective review of pre-existing billing data, we aimed to examine the following questions regarding this pediatric GI integrated care program: (a) What are the demographic and medical characteristics of the patients who are using the psychology service? (b) How many sessions of treatment are patients receiving, and does this vary by presenting

problem? (c) Do all GI physicians refer to the psychology services and at similar rates? (d) How consistent are the referrals to psychology services over time? As a first step, the goal of this study was to examine psychology service feasibility, acceptance by medical providers, and utilization patterns in the first years of its inception, using a preexisting Pediatrics clinics tracking system.

Method

To better understand the patients and utilization patterns of the psychology service, we obtained Institutional Review Board approval to conduct a retrospective review of visits to the GI–Psychology service over a 3-year period beginning in the second year of the program’s existence when psychology services began to be tracked in a Pediatrics database. We selected for patients who were seen in the general GI clinic for at least one general psychology visit between the dates of October 24, 2006, and May 31, 2009. This population did not include patients who were seen by psychologists within the multidisciplinary feeding and food allergy teams. The database did not track patients who were referred to the psychology service but who did not attend a psychology appointment because of not calling for an appointment or cancelling or not showing for appointments, so this sample is limited to those who used psychology services. During the 31-month monitoring period, 291 patients attended one or more psychology appointments, for a total of 1,041 psychology visits.

Results

Characteristics of Pediatric GI Patients Served by Psychology Services

Demographics. Date of birth, gender, race, and ethnicity were extracted from the database. The mean age of children at their first psychology visit was 10.58 years ($SD = 4.25$, $Mdn = 10.7$) and the ages ranged from 2.77 years to 18.65 years. Approximately 20% of the sample was under 6 years of age, 50% were between the ages of 6 and 12 years, and the remaining 30% were adolescents; 55% were boys. Examining gender within each age group, we found that 67.86% of the patients under 6 were boys,

59.03% of patients between 6 and 12 were boys, and 40.66% of adolescent patients were boys. Eighty percent of the sample was non-Hispanic White, 3.1% identified themselves as non-Hispanic Black, 8.5% identified themselves as an “other” ethnicity, and 9.3% did not provide information. Although the database did not contain insurance information for the sample, because this is the only children’s hospital in the state, insurance status could be extrapolated from census data. During the time period of the study, less than 8% of children in the state had no health insurance. Approximately 29% of children were receiving Medicaid coverage in the 3-year period from 2007 to 2009 (Rhode Island Kids Count analysis of the U.S. Census Bureau, 2010; Current Population Survey, 2007–2009, RI 3-year average). GI psychologists are on panels for a range of insurance providers, both public and private.

Presenting GI problems. Based on medical record review at the end of the first visit, psychologists classified the patients’ presenting GI problems into one of eight general categories (see Figure 1): (a) encopresis, which was defined by encopresis, constipation, and painful stooling; (b) abdominal pain; (c) irritable bowel syndrome (IBS); (d) nausea/reflux/vomiting, which included reflux esophagitis, eosinophilic esophagitis, other esophagitis, gastroesophageal reflux, indigestion, nausea and vomiting, nausea alone, vomiting alone, and cyclic/persistent vomiting; (e) IBD (Crohn’s disease, ulcerative colitis, or indeterminate colitis); (f) feeding/weight, which included obesity, weight loss, feeding problems, and failure to thrive not seen by the multidisciplinary feeding team; (g) celiac disease; and (h) other, which included chronic pancreatitis, liver disease, and family history of GI illness. Percentages of medical conditions ranged from 1.7% in the “other” group to 38.1% with encopresis, the most common diagnosis among the psychology patients (see Figure 1).

Demographics by presenting GI problems. Table 1 displays demographic variables for each of the eight categories of GI presenting problems. Patients with encopresis tended to be younger than those with abdominal pain, IBS, nausea/vomiting, IBD, and celiac disease. In addition, patients with feeding/weight problems were younger than those with IBS or IBD. Patients with encopresis and IBD were more com-

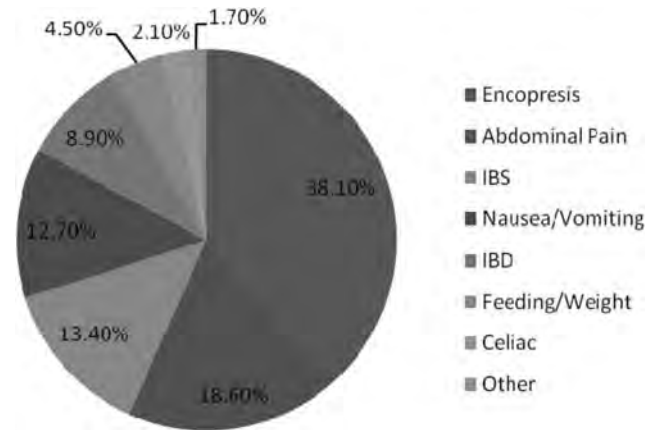


Figure 1. Percentages of medical presentations. IBS = irritable bowel syndrome; IBD = inflammatory bowel disease.

monly boys, and patients with abdominal pain and nausea/reflux tended to be girls.

