Behavioral Health Services in Rural Pediatric Primary Care

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Abstract

Behavioral health concerns are increasingly common in pediatric primary care (Kelleher, McInerny, Gardner, Childs, & Wasserman). Rural physicians, already taxed by shortages of physicians, are faced with this added burden and there is evidence that they struggle to respond effectively (e.g., Jensen et al., 1999). One solution is the integration of behavioral health professionals into these settings and a variety of models for such work have been posited (e.g., Bray & McDaniel, 1998). The current paper discusses the rationale for and advantages to collaborative models of care. In addition, this paper describes a model program which has served children and their families in rural Nebraska since 1997. Future directions for this program and insights gained over the past nine years are shared.
Behavioral Health Services in Rural Pediatric Primary Care

It has been almost three decades since behavioral concerns were termed the “new morbidity” in pediatric primary care practice (Haggerty, Roughman, & Pless, 1975) and data continue to emerge in support of that trend. In a recent survey, pediatricians ranked Attention-Deficit Hyperactivity Disorder (ADHD), oppositional behavior, and sleeping problems as the most common presenting concerns in their practices (Arndorfer, Allen & Aljazireh, 1999). Likewise, a study of clinician-identified psychosocial problems in primary care demonstrated an increase from 6.8% in 1979 to 18.7% in 1996 (Kelleher, McInerny, Gardner, Childs, & Wasserman, 2000). Moreover, two national studies showed diagnostic assessments for children with ADHD increased three-fold in primary care between 1989-1996 (Hoagwood, Kelleher, Feil, & Comer, 2000).

In response to this trend, primary care physicians are increasingly performing as “gatekeepers” to the mental health service system (Bray & McDaniel, 1998; Mori, LoCastro, Grace, & Costello, 1999). Unfortunately, research consistently demonstrates that physicians struggle to fill this role (Dworkin, 1993). For example, as stated above, ADHD is one of the most common presenting behavioral health concerns in primary care, yet results from a large epidemiological study showed that of those with a diagnosis of ADHD, only 12.5% were treated with a stimulant medication during the previous year (Jensen et al., 1999). Likewise, two national surveys showed only 50% of children in “real-world” primary care practice settings received care commensurate with guidelines published by the American Academy of Child and Adolescent Psychiatry (Hoagwood et al., 2000). Finally, in the Multimodal Treatment Study of Children with ADHD, children with ADHD who received “treatment as usual,” in community-
based care, had significantly poorer outcomes than children who received medication therapy in the context of the study protocol (Pelham, 1999).

This situation has critical implications in rural settings, which are often identified as “mental health profession shortage areas” based upon population-to-provider ratios. The lack of behavioral health resources in these areas may result in a larger volume of behavioral health concerns presenting in primary care than estimated in national samples (Lavigne et al., 1999). Moreover, rural physicians are expected to act not only as gatekeepers but also as specialists in treating such concerns. For many rural practices, this scenario takes place in a setting already taxed by a shortage of primary care physicians and the repercussions can be dire. For example, one study showed that 25% of rural physicians reported they would leave their jobs in the next two years due to the overwhelming demands placed on them in their practice (deGruy, 1997).

Integration of Behavioral Health Services into Primary Care Settings

One solution for providing effective, high-quality behavioral health services in pediatric primary care is the integration of behavioral health providers into that setting. Schroeder (1979) pioneered this model in rural North Carolina and it has gained increasing popularity in the past decade. The purpose of the present paper is to describe the advantages of collaboration between behavioral health and primary care providers, particularly for rural areas. In addition, this paper will describe the activities and outcomes of one such program in rural Nebraska. Finally, insights and impressions regarding the use of this model in rural primary care will be discussed.

A variety of models for integrating behavioral health services into primary care have been described (Bray & McDaniel, 1998; Drotar, 1995; Strosahl, 1998). A less “intensive” collaboration, for example, might be one in which professionals work under separate roofs but share referrals and consult as needed, possibly facilitated by a mass screening service. At the
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other extreme, Strosahl (1998) has proposed a model called the “primary behavioral health model” in which psychologists are part of the primary care staff, seeing patients on an as-needed basis. In this model, the psychologist “keeps pace” with the volume of patients seen in a primary care setting, using brief and limited follow-up. A more moderate approach (and the one espoused in the program described below) might be one in which there is “co-location” with frequent, informal collaboration as needed. Behavioral health providers see patients in the primary care practice taking referrals from and consulting with physicians but scheduling traditional one-hour follow-up sessions.

