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The Rural Hawai'i Behavioral Health Program: Increasing Access to Primary Care Behavioral Health for Native Hawaiians in Rural Settings

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Health care access issues present significant challenges for rural populations and health providers. Psychology can support improved access and quality of rural health services through the development of integrated behavior health programs within primary care settings. This article reviews a clinical training and service delivery program, the Rural Hawai'i Behavioral Health Program, which has evolved in response to the pressing health needs of Native Hawaiians in rural communities. Native Hawaiian cultural factors and components of the primary care model that have supported the development of this program will be reviewed. Program expansion, sustainability, and treatment efficacy research will be discussed.

Keywords: rural, Native Hawaiian, behavioral health, primary care psychology

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The integration of behavioral and medical services within the primary care setting has received considerable attention over the past 2 decades (Gray, Brody, & Johnson, 2005; Haley et al., 1998; James & Folen, 2005; Kent & Gordon, 1997; Patterson, Peek, Heinrich, Bischoff, & Scherger, 2002; Pruitt, Klapow, Epping-Jordan, & Dresselhaus, 1998; Robinson, 1998; Smith, Keefe, & Kendall, 2002). The benefits of this integration have been extensively reviewed from clinical, research, financial, and health care systems perspectives (Groth-Marnat & Edkins, 1996; Kendall, 2002; Kenkel, 2003, 2005; Sammons, 2005). Perhaps the most significant of these benefits lies in the delivery of these integrated services to medically underserved, rural communities where barriers to health care access require immediate and innovative solutions (Fox, Merwin, & Blank, 1995).

The purpose of this article is to (a) describe the access to health care challenges and the health care system in rural Hawai'i; (b) introduce the Rural Hawai'i Behavioral Health Program (RHBHP)[1] that was developed to enhance access to culturally appropriate behavioral health care for Native Hawaiians in medically underserved areas; (c) demonstrate how the RHBHP has incorporated both Native Hawaiian cultural values, beliefs, and practices, and primary care psychology into service delivery and training; and (d) review future directions of the RHBHP.

Health Care Challenges and Service Structure in Hawai'i

Health care challenges in Hawai'i are best understood on multiple levels, which include culture, economics, and geography.

Cultural Level

Hawai'i is perhaps the most ethnoculturally diverse state in the United States where no single ethnic or racial group holds the majority. The population distribution of Hawai'i is as follows: 21.1% Native Hawaiians,[2] 20.3% Japanese, 23.7% Caucasians, 16.8% Filipinos, 5.8% Chinese, and 12.4% various other ethnic groups (e.g., Samoans, Koreans, South East Asians, and Micronesians; Hawai'i State Department of Health, 2003). Hawai'i also has the largest multiracial population in the United States. In addition, the people of Hawai'i are diverse in their acculturation status and include Native people (e.g., Hawaiians), immigrants (e.g., Filipinos and Koreans), and refugees (e.g., Vietnamese and Cambodians; Hawai'i Primary Care Association, 2004). Thus, various ethnic identities and degrees of acculturation (e.g., bicultural, assimilated) exist within and between ethnic groups and across generations within ethnic groups, both of which add to the level of complexity when considering health care status and service delivery systems.

Economics Level

Although rural communities differ widely economically, with people who range from extreme wealth to extreme poverty, one third of individuals living in rural areas in the United States are economically disadvantaged (Wagenfeld, Murray, Mohatt, & DeBruyn, 1994). Large disparities in health, social, and economic status exist among ethnic groups in Hawai'i. For example, Native Hawaiians have among the poorest health status and highest death rates of all ethnic groups in Hawai'i (Johnson, Oyama, LeMarchand, & Wilkens, 2004). Specifically, Native Hawaiians have higher prevalence rates of chronic disease (i.e., obesity, diabetes, cardiovascular disease) and poverty, (i.e., homelessness, government assistance) when compared with Japanese and Chinese, who have lower rates of these conditions and who experience a higher socioeconomic status (Hawai'i State Department of Health, 2003; State of Hawai'i Behavioral Risk Factor Surveillance System, 2003; State of Hawai'i Data Book, 2001). Native Hawaiians are also less likely to have health care coverage or receive routine health care compared with other ethnic groups because of cost (Huff & Kline, 1999; State of Hawai'i Behavioral Risk Factor Surveillance System, 2003).