Characteristics of Psychology Service Utilization

Number of sessions and duration of services. The goal of the psychology service is to provide brief, focused therapy. The GI psychology patients received between one and 24 behavioral health sessions ($M = 3.60$, $SD = 3.92$, mode = 1). As displayed in Figure 2, a large percentage of patients attended only one session (38.5%). As expected, the largest percentage (45.4%) received short-term therapy (2–6 sessions), 11% received moderate-length (7–12 sessions), and 5.2% received long-term (13 or more sessions) therapies.

Approximately two thirds of the psychology patients ($n = 179$) received follow-up treatment beyond an initial evaluation, with approximately 80% seen for their first follow-up appointment within 1 month of their initial evaluation ($M = 35.43$ days, $SD = 77.38$). The most common amount of time to be followed by the psychology service was between 1 and 4 months (33.5%), further supporting the short-term model. Approximately one third of the patients participated in therapy for less than 1 month, 21.2% between 4 months and 1 year, and 11.3% remained in therapy for longer than 1 year.

Psychology treatment characteristics by GI presenting problem. Table 1 depicts psychology treatment characteristics (e.g., intake

vs. follow-up, length of treatment) separately for each medical presentation. Patients with encopresis tended to spend more months in therapy but did not use more sessions than those with abdominal pain. Although the preexisting database did not contain psychological diagnoses for these patients, the majority of patients carried diagnoses of encopresis, pain disorder, psychological factors affecting medication condition, and adjustment disorder, with smaller numbers meeting criteria for anxiety disorders, mood disorders, and behavior disorders, often comorbid with one of the former diagnoses.

Consistency of service volume. To examine patterns of utilization over time, we reviewed the numbers of new patients and psychology sessions over five continuous 6-month intervals during the 31-month monitoring period (see Table 2). There were 279 new patients, for a total of 985 psychology sessions during that time period. Results indicate consistent use of the service by patients with a reliable flow of new patients across the 6-month intervals.

Patient use of the service by GI physician. We were also interested in the extent to which all GI physicians were using the psychology service. Although we did not have data on the number of referrals that each physician made to the service, we were able to examine the distribution of the 291 psychology patients among the GI attendings' caseloads. For the seven physicians, the percentages of the psychology patients ranged from 10.0% to 23.0%, indicating

Table 1
Medical Condition by Demographic Variables and Psychology Treatment Characteristics

	Medical condition	n	Demographic variables			Treatment characteristics			
			Age (years) Mean (SD)	Female (%)	Non-Hispanic White (%)	Urban (%)	Intake only (%)	No. sessions ^a Mean (SD)	No. months in treatment ^a Mean (SD)
	Encopresis	111	7.16 (3.22)	30.63	74.77	21.10	35.13	5.60 (4.61)	6.21 (6.44)
	Abdominal pain	54	12.46 (3.22)	61.11	79.63	28.30	42.59	4.26 (3.45)	2.33 (3.42)
	Irritable bowel syndrome	39	13.63 (3.07)	46.16	71.79	21.05	46.15	3.86 (3.21)	3.28 (4.73)
	Nausea/reflux	37	12.23 (3.97)	64.86	86.49	13.51	27.02	5.56 (3.64)	5.04 (5.47)
	Inflammatory bowel disease	26	13.80 (3.97)	38.46	88.46	24.00	42.31	4.67 (3.81)	4.32 (4.87)
	Feeding/weight	13	9.56 (3.06)	53.85	92.31	23.08	46.15	7.00 (7.26)	6.40 (6.79)
	Celiac disease	6	11.47 (2.24)	33.33	100.00	16.67	33.3	10.25 (5.12)	10.38 (9.63)

^a Analyses include only the subset of patients who returned for follow-up appointments.

that all doctors were referring patients to the service, with some range in utilization.