Regardless of approach, there are a number of apparent advantages to such models. First, physicians benefit from the ready referral source and may spend less time managing such behavioral health concerns. In fact, a recent study by this group showed rural physicians spent an average of 48 “extra” minutes per day in sessions during which behavioral concerns were raised, even when they had access to a co-located, collaborative clinic (Cooper, Valleley, Polaha, Begeny, & Evans, in press). Second, physicians who have regular contact with behavioral health professionals have the opportunity to increase their own knowledge and skills related to such issues. For example, a study by this group showed that co-located, collaborative practice was associated with the increased use and long-term maintenance of empirically-supported assessment practices for ADHD (Polaha, Cooper, Meadows, & Kratochvil, 2005). Other studies of collaborative care, using adult samples, have found improved use of medications and behavioral interventions by physicians (e.g., Mynors-Wallis, Gath, Day, & Baker, 2000).

Advantages are not limited to physicians. Patients benefit from obtaining a behavioral health referral from a physician with whom they’ve had a long-standing relationship, which may make them more likely to follow-through in attending sessions. In addition, co-located,
collaborative models offer increased confidentiality. This is a particularly important issue in rural areas where accessing behavioral health services may have greater stigma and it can be clear to the community who is accessing those services when, for example, their car is parked outside a free-standing mental health clinic. Lastly, the increased continuity of care offered by collaborative models may have the added benefit of decreasing “overuse” of primary care visits (Finney, Riley, & Cataldo, 1991; Valleley, Polaha, & Evans, 2004). Decreased medical use has a critical advantage for rural families who often have to travel significant distances for such services, resulting in increased cost and lost wages.

Finally, behavioral health providers benefit from collaborative models of care. First, ease of case coordination (through informal hallway consultations or regularly scheduled practice meetings) may reduce time lost playing “phone tag” with physicians. Second, in the context of increased professional interactions on a day-to-day basis, behavioral health providers can educate physicians as to appropriate referrals, leading greater effectiveness and impact. As physicians learn more about the range of services offered by the behavioral health provider, they may begin to refer a wider variety of patients and increasingly triage cases for prevention and/or early intervention.

In sum, models of collaborative care appear to have an important place in rural communities where resources are lacking. Physicians, behavioral health professionals, and, most importantly, patients, may all benefit from integrated care. To date, however, there are few published accounts of practical aspects of the development and maintenance of such a model, particularly in rural communities. The following includes an account of one such program which has been well-received in the state of Nebraska. Data presented throughout this account were generated using ongoing program evaluation mechanisms in attempts to describe this model
The Pediatric Behavioral Health Outreach Program

For the past nine years, the Department of Pediatric Psychology at the Munroe-Meyer Institute (MMI), University of Nebraska Medical Center has been developing a network of co-located, collaborative behavioral health clinics (BHCs) known as the Pediatric Behavioral Health Outreach Program. In 1997, MMI established its first outreach clinic in Columbus, Nebraska, in cooperation with Columbus Community Hospital Pediatrics. Since that time the program has expanded, with BHCs in 14 primary care clinics (See Figure1). Ten of these clinics are located in rural communities designated as “mental health professional shortage areas.” As a side note, in September 2004, the program initiated an adjunct Pediatric Behavioral Telehealth Clinic to further extend the aims of this program.

Service

The primary mission of the Pediatric Behavioral Health Outreach Program is to provide high-quality, integrated behavioral health services to children and adolescents and their families in underserved communities. The predecessor to the first BHC was a traveling Genetics Clinic from MMI whose team included a psychologist from the Department of Pediatric Psychology. It was in the context of this clinic, occurring four times annually that MMI faculty became aware of the desperate need for mental health referral sources in rural Nebraska and forged relationships with some of the primary care practices that now house behavioral health clinicians from the Pediatric Behavioral Outreach Program.