Such racial, ethnic, and cultural diversity coupled with large health and economic disparities present unique challenges for people in need of health care and for primary care providers, particularly in rural communities with limited resources (Brody & Flor, 1997; Human & Wasem, 1991). For example, poor access to health care among Native Hawaiians can be related to cost, differences in health beliefs, treatment preferences, and/or mistrust of Western treatment modalities and providers. Traditional Native Hawaiian beliefs about illness and healing are not always consistent with that of Western treatment modalities or what is considered legitimate healing practices. In addition, many Native Hawaiians are reluctant to pursue Western modalities because of the historical relationship with Westerners. Thus, services that are not perceived as culturally mindful can go largely unused even if they are the only services available.

Geographical Level

Hawai'i's distinctive geography significantly affects health care delivery. The eight major Hawaiian islands are separated by the ocean and span a distance of 400 miles from Ni'ihau to the island of Hawai'i (also known as the Big Island). The majority of the state's population resides in the City and County of Honolulu, O'ahu (876,156), followed by Big Island County (148,677), Maui County (128,094; which includes Maui, Moloka'i, and Lānai), and Kaua'i County (58,463). The majority of physicians, hospitals, and other health resources are located on O'ahu. Although O'ahu has a larger number of residents who are uninsured, of low-income status, and/or immigrants, the other islands have higher percentages of underserved individuals, fewer resources, and greater access challenges. As is common in rural communities, residents on islands other than O'ahu have limited land access to services, many times through narrow and weathered roads, which become treacherous to travel on during severe weather conditions (Lambert & Hartley, 1998). If residents from rural communities require specialty health care, they endure significant hardships in terms of time and cost to travel to O'ahu. In many cases, these costs are either impossible to assume or present such a hardship to the individual or family that the health care must be refused.

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[1] As of July 2005, the Rural Hawai'i Behavioral Health program has been renamed *Ho'oulu i ke ola*, a Hawaiian phrase that translates to "cultivating health and wellness."

[2] The term *Native Hawaiian* means any individual who has any ancestors who were Natives, prior to 1778, of the area that is now the state of Hawai'i as evidenced by (a) genealogical records, (b) *Kupuna* (elders) or *Kama'aina* (long-term community residents) verification, or (c) birth records of the state of Hawai'i (Casken, 1999).

Health System in Rural Hawai'i

The Community Health Centers (CHCs) and Native Hawaiian Health Care System Clinics (NHHCS) provide the majority of care for Hawai'i's medically underserved. There are 11 CHCs and five NHHCS located on five islands (see Figure 1).

CHCs receive federal Section 330 grants as one aspect of their fiscal operations and provide a wide range of health care services regardless of ability to pay. These services are comprehensive (e.g., physical, mental, social, economic, and educational services) and tailored to fit the needs of the community's medically underserved populations (e.g., Native Hawaiians, other Pacific Islanders, immigrants, homeless, uninsured, and low-income families; DeLeon, Giesting, & Kenkel, 2003; Hawai'i Primary Care Association, 2004).

The Native Hawaiian Health Care Act and the Native Hawaiian Health Care Improvement Act were passed by Congress in 1988 and 1992, respectively. Reauthorized in 2000, these acts formed a three-part health care system to respond to Native Hawaiian health issues: (a) Papa Ola Lōkahi to oversee the administrative, technical, and research activities of the NHHCS; (b) the NHHCS to provide health promotion and disease prevention through community outreach in order to improve Native Hawaiian health—these clinics were also designed to serve as a referring source to the CHCs in order to increase access to direct primary care services for Native Hawaiians; and (c) the Native Hawaiian Health Professions Scholarship Program to increase the number of Native Hawaiian health care providers in medicine, mental health, dental health, social work, and public health who would provide culturally competent services for Native Hawaiians.

RHBHP

It is within the above three-part health care system that the RHBHP was developed and implemented to enhance the integration of culturally appropriate behavioral health services within rural CHCs and NHHCS. The integration attempted to evolve existing programs from a traditional service delivery model to one that would be more responsive to population-based health care service delivery in predominantly Native Hawaiian rural communities. The following sections describe how Native Hawaiian cultural values, beliefs, and practices, in conjunction with primary care psychology, informed RHBHP development, service delivery, and training since its inception in 2000.