Program Expenses, Collections, and Offsets

As noted above, the collaboration between GI and Psychology is comprehensive and includes teaching and research in addition to direct clinical care (patient contacts and attendance at weekly GI case conference). Since our collaboration began, we have tracked the upfront Pediatrics expenditures associated with that percentage of the psychologists' salaries devoted to GI clinical efforts and compared these with the clinical revenues collected and transferred back to Pediatrics by the Department of Psychiatry. During Years 1 and 2, collections from psychology clinical services covered approximately 57% and 76% of the upfront costs, respectively (see Figure 3). By the third year of the program, clinical collections met or exceeded the upfront costs for the psychologists' clinical salaries. Over the entire 7 years of the program, psychology clinical collections have recovered 97.5% of the total upfront clinical costs invested by Pediatrics. We attribute this in part to Psychiatry staff familiar with mental health billing, securing preauthorizations and pursuing reimbursement, and to psychologists' attention to reimbursement. Because psychologists receive monthly statements from the billing department detailing charges and reimbursements, they can collaborate with the billing department on reimbursement efforts and adjust their clinical and research responsibilities as needed.

It is important to note other unmeasured financial ramifications of this collaboration. First, access to psychologists within the GI clinic is available only by referral by one of the clinic GI physicians. Because there is a shortage of behavioral health providers in our region who accept the full range of insurances our GI psychologists accept, many community pediatricians report that they refer to the Pediatric GI Division more quickly and frequently as a way to access multidisciplinary services for their patients with GI-related complaints. Thus, the presence of psychologists in the clinic may contribute to GI clinic volume, which in turn may increase utilization of other revenue-generating clinical services for the division. On the other hand, colocation of psychology services requires space, which is a challenge in many

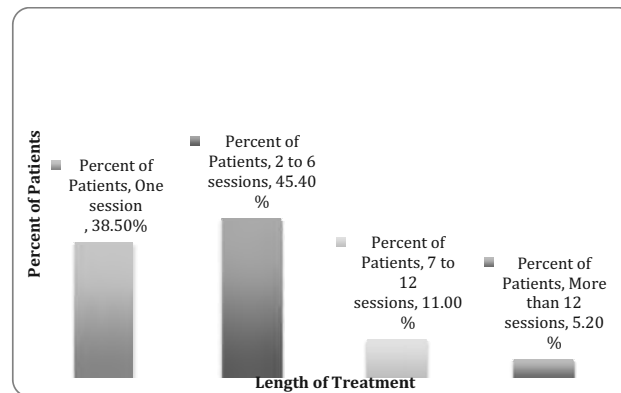


Figure 2. Percentage of Gastrointestinal–Psychology patients by number of sessions.

settings. In our clinic, psychologists occupy one to two clinic rooms 4 days per week. Typically, psychology clinic visits occur in 20- to 30-min or 45- to 50-min blocks of time, with providers using mental health current procedural terminology (CPT) psychotherapy codes. Charges and collections for a comparable amount of GI physician time are generally higher than those associated with psychology services.

Discussion

We have described an integrated care program in pediatric gastroenterology in an urban, northeastern children's hospital, presenting data on the population served by psychology and patterns of utilization in this setting. Across several areas, research suggests that integrating care in pediatric gastroenterology is theoretically grounded. The current review indicates that patients and providers in this setting are willing to subscribe to a biopsychosocial model of health and use psychological services. It has

been our anecdotal experience that pediatric specialists appreciate the value of integrating mental health care into the medical care of their patients, but lament that it is not possible in their departments because of logistical and, more frequently, financial limitations. This article was intended to demonstrate the logistic and financial arrangements that have allowed for the coordination of services and provide an overview of service utilization. Our data indicate that this model can be financially viable following an initial period of investment. The data were limited by reliance on a preexisting database, which did not allow comparison of patients referred for psychology services versus those who accepted services, and did not contain information about socioeconomic status or insurance status. Also, no measures of treatment components provided or treatment outcome were collected. Future research examining which pediatric GI patients will engage in psychological services and the impact of integrated psychological treatment on clinical outcomes (e.g., pain, functional disability, quality of life) are necessary next steps to bolster the evidence in favor of creating these integrated care programs.