Operations at each site vary, however, in general, clinicians take a majority (approximately 70-100%) of their referrals from the physicians at that clinic. A smaller percentage of referrals are made from other primary care clinics in the area, local behavioral health providers, and the school system(s). Clinicians make use of empty exam rooms for
standard 50-minute patient visits. The number of sessions provided at a given practice range from 5-25 per week depending on clinician availability and the size of the practice (i.e., demand for services). Overall, it appears that three pediatricians in a rural setting fuel a full-time (20-25 hour) behavioral health caseload. In addition, the Program has recently developed clinics in four family practice settings where it appears that 5-6 family practice physicians provide an 8-15 hour caseload for the BHCs pediatric behavioral health specialists.

The present model divides administrative duties among the BHC clinician, an on-site coordinator, and administrative staff at MMI. An identified primary care staff member provides on-site coordination to include maintaining a list of those referred to the BHC, calling families to schedule when a new patient slot is available, and faxing insurance information to MMI before the scheduled appointment. MMI administrative staff members coordinate patient insurance authorization and billing as well as the maintenance of records. MMI pays a small rental fee to the primary care practices (typically about $100-200). Because the program does not supplement wages for the on-site coordinator, every effort is made to keep these duties as limited as possible (i.e., BHC clinicians do not use these staff to photocopy, fax, return phone calls, etc.).

BHC clinicians are responsible for scheduling all return visits for their ongoing patient caseload, providing the services, and consulting with physicians as needed. The BHC clinician prepares a progress notes immediately after each visit for distribution to the primary care physician which is then filed in the patient’s medical chart but is identified as “not for further release.” (In some practices these notes are copied on brightly colored paper or maintained in a separate section of the chart to avoid accidental distribution). Thus, clinicians make every attempt to keep the physicians up-to-date on patient progress/concerns.
Presently, across the 14 extant clinics, over 100 families are seen weekly with over 90% of these occurring in mental health profession shortage areas. Figure 2 depicts counties in which services have been provided. The Program’s rate of service has grown each year from just under 2,000 patient contacts in 1998, to over 3,000 patient contacts in 2004. It is noteworthy that, in addition to providing these more formalized 50-minute sessions, BHC clinicians at all of the Program’s sites frequently provide impromptu brief contacts with patients attending primary care visits with their physician, as needed.

Services are currently provided for a wide range of problems. These include “traditional” mental health diagnoses such as disruptive behaviors, ADHD, academic problems, learning disabilities, autism, developmental delays, anxiety, and depression. In addition, however, the clinics receive many referrals for pediatric-specific concerns such as feeding, sleeping, toileting, medical adherence, and pain management. A brief, practical, active, and empirically-supported treatment is individualized for each referral, with patients attending an average of 5-6 sessions including their initial intake.

An analysis of demographic information from 1998-2005 shows the average age of children/adolescents presenting for services was 8.56 (range 0.67-19.58 years) and 65% were male. Family ethnicity, available for 48.3% of the sample, shows a majority were Caucasian (91%). All families had some form of insurance, with 40.7% insured through the Medicaid plan. Data for approximately half the sample show that about 50% travel from outside the town in which the primary care and BHC are located, with the average distance traveled about 20 miles each way. Thus, like the medical services offered in these rural primary care clinics, the BHC services reach far into underserved counties around the state (see Figure 2).
Training and Retention

A second, equally emphasized mission of the Pediatric Behavioral Outreach Program is to train and retain qualified providers for rural service. In fact, it is this focus that has enabled the Program’s rapid growth. In its first years, BHCs were operated by two MMI Psychology faculty members who traveled to distant clinics weekly. The Program quickly established a training component by incorporating pre-doctoral interns from its American Psychological Association-approved Predoctoral Internship Program in pediatric psychology. Graduating interns with experience and interest in the outreach clinics became postdoctoral fellows at these sites and, eventually, located to rural communities as full-time MMI faculty in charge of all clinic operations. As the program gained an increasingly favorable reputation within the State, graduate students from rural Nebraska sought internships and postdoctoral training to enable them to “set up” clinics in their hometowns.