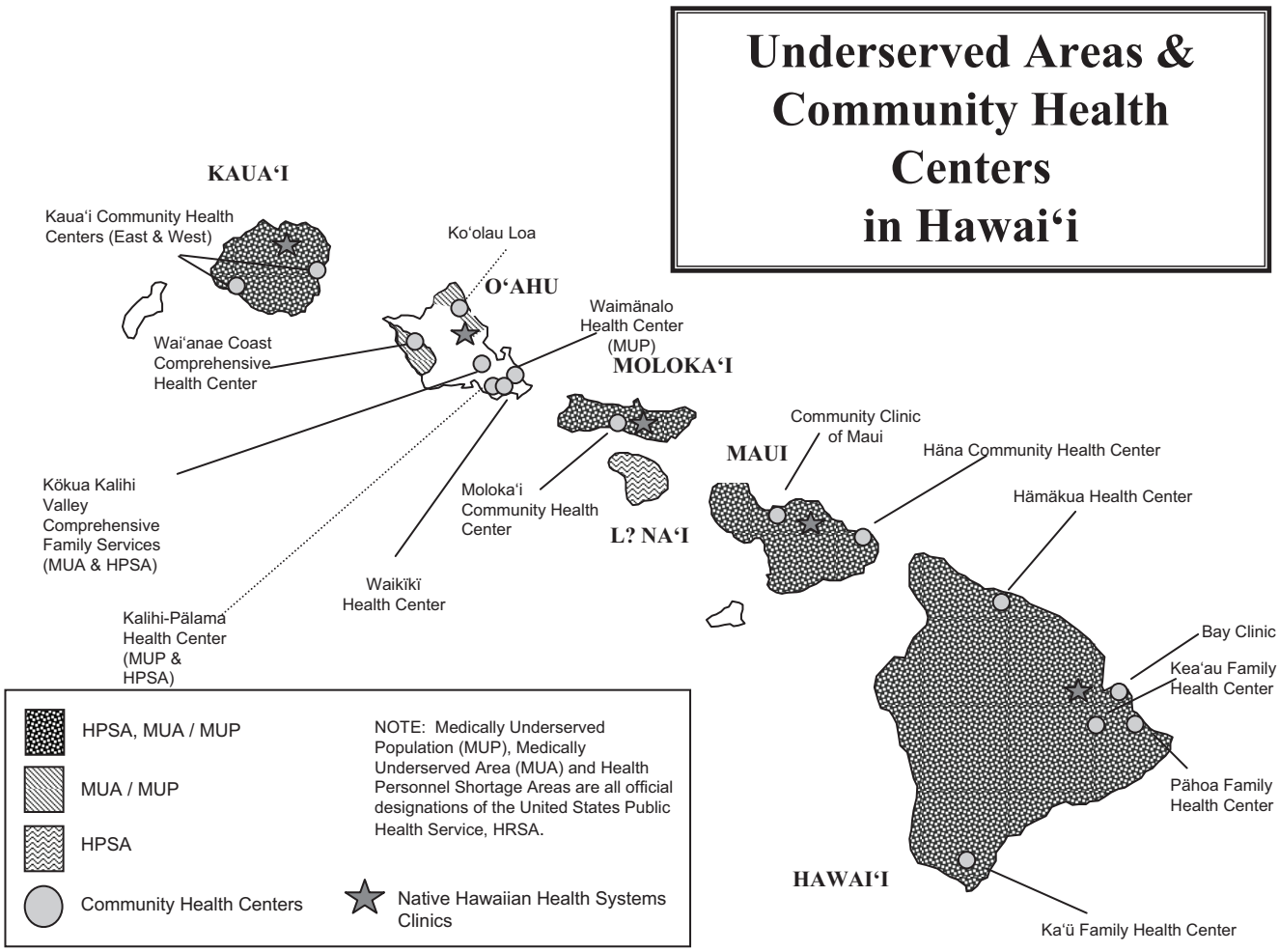

Figure 1. Community Health Centers and Native Hawaiian Health Systems Clinics located throughout the state of Hawai'i.

Native Hawaiian Culture

Native Hawaiians in rural communities are either practicing or becoming reacquainted with traditional Hawaiian culture, values, language, beliefs, and practices. As such, the unique worldview and traditional practices of Native Hawaiians have been incorporated into primary care behavioral health practice to increase the relevance, accessibility, and acceptability of the rural psychology programs. The influence of Native Hawaiian beliefs and practices are woven into all aspects of health care, including community member interactions; needs assessments; problem conceptualization; intervention planning and implementation; recruitment and engagement strategies; program format, content, and processes; treatment rationales; and educational materials. Relevant cultural values, concepts, and practices are incorporated to enhance interest, participation, motivation, and effectiveness of interventions.

Traditional Hawaiian culture emphasizes the value of *'ohana* (family) relations, including respect for and honor of ancestors and elders as well as transmitting cultural knowledge to subsequent generations. *Aloha 'āina* (love for the land) is another central Hawaiian value that reflects the close familial relationship Hawaiians share with their ancestral homeland.