Based on our experience, the following are important considerations for establishing a successful integrated program:

Strong Leadership and Commitment to a Biopsychosocial Model

The value placed on integrated care is reflected at all levels of a clinic operation, from

Table 2
Utilization of Psychology Services Over Five Separate 6-Month Time Intervals

Date range	Total patients (n)	New patients (n)
10/24/2006–4/25/2007	197	65
05/01/2007–10/31/2007	177	65
11/06/2007–04/30/2008	177	44
05/06/2008–10/30/2008	198	49
11/04/2008–04/30/2009	254	56

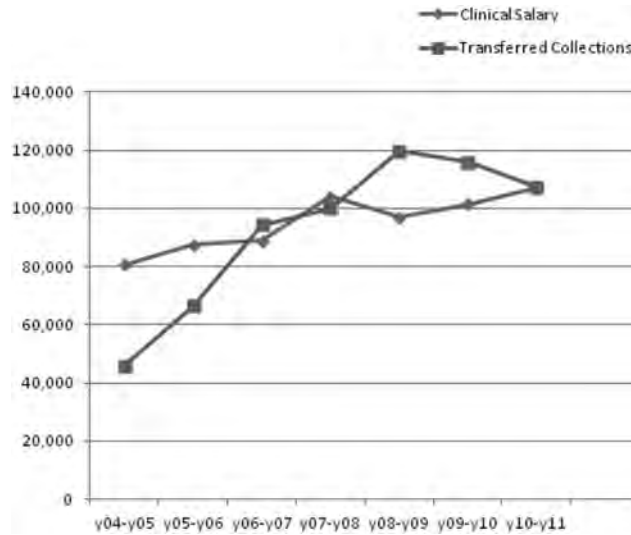


Figure 3. Expenditures and clinical collections since inception of program.

the willingness of administrative staff to schedule appointments and collect copays for professionals from other departments to the discussions physicians have with their patients about the diagnosis and treatment to the willingness of the discipline directors to invest the time and financial and space resources required. A clear vision from the division leadership provides the framework and sets the tone for decisions that are made at multiple levels of the service. In our case, the partnership between GI and Psychology grew out of informal collaborations on small research projects.

Clinical Priorities and Sequential Timelines

We recommend establishing clinical priorities for integrated care and introducing these in a sequential rather than simultaneous fashion. Integrating other disciplines into the clinic environment requires changes in scheduling, space utilization, patient registration and flow, and paperwork. We introduced our first integrated service in our first year during 1 clinic day per week, and then expanded by 1.5 additional days per week in the second year. By the third year, Psychology was present in the clinic 4 days per week, without disruption to the general pediatric GI service, which experienced a parallel expansion in

numbers of GI attendings, fellows, and patient volume.

Flexibility and Open Communication

Integrating two hospital departments requires flexibility, open communication, and a solution-focused problem-solving style at all levels. Both administrative and professional staff members need to communicate regularly to identify important systems and clinical issues. Attendance at shared administrative meetings and case conferences is recommended.

Diversity in Psychology Providers

Similar to pediatric gastroenterologists, psychologists have different areas of specialization within their discipline. It is helpful to match the psychology provider's expertise to the clinical service in terms of familiarity with the patient age group, diagnoses, and general medical management, as well as experience in working in a multidisciplinary setting. In addition, psychologists working in integrated care need the required set of skills for providing brief, problem-focused treatment in an intense, fast-paced environment (Pomerantz, Corson, & Detzer, 2009).

Finally, it should be noted that the delivery of care in this program is determined in part by

limitations of the existing reimbursement systems. There are gaps between payments for health and behavior codes and CPT codes, there is an inability to receive reimbursement for consultation or overlapping time with multiple providers, and insurers frequently require preauthorization of services. Therefore, CPT codes tend to be used and appointments tend to be 30 to 45 min in length. Psychologists attempt to “cover” their time with planned appointments with only small gaps for meeting with patients spontaneously or consulting with the GI physicians, and most patients do not have visits during which they see both their GI physician and their psychologist at the same time. If care is to be truly “integrated,” addressing these administrative and financial limitations will be important (see American Academy of Child and Adolescent Psychiatry, 2009; Blount et al., 2007, for recommendations).

Conclusion

When pediatric medical and behavioral health providers are committed to an integrated care model, are willing to invest resources into a coordinated program, and take the time to align their clinical and administrative systems, we come closer to providing services that mirror the biopsychosocial models of illness that we espouse. Demonstrations of the feasibility and benefits of such programs for consumers and the potential for future health care cost savings will be necessary for advocacy with hospital administrators and third-party payers.

Our working model of integrated care demonstrates to students, house staff, and professionals at all levels that despite numerous economic and regulatory constraints, innovative approaches to the biopsychosocial modes of care can work. Furthermore, the collaborative effort has generated significant academic collaborations that have already led to federally funded research initiatives.

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