At present, all but one of the BHC clinicians are employees of MMI. BHC clinicians are composed of one Licensed Mental Health Practitioner (LMHP; masters-level clinician), three post-doctoral fellows (provisionally licensed psychologists) and five faculty members at the Assistant/Associate Professor level. In most cases, clinician salary is supported by clinical service revenue generation, though in some cases federal training grants pay a portion of their salary. This business model has enabled the Pediatric Behavioral Health Outreach Program to grow by 1-2 clinics per year over the past 9 years.

Since July 2001, the program has helped train 79 trainees in a variety of fields: psychiatric nurse specialists, social work students, marriage and family therapy students, undergraduate psychology students, masters counseling/school psychology students, predoctoral interns, and postdoctoral fellows. Training for advanced students consists of a six-month
(interns) to one-year (fellows) experience at one primary care site, using a graduated model of supervision including observation of both primary care physicians (8-10 hours) and behavioral health providers (approximately the first third of rotation) followed by co-therapy with the supervisor, and, eventually, closely supervised independence in patient treatment as well as physician collaboration. While the thrust of training is direct clinic experience, a standard set of readings regarding empirically-supported interventions for the most common presenting problems is required as well as attendance at monthly team meetings.

Data from the program shows 54% of its trainees work in rural areas after graduation. Moreover, 13 of the 14 BHCs are staffed and directed by a graduate of the program’s training program. As described above, all but one of these individuals are employees of MMI (UNMC). Clinicians are given the option, however, to transition to a private practice (contracting with the primary care practice), to become an employee or partner in the primary care practice, or to make any other arrangement they feel would benefit them personally or professionally.

In fact, this has occurred twice in the program’s history. One former BHC clinician joined a private behavioral health practice and has continued his work at the rural primary care site under this arrangement since 2000. This clinician did not maintain a connection to this program (that clinic is not one of the 14 BHCs), however it is still a “success story” in that it continues to serve many rural families. More recently, in 2004, one BHC clinician transitioned to employment by the rural, privately-owned pediatric primary care office at which she was providing services. To accomplish this task, the Program worked with the primary care office manager to assist with incorporating paneling, billing, and other “novel” protocols for mental health services into the primary care setting. The Program is in the process of standardizing this
training model for primary care office staff as it prepares to transition additional BHC clinicians to employment within their home primary care clinics.

Critical to the sustainability of the Pediatric Behavioral Health Outreach Program is the ongoing support of BHC clinicians in rural areas. To this end, the Program has engaged a variety of tactics. First, the clinician who has “moved” to employment within her own primary care practice has been provided adjunct faculty status and the Program has maintained a small FTE (5%) in supplemental income for her to justify her time spent maintaining involvement with the Program.

Second, the Program regularly elicits assistance in administrative, training, research, or public relations activities from outreach BHC clinicians. These clinicians report a greater sense of “buy in” to the program given this kind of involvement. For example, the Program has gained a number of federally funded training grants, allowing many of the BHC clinicians to offer paid practicum/internship experiences to local university students or students rotating to outreach sites from MMI.

A third support offered to BHC outreach clinicians and their students are regularly-scheduled monthly meetings held by video teleconferencing. Meeting topics and schedules are announced six months in advance and typically include an administrative component (i.e., scheduling, billing, insurance information), a research/grant update including a brief (30-minute) presentation regarding an ongoing project, and a clinical component (about 60 minutes). The clinical segment varies and may include a topic oriented to trainees (e.g., recurring topics such as ADHD in primary care or working with primary care physicians), a new topic (presenters from a wide range of clinical expertise who discuss their content area with a primary care or rural
“angle”), or a roundtable discussion regarding a “hot topic” for rural BHC clinicians (e.g., ethical dilemmas such as dual-role relationships, lack of resources for referral, etc.).