Spirituality and graciousness are important themes throughout Hawaiian cultural beliefs and practices, from the *pule* (prayer) before meals, gatherings, and healing rituals; to the *'oli* (chant), *mele* (song), and *hula* (dance) that honor the *mana* (life energy) in all things; to the offering and sharing of food as a way to connect with their spirituality and other people. Special occasions are marked with spiritual significance and celebrated with great feasts. These values and protocols are particularly important to incorporate into health practices, as they facilitate trust–connection and add a level of reverence and significance to the work that is being undertaken.

The traditional Hawaiian understanding of illness and well-being may also affect the types of interventions that are most acceptable to community members. Community members will first seek treatments for their concerns that are consistent with the causal model of their illness and appropriate treatment modalities. Illness, in the Hawaiian sense, can have a variety of causes to include wrongdoing by the individual or a relative, sorcery, or physical disruption (Pukui, Haertig, & Lee, 1972a, 1972b). As a result, several different types of interventions may be used to resolve an individual's illness, such as *ho'omaika'i* or blessings to protect from sickness or mishap, *pule* or prayer to ancestors or higher powers, *lā'au lapa'au* or healing herbs, *lomilomi* or Hawaiian massage, and *ho'oponopono* or to make right the spirit, mind, body, and personal relationships. Although these techniques are incorporated in some form in CHC behavioral health programs, their use depends largely on the availability of cultural experts at each site. Psychologists in these programs work collaboratively with cultural practitioners and, in some cases, are cultural practitioners themselves. The following are examples of innovative RHBHPs developed within this culturally appropriate, rural behavioral health context:

Example 1

The *Kūko'olau o Mauliola* (Firm Support for a Healthy Life): Health and Wellness Diabetes Management Program was provided through Hāna Community Health Center in collaboration with the Health, Wellness & Family Education Department of Kamehameha Schools; the University of Hawai'i School of Medicine, Department of Native Hawaiian Health—Export Project; and the American Diabetes Association—Hawai'i Chapter. The program curriculum incorporated Hawaiian history, language, values, beliefs, concepts, ethnic identity, and acculturative processes to enhance understanding of the development and management of diabetes. The curriculum was presented in a culturally mindful manner with a comprehensive combination of learning and practice: *Ma ka hana ka 'ike*; *ma ka 'ike ka hana* (In the doing one learns; as a result of learning one practices). The 18-week program required that patients with diabetes attend with family members or friends to support the learning and change processes in the management of their diabetes. The weekly meetings included group exercise routines, meditative walks in the garden–forest area, cultivation of healthy vegetables for meal preparation, demonstration and group preparation of dinner using mainly healthy Hawaiian vegetables in local style meals, *pule* (prayer), eating of dinner together, educational presentation and discussion, and *lomilomi* (massage) demonstration and practice. A grand *pā'ina* (dinner party), with healthy Hawaiian food and live Hawaiian music and *hula* (dance), was provided to celebrate the graduation of group and family members.

Twelve patients with diabetes and their respective support persons successfully completed the program. Through changed eating, exercise, and lifestyle habits, many patients lost weight, lowered hemoglobin A1c levels, and reported improved quality of life. Many have continued with critical monitoring of their medical status through routine health center checkups.

Example 2

The *Pa'ahana* (Industrious Worker) After-School and Summer Program for Teens at the Hāna Community Health Center was designed to promote positive work skills and healthy lifestyles while preventing–reducing drug use and school failure. Hawaiian values–practices were integrated throughout the program. Teens and leaders began and ended each workday with an *'oli* (chant) to honor their homeland and pray for guidance and strength to do what is appropriate. Teens learned how to plant, nurture, harvest, and prepare vegetables—many of which were traditional healthy Hawaiian foods. The teens participated in meaningful community projects including the daily preparation and sharing of meals with *kūpuna* (elders) throughout the community, the cleaning and reparation of *kūpuna* (homes), and the cleaning of the precious land and beaches of their homeland. Special outings incorporated historical and cultural learning and included hikes along the Hāna coast with the telling of *moolelo* (stories of the land and peoples), swims in sacred ponds, and work in the *lo'i* (Hawaiian taro fields) like their ancestors of generations past. Members planned and participated in a *pā'ina* (dinner party) to celebrate their graduation from the program.

The summer program attracted a large group of teens (27; approximately 30% of Hāna's teen population) and maintained a high participation rate (81% successful completion). The completers continued with high school education programs, went on to college, and/or became gainfully employed. There was no reported or confirmed drug use by program graduates. Many participants reported and demonstrated an increased sense of self-awareness, self-confidence, and positive self-concept.

