



The Role of Clinical Psychology in Rural Mental Health Services: Defining Problems and Developing Solutions

By: **John Paul Jameson** & Michael B. Blank

Abstract

Rural areas of the United States continue to struggle to provide residents with adequate access to quality mental health care. Problems with adequately defining rurality for research and policy purposes, a shortage of qualified personnel, a lack of integration between primary-care and specialty mental health services, and stigma associated with mental illness have contributed to the mental health service crisis in rural areas. The assertion is made that psychologists can help to alleviate these problems through specialized training for rural service, the utilization of technology for service delivery, the dissemination of empirically supported treatments, and grassroots advocacy. Furthermore, the advantages and disadvantages of prescription privileges for psychologists and the unclear status of sub-doctoral providers are discussed in terms of potential impact on rural areas. Finally, psychologists are encouraged to direct research efforts toward the development and implementation of novel solutions to the service problems in rural areas.

INTRODUCTION

Throughout our history, the United States has enjoyed portraying itself as a rural nation. Our songs speak of the majesty of our mountains and the fruitfulness of our planted plains, our literature relates stories of hardships of farming and the loneliness of the frontier, and our artists give renditions of wide open spaces and the simplicity of country living. Even today, we pride ourselves on our independence and frontier spirit, although only approximately 20% of Americans live in rural areas (United States Bureau of the Census, 2001).

Despite our heritage as a rural society, individuals in rural areas today can be characterized as a vulnerable population. Rural residents are more likely to live in poverty, lack health insurance, report poor health, have a chronic health condition, and be unemployed (see Wagenfeld, 2003, for a review). As a population, rural inhabitants earn less income and include a higher proportion of the elderly. Additionally, rural areas lack the social and health services necessary to accommodate its inhabitants. Services that do exist have been described as fragmented and inconsistent (Fox, Blank, Kane, & Hargrove, 1994). This is especially true of mental health care in rural areas. Empirical research on mental health care in rural areas is scarce, and the research that does exist paints a bleak picture of the available services. Furthermore, research conducted on rural areas, including many of the studies cited in this article, has often been limited to sampling rural areas in one particular geographic region of the country. The generalizability of many studies can be questioned for this reason. That said, the prevalence of mental illness in rural areas does not appear to differ from rates seen in nonrural areas, based on results from the National Comorbidity Study and the Epidemiologic Catchment Area Study (Kessler et al., 1994; Robins

& Reiger, 1991). The purpose of the present article is to provide an overview of the mental health care problems in rural areas, offer suggestions for the amelioration of the problems faced, and help direct future research efforts.

Issues of Definition: What Is Rural?

Defining rurality is an issue that invariably arises in any discussion of rural problems. Wagenfeld (2003, p. 33) described the consideration of definitions of rural as “a surprisingly difficult task.” This task should not be taken lightly: The method by which rural is defined can have far-reaching impact on the application of policy. The definitions of rural most commonly used in research are those supplied by the U.S. Census Bureau, the Office of Management and Budget (OMB), and the United States Department of Agriculture (USDA). All of these methods rely on population as the central metric of determining what is rural and what is not. Each of the definitions has advantages and disadvantages, and none are completely adequate to delineate all areas that most would consider to be rural. Furthermore, there is not complete overlap of areas using these definitions. For example, Ricketts, Johnson-Webb, and Taylor (1998) reported that in 1990, 37.3% of individuals living in OMB-defined non-metropolitan areas were categorized as urban dwellers by the U.S. Census Bureau and 13.8% of individuals in OMB-defined metropolitan areas were defined as rural dwellers by the census.

The USDA (United States Department of Agriculture Economic Research Service, 2003) provides what is probably the most popular method for defining rural among researchers (Blank, Fox, Hargrove, & Turner, 1995; Wagenfeld, Goldsmith, Stiles, & Manderscheid, 1993). The USDA uses urban-rural continuum codes to indicate a county's degree of rurality. The coding scale assigns a designation on a scale of 1 (most urban) to 9 (most rural). Counties coded 1-3 are considered metropolitan, whereas counties coded 4-9 are considered nonmetropolitan. Metro counties are designated based on population; nonmetro counties are designated based on population and proximity to urban areas. There is good reason for its popularity; to an extent, one can infer the influence of urban areas on rural areas using this system, an important consideration when evaluating the availability of mental health services. However, this definition has serious shortcomings as well. Perhaps the most damning

flaw is that codes are assigned at the county level, limiting the ability to precisely demarcate rural areas. This is particularly problematic for large western counties, in which inhabitants can live minutes or hours from a large city and inhabit the same county. An illustrative example of this problem is Coconino County in Arizona. Coconino County contains the city of Flagstaff, and is coded as a 3 (metropolitan county with a population fewer than 250,000). However, residents of the sparsely populated northern reaches of this county must travel 150 miles to Flagstaff!

Established methods of defining rural are plagued by a number of difficulties. Rurality is certainly a continuous variable, and attempts to label it as categorical will probably always be problematic. None of the methods take into consideration the economic base, values, or perceptions of inhabitants as to the rurality of their area. Alternative methods have been derived to take into consideration some of these factors. For example, Hewitt (1989) recommended a categorization system for rural counties that considers counties' economic bases for the study of health care availability, but this method has not gained widespread acceptance by researchers at this point. It is doubtful that a consensus will ever be reached on a definition that fully captures the demographic, cultural, and economic aspects of rurality, but efforts to incorporate these features should be undertaken if research on rural areas is to accurately reflect its subject.

