The University of Hawai'i Rural Health Collaboration: Partnerships to Provide Adult Telepsychiatry Services

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To address the twofold problem of mental health disparities and limited access to health resources in rural areas, the University of Hawai'i Rural Health Collaboration aims to increase access to behavioral health services to rural areas across the state, primarily via telepsychiatry. The authors highlight lessons learned in regard to forging a university-community partnership, specifically community engagement for patient referral, the shift toward integrated services and away from a specialty clinic model, the importance of community diversity and contextual relevance, and ethical research and practice with indigenous communities. (*Psychiatric Services* 61:961–963, 2010)

More than other areas in the health care system, mental health care has significant disparities in service access and availability (1). The President's New Freedom Commission on Mental Health (2) outlined these concerns: many people with mental illnesses go untreated, stigma can keep people from receiving the care they need, suicidality presents serious challenges to providing adequate services, better coordination is needed between mental health care and primary health care, financial issues constrain care, and disjointed service delivery continues.

Twenty-nine percent of the people in Hawai'i, compared with 20% of the U.S. population, live in rural communities. Disparities in rural health services are complicated by Hawai'i's geography, where nearly all islands are medically underserved and experience shortages of health professionals (3). Residents of rural Hawai'i suffer disproportionately from poor health outcomes and chronic conditions, such as diabetes, heart disease (4,5), and mental health issues, such as suicide and depression (6).

University of Hawai'i Rural Health Collaboration

The Department of Psychiatry established the University of Hawai'i Rural Health Collaboration (UHRHC) (7) to increase rural access to behavioral health services across the state, primarily via telepsychiatry. The UHRHC has partnered with community health clinics on the islands of Maui, Molokai, and Hawai'i. Direct patient care and consultation-liaison services are provided through two modalities: face to face and via videoteleconferencing. Services are provided to children, adolescents, and adults. The UHRHC uses a service-learning approach to workforce development, which allows universities to contribute to improved public health through structured trainee experiences in community settings. Such settings include publicly funded clinics, such as federally qualified rural community health centers and the State of Hawai'i Department of Health, and private clinics that receive referrals via public and nonprofit institutions, such as from the State of Hawai'i Adult Mental Health Services.

Our lessons are based on both anecdotal and empirical analyses from one of our adult specialty clinics. Not only is this information critical for improving services, it also is shaping community partnerships.

Initial community engagement

Before providing psychiatric services in a rural community (unnamed to protect confidentiality), the attending psychiatrist met with key stakeholders, such as mental health providers, case managers, and hospital personnel, to inform the development of the specialty clinic. This specialty clinic initially was conceived of as a freestanding psychiatric clinic colocated with but separate from the health clinic in which it is housed. The specialty clinic also offers care in cardiology and veterans' care, for example.

In addition to conducting an informal needs assessment of existing resources within the community, we wanted to assure stakeholders of our genuine interest in providing a service in their rural locale. This is an inherent concern of communities that engage

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with academic institutions because these institutions not only provide clinical services but also involve trainees (psychiatry fellows) in service delivery and conduct mental health research. We wanted to address community concerns about training and research, particularly because we were proposing to use a new technology in providing care—telemedicine. Finally, as in most of rural Hawai'i, a majority of residents in this community are Native Hawaiian, the indigenous people of the Hawaiian Islands. Like other indigenous populations in the United States and around the world, Native Hawaiians have a history of being affected by colonialism and are aware of the potential for ethical breaches in medical and research practices, so assurance and clarity of our purpose and practice were key.

Start-up phase of a rural psychiatric service

To fully understand the community's clinical issues, we conducted a small study of all psychiatric patients who were referred to a single rural psychiatric specialty clinic. Most patients had not received previous psychiatric care. The clinic was established in September 2006, so the study period represents the start-up phase of our nascent rural telehealth collaboration.

We conducted a retrospective medical record review using existing patient records. We received study approval from the Committee on Human Subjects at the University of Hawai'i and the Research and Institutional Review Committee of the Queen's Medical Center.

Data were collected on referral source, demographic information, service encounter, patients' primary diagnoses (*ICD-9* code), and medications prescribed. During the ten-month study period, 39 patients were referred to the telepsychiatry specialty clinic from various sources, including a community health center, local hospital, private practice primary care provider, Native Hawaiian health care system, self or family, or off-island clinic. Of these patients, 18% (N=7) did not show up for their scheduled appointment and were excluded from these analyses. A total of 32 patients participated in the specialty clinic services. Just over half of the clients were women (N=17, 53%). Patients' ages ranged from 19 to 86, and over 60% (N=19) were aged 50 or older. These patients were ethnoculturally diverse, although not representative of the State of Hawai'i's population: white or Euro-American (47%, N=15), Hawaiian (34%, N=11), Filipino-American (6%, N=2), other or undisclosed race-ethnicity (13%, N=4).