Primary Care Psychology

Various models of primary care behavioral health integration exist and differ by degree of integration and implications for clinical training (Dobmeyer, Rowan, Etherage, & Wilson, 2003; Pisani, Berry, & Goldfarb, 2005; Talen, Fraser, & Cauley, 2005). For example, in developing a primary care psychology service, one may find that the co-located specialty model, behavioral health consultant model, staff advisor model, and/or a combination of

these models may be appropriate (for model descriptions, see Gacthel & Oordt, 2003; Rowan & Runyan, 2005; Strosahl, 2005). The adoption of a co-location specialty model requires less additional training than the behavioral health consultant approach. According to Strosahl (2005), "The general rule is the more traditional and 'mental health-like' the integration program is, the less retraining is needed" (p. 23). However, unless the behavioral health consultation model is also adopted, the larger, population-based health needs of a rural community will not be adequately addressed. Thus, from both a rural setting and primary care service delivery and training perspectives, a broad approach to primary care psychology and behavioral health integration is most applicable and efficient (Oliveira-Berry, 2003; Murray & Kellar, 1991).

The RHBHP seeks to enhance access to culturally appropriate, primary care behavioral health in medically underserved areas using a combined model (i.e., co-location, behavioral health consultation, staff advisor), a stepped-up care approach to service delivery and training (Strosahl, 2005). Within this framework, specific programs have developed across sites that may differ in content and implementation as a function of community values–norms; organizational–systems issues; financial resources; and health care providers needs, preferences, and availability (Altman & Goodman, 2001).

Training in Rural Primary Behavioral Health

Success with integrated behavioral health services in rural primary care and community-based settings requires a broad range of skills that address multiple needs (McIlwraith, Dyck, Holms, Carlson, & Prober, 2005). The RHBHP trains and supervises psychologists across six key areas that ultimately support effective functioning in the rural primary care setting: (a) culturally appropriate service delivery and program development, (b) motivational techniques, (c) systematic observation and monitoring, (d) health psychology and behavioral medicine, (e) behavioral psychopharmacology, and (f) interdisciplinary collaboration. These competency areas have been included in recommendations set forth by the American Psychological Association's Interdivisional Task Force for a Primary Care Curriculum (McDaniel, Belar, Schroeder, Hargrove, & Freeman, 2002) and selected for their specific utility in working with Hawai'i's rural, medically underserved populations.

As described earlier, Native Hawaiian cultural values, beliefs, and practices are firmly imbedded in RHBHP training and service delivery systems. Trainees are provided with didactic, experiential, and clinical training–supervision to maximize successful work with predominantly Native Hawaiian populations in rural settings.

A second key component of training involves the use of motivational techniques to increase the likelihood of health behavior change (Miller & Rollnick, 2002). Patients in the primary care setting are often advised to make changes to their current behavior patterns, including diet, exercise, and medication routines. Despite their understanding of the health benefits of such recommendations, many patients have difficulty following through for various reasons related to competing demands in their lives, lack of information, or long-term versus short-term costs and benefits (Rollnick, Mason, & Butler, 1999). Psychologists are trained to assist patients in managing their medical conditions, providing information where needed, and increasing the chance that change will occur through problem solving and setting realistic goals.

Third, psychologists are trained in the systematic use of observation and scholarly inquiry to establish behavioral, cognitive, and emotional baselines and to track changes over time. These skills are extremely helpful in tracking patient progress and making rapid adjustments to treatment plans in a manner consistent with a primary care approach. Moreover, these skills increase a psychologists' ability to participate in medication management alongside primary care physicians (PCPs) and other health care professionals.

Fourth, to enhance psychologists' ability to effectively collaborate with physicians and other medical health providers, instruction and practice in health psychology and behavioral medicine are incorporated into the training program. RHBHP psychologists are provided training in interpretation of general physical examinations, medical evaluations and clinical labs, medical–behavioral issues, "normal" and pathological health states, and chronic disease management. Additionally, trainees work with interdisciplinary medical treatment teams that can include PCPs as well as physicians who specialize in cardiology, nephrology, endocrinology, and neurology; physician assistants; nurses; and medical social workers. This training and experience make RHBHP psychologists well suited to work with a much larger portion of the primary care patient population than would typically be seen through traditional psychological services.

Fifth, trainees are provided with didactic and practical training in behavioral psychopharmacology to address the large need for this form of treatment across rural areas. RHBHP psychologists collaborate with primary care providers and psychiatrists to recommend and monitor psychotropic medications used by their patients. Primary care psychologists are better able to meet the needs of medically underserved populations if they have acquired extensive psychopharmacology training. Such training facilitates access to immediate treatment that effectively combines psychotropic medication and brief therapy (Gray et al., 2005; Oliveira-Berry, 2003; Strosahl & Sobel, 1996).