Finally, the Program works to identify additional supports that may be individualized to a particular clinician or setting. This often includes regularly-scheduled telephone or two-way video meetings with a BHC clinician and the project director to address questions or concerns. Other examples include assisting with obtaining grant support for that clinician to engage a local service project, reimbursing clinicians for community-based presentations (including brown-bag informational talks with continuing medical education credits to primary care staff), providing equipment (e.g., the program purchased a set of testing equipment which can be requested and shipped to sites as needed), providing clinic coverage (e.g., during maternity leave), and providing release time for clinicians to teach university courses. One additional example of support is including outreach BHC clinicians on academic projects. In fact, two of the authors for the present paper are BHC clinicians living in rural communities.

Conclusions

The Pediatric Behavioral Health Outreach Clinics have been providing behavioral health outpatient services in collaboration with various primary care practices around Nebraska since 1997. The model employed by MMI’s Department of Pediatric Psychology has been a success in the sense that over time there has been increasing interest in the Program by students and physicians, creating opportunities for expansion and a greater “reach” to underserved populations. Moreover, the program has served as a model for the state as it has ventured to increase community-based care.
Insights and Future Directions

Future directions

Future directions for the program are three-fold. First, there are still a number of pediatric practices around the state too distant from ongoing BHCs to utilize services in those settings. Thus, the program aims to train students and assist in gaining them placement into those communities. In conjunction with this goal, the program continues to develop its Pediatric Behavioral Telehealth Clinic, established in 2004. This clinic has served almost 50 families to date, and can access remote communities where it is not likely a BHC may ever be established (i.e., large “frontier counties” with populations of less than six people per square mile). Ultimately the program aims to provide every rural Nebraskan with ready access to specialty pediatric behavioral health care.

A second goal is to develop specialized programming within the BHCs in a manner that addresses community-specific concerns. For example, the program identified a pressing need for support services for parents interested in helping their child’s academic progress. In a specially-developed, grant-funded project, BHC staff developed and conducted an 8-week workshop for parents of children in Special Education in two rural communities. Another example is the need for increased services for Hispanic families in some rural communities, many of whom do not access services in private primary care practices because they do not speak English and/or do not carry health insurance. The program is currently developing supplemental programming to address this special population.

A final goal is to develop a research infrastructure to complement the well-developed system of BHCs. Indeed, this program provides a robust source of data for ongoing research into
behavioral health issues in primary care as well as the collaborative model. To date, faculty and students have presented over 25 papers and have published four empirical papers based upon data derived from this work. This is an important point because, despite increasing interest in the collaborative model there have been few well-designed studies examining the utility of this model, patient outcomes, and effects on professionals. In addition, as discussed above, there have been a number of variations on proposed collaborative models, however, no studies have compared the effectiveness of various types of models.

Insights

A number of insights regarding the development of such a program may be illuminated. First, it has been critical to the success (and expansion) of this program that providers be recruited to move to and live in the rural community they serve. During the first years of this program, clinicians commuted 93-132 miles one-way to rural primary care sites, seeing patients, staying the night, and continuing a second day. It became clear fairly quickly that this was grossly inadequate in meeting the patient demand within the practice as well as the larger needs of the community. Moreover, to some extent, local organizations viewed commuters as “outsiders” and were less willing to involve them in the important aspects of community life. Today, rural BHC clinicians, a part of the community’s medical community, are seen as local experts on a variety of child and adolescent topics and are invited to provide professional/parent training, teach college courses, and serve on boards. They provide a more comprehensive and stable service to the primary care practice as they are available for greater periods and do not need to cancel in bad weather.

A second insight is with regard to physicians’ receptiveness to the BHCs. In fact, without “advertisement,” a number of primary care practices within the state have expressed an interest
in collaborative work with the Pediatric Behavioral Health Outreach Program. In some cases, particularly in the first BHCs, clinic staff had personal relationships with primary care physicians via the traveling Genetics Clinic described above. In many other cases, however, primary care staff responded enthusiastically in response to a written letter of introduction from BHC staff or after having heard about another BHC. In a few cases, students interested in starting a clinic in their hometown had acquaintances within the practice to provide a starting point. One important component of “selling” the BHC at a new site has been an emphasis on the wide variety of functions performed by program staff (both clinically and administratively) in comparison to the small demand placed on the practice (e.g., no need for an assigned nurse, use of only one clinic room, minimal need for administrative support).