In the ten-month start-up period, 61 psychiatric service encounters were provided, of which 10% (N=6) were delivered via the videoteleconferencing technology and 90% (N=55) were face-to-face encounters at the rural specialty clinic site. Of the 32 patients, 16% (N=5) received one or more encounters via the videoteleconferencing modality. Services were scheduled primarily for the purpose of initial evaluations for eligibility for psychiatric services, second-opinion diagnoses, and medication monitoring. Clients had various primary diagnoses, most of which included depression (44%, N=14), substance use disorders (25%, N=8), schizoaffective disorders (19%, N=6), bipolar disorder (16%, N=5), posttraumatic stress disorder (9%, N=3), attention-deficit disorder or attention-deficit hyperactivity disorder (9%, N=3), and other diagnoses (22%, N=7). Medications were prescribed to 81% (N=26) of clients.

Discussion and lessons learned

A goal of this service system research was to inform the UHRHC organizational development regarding capacity to provide mental health services in a rural community. Results indicate that this rural clinic has the potential to provide a variety of diagnostic and medication management opportunities, which is an essential aspect of academic psychiatry for the purpose of education and training. However, these analyses and other insights have provided several lessons as we refine and expand the UHRHC.

Community engagement and patient referral

A majority of referred patients participated in only a single psychiatric service encounter, which is therefore of limited educational value in terms of sustainability and optimal patient care in a rural community. It is important to note that these data were collected during the start-up phase and that ongoing face-to-face collaboration with community partners has yielded additional referral sources that have added to patient diversity (diagnostic, forensic, and ethnic). In fact, the process of community engagement was critical to cultivating referral sources, such as via monthly collaborative meetings. Two key community partners, who are psychologists at community health centers, referred a significant number of their patients for assessment and collaborative care. Subsequently, other referral sources developed, including a majority of primary care physicians in the community, as well as community leaders in criminal justice. It is expected that with more formal community-campus partnerships, a sustainable psychiatric service will evolve to be more inclusive of the larger community and thus improve patient retention.

Specialty clinic expanded to integrated service approach

Although the specialty clinic meets workforce development needs for resident training, a more viable model of training and service delivery would be an integrated rather than colocated approach. Integrated services will maximize clinical, technical, logistical, and research aspects of providing rural telehealth care and can add to the emerging national practice guidelines in telepsychiatry (8). Therefore, recent partnerships with federally qualified and other rural community health centers have been initiated, which will enable service delivery to a larger number of underserved and minority populations. This partnership will include staffing the program with telehealth coordinators at the urban hub and rural patient site to increase patient retention and improve communication with referral sources.

Community diversity and contextual relevance

Based on our findings from the start-up phase, future program development and research will make ethnocultural and diagnostic diversity a top priority to benefit patient engagement and workforce training and development. One objective is to improve cul-

turally competent care for persons from underserved and minority populations, who may be reluctant to seek formal mental health care. An integrated model will result in psychiatric care that reaches a patient population that is representative of respective rural community demographic characteristics. This is critical in Hawai'i and perhaps in other regions of the country that are centers of ethnocultural diversity. For example, nearly half of the patients served during the study period were classified as Euro-American; however, the State of Hawai'i comprises mainly nonwhites (70%), half of whom are of Asian and Pacific ancestry (50%) (9). Our emerging integrated care model is expected to mitigate this problem.

Research ethics with indigenous communities

As an academic institution the University of Hawai'i advocates the use of data to inform practice. Therefore, among many lessons, our Department of Psychiatry is learning to embrace concepts of community-engaged research and practice (10–12), in particular ethical considerations in working with Native Hawaiian communities (13,14). There are critical considerations for research ethics when academic institutions partner with indigenous communities, given the legacy of disenfranchising the research participants (15).

A main consideration is whether to identify the specific community, partner organizations, or both by name because mental illness may be stigmatizing to individuals, to schools and other institutions, and to the community at large. Ideally, such considerations are made at the outset of research and practice (10–12,16). Our subsequent community-engaged work has included and will continue to include open discussion of the effects of stigma and the importance of using principles of practice in community-academic partnerships (10), including when to identify (or not) the community.

As we scale up our telepsychiatric services and rural access to mental health collaborations, we are building research and practice components that are negotiated and designed with our partners. We feel this is one of the more fundamental lessons for academic-community partnerships. Not only are quality assurance and service evaluation important to ensure that the highest-quality care is delivered in a cost-effective and sustainable manner, but also formalizing research, evaluation, and practice agreements can facilitate an equitable approach to organizational and partnership development in both the community and university.

Conclusions

Our telehealth approach to eliminating rural mental health disparities began organically, with two attending psychiatrists committed to serving rural populations. Through their intuitive use of principles of practice in community participation in health, one psychiatrist has established and maintained a rural psychiatry specialty clinic for several years. Through needs assessments and by seeking patient referrals, the foundation for community collaboration was formed. As a result, the UHRHC has moved to a model in which telepsychiatry is the dominant service modality, with face-to-face site visits as a supplement and reinforcement. Parallel to these service activities, we conducted medical record reviews to understand the service's strengths and areas for improvement. This was a critical step in our organizational development, because the analyses indicated the need for an integrated service model as opposed to a freestanding specialty clinic. Therefore, we are structuring the UHRHC to become a sustainable integrated service that can meet a community's need for psychiatric services as well as the university's interests in workforce development.

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