Finally, training occurs to enhance psychologists' ability to build relations with and effectively communicate, collaborate, and consult with physicians, nurse practitioners, residents, specialty physicians, community health workers, and traditional healers. Relationship building and effective communication skills are critical to the success of co-location and behavioral health consultation models (Kolbasovsky, Reich, Romano, & Jaramillo, 2005; Lee, Robinson, & Farley, 1999). Supervisors provide direct instruction, modeling, coaching, and feedback to enhance relational, communication, collaboration, and consultation skills. Specific skills acquisition includes the ability to provide clear, concise, and immediate recommendations regarding the assessment and management of behavioral aspects of patient care (i.e., smoking cessation, treatment adherence, exercise, relaxation), follow-up progress reports, and recommendations for treatment changes (Masters, Stillman, Browning, & Davis, 2005; Pruitt et al., 1998).

This extensive training is provided by a team of rural, clinical, community, primary care, behavioral health, and behavioral medicine psychologists in conjunction with other health care providers and federal health care agencies such as Tripler Army Medical Center. Training and supervision, incorporating didactic and experiential learning modes, are provided in rural community and hospital settings. Adjunct telehealth technology is used to ensure quality training and supervision in remote rural areas.

Primary Care Behavioral Health Interventions

Psychologists must provide a range of integrated health services to address the multiple needs of rural communities (DeLeon et al., 2003; Hargrove, 1982; Hargrove & Breazeale, 1993). RHBHP psychologists have been trained to meet the patient at his or her level with an appropriately designed intervention. Interventions include traditional individual treatment and family therapy but also consultation, education, training, support, and program development with medical staff, school personnel, groups, agencies, and communities.

Many people treated in the CHCs present with a wide range of psychological concerns including mood- and anxiety-related disorders, substance use, and thought disorders (DeLeon et al., 2003). In many cases, the mood- and anxiety-related disorders seen in CHCs are secondary to, and the result of, poorly managed chronic medical conditions (e.g., obesity, diabetes mellitus, and physical pain). In addition, psychological problems often co-occur with substance-related disorders (Regier et al., 1993). Given the crystal methamphetamine epidemic in Hawai'i, substance-related disorders, such as amphetamine dependence and abuse, are frequently identified and treated. A significant number of chronic crystal methamphetamine abusers present with a psychotic disorder, even long after the substance abuse has ceased. Other presenting psychological concerns are related to high poverty, abuse, and crime rates in the rural areas. For example, adjustment disorders—related to homelessness or unemployment as well as acute stress and posttraumatic stress disorders related to abuse or being a victim of or witness to a violent crime—are commonly identified problems. The following case example describes the process of developing an individualized, integrated, interdisciplinary intervention with a Native cultural healer, PCP, and psychologist to address multiple psychological issues:

> A 42-year old Native Hawaiian male presents to the *Kahuna Hō'ola* (cultural healer) describing angels who speak to him. These angels spoke of positive things, reminding the patient to make healthy food choices, make his bed, and so forth. He would often share his experience with others and consequently was not able to make or maintain positive social contacts or employment. The patient had previously been served at a traditional mental health center with a diagnosis of drug-induced psychosis with command hallucinations and placed on a trial of antipsychotic medication administered on-site on a daily basis to ensure compliance. Despite this complicated process, there was no change in the patient's symptoms. The patient was homeless, unemployed, receiving welfare, and banned by a restraining order from contact with his children. The cultural healer agreed to treat the patient but requested the inclusion of the RHBHP psychologist and the patient's PCP. Collaboration with the PCP focused on the patient's previous history of crystal methamphetamine use. Although he had been clean for over a year, a single photon emission computed tomography scan was obtained to rule out any organic cause of the voices. To the surprise of the team, the patient's scan was unremarkable for any changes that may have resulted from prolonged substance use. It was hypothesized by the cultural healer that the patient's voices were the result of his cultural beliefs and identification as a Native Hawaiian. The patient continued to work with the cultural healer to develop a greater understanding of his angels, how they had been helpful, and how they had been detrimental. He worked with the psychologist in developing social skills to prevent him from discussing his voices with others who might judge him. He worked with the physician to maintain physical health. During the course of treatment, the patient secured an apartment; regular, unsupervised visitation with his children; and full-time employment as a carpentry foreman. He is no longer dependent on welfare and does not require any psychotropic medications.