Third, it has been the experience of this program that a screening device or other measure for assisting physicians in making appropriate referrals to the BHC is not necessary. Rather, it appears that when physicians have easy access to a referral source they trust, they make enough appropriate referrals to keep clinicians busy and even generate BHC waiting lists of 30 or more patients. In some BHCs, this process happens quite quickly; at one BHC there were over 80 patients waiting before the clinicians’ first day on site and the list remained at 30 or more for several years. At this site it was necessary for us to develop a short referral form including patient level of functioning, parent stress, and length of time on waiting list. These factors were each associated with a numerical score allowing the on-site coordinator to prioritize patients effectively.

Other BHCs have experienced a slower start-up, particularly in family-practice settings where there are fewer children/adolescents with a need for this kind of specialty care. In these cases, we have employed a variety of informal tactics to increase our visibility including verbally
reinforcing physicians’ referrals, engaging in frequent (but not too frequent!) hallway consultations, and providing short (less than 5 minutes) talks about kinds of referrals at practice meetings. In addition, the program has the ability to provide continuing medical education credits through UNMC. Thus, BHC providers hold brown-bag training programs for physicians and staff on a regular basis. In this setting, primary care staff benefit from being able to select a topic of interest to them and the convenience of attending on-site. BHC providers design the talks to be brief (30 minutes or less) and practical, but also to include education about appropriate referrals.

As discussed above, all but one of the BHC clinicians are currently employees of the Department of Pediatric Psychology, MMI, however, the program has kept employment options “open” to practitioners’ preference. In two cases, clinicians have opted to practice privately, one with an independent behavioral health practice (and continuing at the primary care) and the other with the practice in which she provides services. This openness provides practitioners increased control over their income and the extent to which they are integrated into the primary care practice.

For doctoral-level practitioners, however, transitioning to private practice (whether their own or another) is a particular challenge during the first two years after they are awarded their degree due to licensure requirements (i.e., need for supervision) and the subsequent process of paneling with insurance companies. For this reason, students are generally choosing to complete postdoctoral fellowships and at least a few years as faculty with MMI while directing their outreach clinic before entertaining other employment options. Hence, the program provides a nice foundation for new practitioners from which to transition, if desired.
Of course, the addition of new clinicians to the program each year has implications for the demand on the program’s administrative infrastructure. More clinicians translate to more support staff, more rent, travel, and tax on other mechanisms. There are a variety of creative options for handling this kind of growth, which may be dictated by the “corporate philosophy” in a given setting. In this program, the number of MMI-paid clinicians has reached “full capacity” in that it would be difficult to continue to increase positions without an investment in greater administrative infrastructure. Presently, however, at least two BHC clinicians have recently completed the licensure/paneling process and are planning to transition to employment within their primary care practice setting. This transition will make available positions for upcoming practitioners, interested in establishing new sites.

Conclusions

A model for increasing the quality of behavioral health care in pediatric primary care is sorely needed. Collaborative practice has significant promise, with apparent advantages to physicians, patients, and behavioral health professionals. The Munroe-Meyer Institute Department of Pediatric Psychology has actively engaged such a model for the past nine years, and currently serves families in fourteen sites with ten in rural, mental health professions shortage areas. Moreover, the Pediatric Behavioral Outreach Program has demonstrated success, as evidenced by its growth and increasing interest and support from the state. This success is due, at least in part, to its support (training and fiscal) in transitioning to and maintaining new providers in rural communities, not only to practice but also to live. In addition, the program has employed a variety of creative mechanisms to increase referrals when needed, and keep clinicians satisfied with their employment arrangement.
For more information about the Pediatric Behavioral Health Outreach Clinics, please contact Dr. Joseph Evans in the Department of Pediatric Psychology, Munroe-Meyer Institute for Genetics and Rehabilitation, University of Nebraska Medical Center, http://www.unmc.edu/mmi/.
References


Figure Captions

*Figure 1.* Pediatric Behavioral Health Outreach Clinics, 2006

*Figure 2.* Nebraska counties served by the Pediatric Behavioral Health Outreach Clinics, 1997-2006