Chronic disease management. Chronic disease management has become a buzzword within the field of medicine. Physicians and insurance companies have recognized that patients require a solid support system and treatment plan to successfully manage chronic illnesses, such as diabetes, hypertension, asthma, or chronic pain (Earles, 2005; Gray et al., 2005). Unfortunately, chronic disease management is often a job given to a case manager or social worker, rather than to the patient who is best suited to be the manager of his or her disease. Psychologists assess willingness to engage in behavior change and help to set small, achievable, realistic goals in order to promote patients' empowerment toward becoming their own chronic disease manager. The following case example describes an individual who initially presented with significant psychological symptoms and whose treatment evolved to include chronic disease management:

> A 40-year old Native Hawaiian man presented to the RHBHP psychologist complaining of depression, auditory hallucinations, and suicidal ideation. Subsequent sessions revealed that the patient planned to kill himself on a specific date coinciding with his upcoming trial for drug-related charges, for which he could receive a 20-year jail sentence. The patient was introduced to one of the PCPs for medical clearance. After close collaboration with the PCP, the patient was provided antidepressant and antipsychotic medications along with cognitive–behavioral therapy. Within 2 months, the patient's depression, psychosis, and suicidal ideation remitted. Now released from his rigid thinking and paranoia, he was able to reach a plea agreement with regard to his legal concerns. As a result of a thorough history during the psychological assessment and the psychologist's observation of lower extremity cellulitis, the patient was also screened for diabetes. He was prescribed oral hypoglycemic medication and participated in a collaboratively developed exercise plan. The patient has been walking regularly in his neighborhood and using a treadmill, resulting in a 40-pound weight loss. The combination of medication and exercise has translated to a normal hemoglobin A1c of 6.0%.

Smoking cessation programs. Second-hand smoke is particularly dangerous in the rural communities because many of the patients live in densely populated homes. By targeting individuals with a demonstrated history of nicotine dependence, PCPs and psychologists may be able to prevent the development of many of these chronic illnesses. The combination of psychopharmacological and behavioral health interventions has been shown to be most effective in improving cessation rates and reducing recidivism. This combined intervention has documented a success rate of 30% at 1-year postintervention compared with a 6% success rate when patients attempt to quit on their own (Faue, Folen, James, & Needels, 1997). Smoking cessation protocols within the CHCs can be tailored to the patient or clinic population. The tobacco cessation program on Moloka'i, combining medication management, cognitive–behavioral techniques, and carbon monoxide monitoring, is an example of a group designed to meet clinic population needs:

> The Moloka'i Quit Smoke Program was implemented to address the significant tobacco use and health-related problems that plague these island residents. Primary care providers and community residents identified the need for this program and assisted with initial program development, recruitment, and implementation. The Quit Smoke Pro-

gram is a modification of the Tripler Army Medical Center Tobacco Cessation Program, which has served Hawai'i's military population since 1984. Program modifications to increase cultural relevance include *pule* (prayer) requesting spiritual guidance at the start and end of each group, language changes, didactic content adjustments, and incorporation of familial and community resources to enhance sense of actual and perceived support for Moloka'i residents. Examples of specific cultural modifications included the addition of *'ōlelo no'eau* (Hawaiian proverbs) to exemplify program philosophy and treatment approaches—such as *Pipi ka wahie, ho'onui ka pulupulu* (keep trying until you succeed), *'Olapa ka hoe a ka lawai'a he ino* (difficult to handle is the paddle of the fisherman in a storm), and *He po'i na kai uli, kai ko'o 'a'ohe hina puko'a* (though the sea be deep and rough, the coral rock remains standing)—modifying perceived stressors to include those relevant for life on Moloka'i (i.e., traffic is not a source of stress on Moloka'i, however, maintaining one's privacy and dealing with the damaging effects of gossip can be extremely stressful), and utilizing culturally relevant values (i.e., *'ohana*) to understand individual motivations to make difficult lifestyle changes. The Quit Smoke Program is conducted in an 11-week group format that utilizes medication management, cognitive–behavioral/behavioral modification, and carbon monoxide monitoring. Since 2002, a total of five groups have been conducted, with 26 treatment completers and an approximate 23% success rate.

Weight loss management and healthy lifestyles programs. Mirroring the growing trend found throughout the continental United States, obesity rates are accelerating among Hawai'i's children and adolescents. Weight management and healthy lifestyle programs instituted at the CHCs have been designed to target recent changes in the Native Hawaiian lifestyle. As a group, premissionary Native Hawaiians participated in healthy lifestyles that included a well-balanced diet consisting mainly of fruits, vegetables, and fish and daily physical activity centered around the gathering and preparation of food (Blaisdell, 1993). As the State of Hawai'i has become more industrialized, Native Hawaiians, like all Americans, have adopted a more sedentary lifestyle and a diet consisting primarily of animal fats and highly processed foods. Therefore, weight management and healthy lifestyle have become a focus in regular PCP appointments. Individuals identified as prediabetic by means of glycemic control may be referred to the RHBHP psychologist for assistance in setting self-management goals around weight loss or activity level change. Traditionally, these patients have been red flagged but not actively assisted in preventing the development or slowing the progression of a chronic illness. Recently, the Moloka'i LE^{3}AN (Lifestyle, Expectations, Emotions, Exercise, Attitude, Nutrition) & Healthy Lifestyles Program was implemented to address the lack of focused support groups for individuals struggling with lifestyle changes to effect weight loss (James et al., 1999). The following example describes the development and implementation of this interdisciplinary program:

The RHBHP psychologist at Na Pu'uwai's Native Hawaiian Health Care System was approached by a community member to develop a support group for individuals actively working to lose weight. Na Pu'uwai offered key services needed to create a comprehensive weight loss management program, including a fitness center, PCPs, nurse practitioners, and registered dieticians, however, it had not developed a specific program for weight loss management. The Tripler Army Medical Center's LE^{3}AN & Healthy Lifestyles Program was modified to meet specific community needs. The program includes 10 weeks of didactic and support groups led by the psychologist in conjunction with other health care providers. Topics include nutrition, physical activity, emotions, stress management, successful cognitive–behavioral modification, and relapse prevention. Weight and blood pressure monitoring are conducted each week, and cholesterol, body fat, and cardiovascular–strength–flexibility fitness monitoring are completed pre- and posttreatment. The program is in its 5th week and has maintained treatment compliance from its 8 female members.

Substance abuse programs. Substance abuse rates, particularly methamphetamine use, have risen dramatically in recent years. In Hawai'i, methamphetamine use has reached epidemic proportions, with some agencies calling for a state of emergency to address research and treatment initiatives. The CHCs have placed a priority on substance abuse prevention. Prevention occurs in the form of community-based education, outreach, and the development of individual problem solving, healthy coping, and stress management skills. Some group-based drug prevention programs have been developed for teens (see Pa'ahana program described earlier); more research is required to continue to build on the benefits of these programs.

Future Directions

The RHBHP's principal goal is to increase access to culturally mindful, quality health care to underserved rural communities through the development and expansion of integrated behavioral health programs in Hawai'i primary care settings. As the number of providers and participating clinics grow and the array of integrated health services expands, the number of individuals from rural and medically underserved areas who receive care is increased. The quality and relevance of care is enhanced through ongoing attention to cultural factors in the assessment, development, implementation, and evaluation of services and through research to assist with the identification and improvement of efficacious interventions.

RHBHP has used telehealth technology to expand and advance training, supervision, and service delivery in isolated rural communities. Continued exploration, application, and evaluation of telehealth technology is needed to maximize benefits for rural Hawai'i communities (Folen, James, Verschell, & Earles, 2005; Wood, Miller, Hargrove, 2005).

Another major program goal is the continued development of community-based prevention programs to include pre- and postnatal care and counseling programs targeted at new and at-risk parents, health and wellness programs, and cultural identity development programs that promote cultural awareness, identity, respect, and pride.

The RHBHP also supports recent state efforts to allow for appropriate expansion of psychologist prescriptive authority to enhance quality health care to medically underserved populations. More important, the collaboration between RHBHP psychologists and rural health center executive and medical directors has resulted in the latter providing public and legislative support for psychologists' prescriptive authority in the collective mission to improve health care access in Hawai'i's rural and underserved communities.

Lastly, the program aims to develop more meaningful program evaluation and research protocol(s) to accurately assess the effectiveness of the complex primary care behavior health interventions that integrate cultural, psychological, and medical perspectives.

The data will assist with assessing treatment efficacy, identification of significant service–program components, and ultimately with the development of more effective behavioral health services–programs tailored to the uniqueness of various Hawaiian rural communities.

In summary, the RHBHP has been groundbreaking in terms of its development and successful integration into Hawai'i CHCs and NHHCS. Since its inception, thousands of patients who would have otherwise gone untreated have received relevant health care services in their communities. Rural psychology has the potential to advance service delivery in medically underserved areas by attending to the primary care patient population through integrated behavioral health and appropriate health promotion programs. Through ongoing training, research, and advocacy, and a dedication to serve, psychologists can help overcome monumental barriers to health care access, reduce ethnic minority health care disparities, and enhance quality service delivery in rural areas across the nation.

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