The Services Crisis in Rural Mental Health

One of the most serious issues facing mental health care in rural areas today is the difficulty in recruiting and retaining qualified personnel to provide services to individuals in need. There is a well-established shortage of qualified mental health professionals in rural areas (Goldsmith, Wagenfeld, Manderscheid, & Stiles, 1997). Additionally, the increase of mental health professionals in rural areas was minimal during the 1990s, despite a substantial increase in population. According to a report published by the United States Department of Health and Human Services, nearly three-fourths of counties with populations between 2,500 and 20,000 lack a psychiatrist and approximately half are without a master's-level or doctoral-level social worker or psychologist working in health care and residing within the county (Holzer, Goldsmith, & Ciarlo, 1998). Furthermore,

inpatient facilities are virtually nonexistent in rural communities: Wagenfeld et al. (1993) found that only 13% of nonmetropolitan counties had inpatient facilities, and none of the most rural counties had such services. Although the situation is not quite as bleak with regard to primary-care providers, approximately one-third of counties with a population of less than 2,500 do not have a physician practicing general medicine within their boundaries. Based on this finding, it has been surmised that one-third of the most rural counties lack any health professionals available to address mental health problems, and a much greater percentage of these counties lack any kind of specialty mental health services (Gamm, Stone, & Pittman, 2003). One implication of such shortages is that individuals in need of treatment for mental health problems must travel great distances in order to obtain services. Greater travel distances for mental health and substance abuse treatment have been associated with reduced outpatient visits and increased likelihood of expensive hospitalization (Fortney, Booth, Blow, Bunn, & Cook, 1995; Fortney, Owen, & Clothier, 1999).

Hargrove (1991) has proposed several reasons why clinical psychologists may favor more urban environments for employment and practice. He argues that because of increased specialization in doctoral programs, clinical psychologists are not well prepared to handle the wide scope of clients with a wide range of problems that are encountered in rural areas. Additionally, psychologists in rural areas are often quickly moved to administrative or supervisory roles. This may reduce the attractiveness of rural employment, as individuals in these positions often cease to directly provide services to patients. The reduced patient contact hours may be evaluated as a negative, in that many doctoral-level psychologists may see providing direct care as their primary role. Moreover, mental health care in rural areas is dominated by the public sector, which may have difficulty compensating psychologists at a rate competitive with private urban service providers. As such, social workers increasingly provide services in community service organizations that have been traditionally associated with psychologists. Finally, the argument has been made that the cultural richness that students become accustomed to during their graduate training (especially in larger programs in urban areas) cannot be matched by rural areas. Additionally, DeLeon, Wakefield, and Hagglund (2003) suggest that

job satisfaction may be lower for psychologists in rural areas because of cultural barriers and a lack of respect for their professional judgment, thereby making it difficult to retain their services. All of these reasons may contribute to the general absence of psychologists in rural areas, although we could locate no attempts to systematically study the reasons psychologists tend to be attracted to urban areas.

Individuals residing in rural areas in need of mental health treatment often turn to informal sources of care. These sources include self-help, family, spouses, neighbors, friends, and religious organizations (Blank, Mahmood, Fox, & Guterbock, 2002; Fox, Merwin, & Blank, 1995). However, we have not examined the effectiveness of such interventions (Fox et al., 1995). More research must be conducted to determine whether these informal sources represent an effective alternative to specialty mental health care.

In addition to the shortage of specialty mental health professionals in rural areas, there is evidence that the providers who do practice in rural areas experience very high rates of burnout. In a study conducted by Kee, Johnson, and Hunt (2002), 192 full-time, master's-level licensed professional counselors and licensed master's-level psychologists practicing in nonmetropolitan areas of Kansas completed the Maslach Burnout Inventory (Maslach & Jackson, 1981). Results indicate that 65% of the counselors surveyed experienced at least moderate levels of burnout, indicating a greater degree of burnout than in a normative sample. Emotional exhaustion was the most prevalent form of burnout, with 69.3% of respondents experiencing at least moderate levels. Burnout was predicted by a lack of social integration with other professionals, a lack of guidance and advice from authoritative sources, and the absence of reliable support from others for assistance. These findings suggest a lack of collaborative efforts between mental health professionals in rural areas. This comes as no surprise, given the overall scarcity of professionals in these areas. The opportunities for support among co-workers in rural areas seem to be as rare as the providers themselves. The authors recommend incorporating these issues into training programs. Additionally, the authors advocate creating opportunities for greater peer collaboration and support through retreats and professionally led support groups, but caution that funding is in short supply. As such, programs like these may not be economically feasible.

Lack of Integration With Primary-Care Providers

The integration between primary-care professionals (such as general practice physicians and nurses) and specialty mental healthcare providers is often seen as low in rural areas, and a great deal of research has lent credence to this assertion. Based on findings from Geller (1999), primary-care physicians in rural areas see themselves as playing a larger role in the provision of mental health care than do primary-care physicians in urban areas. However, these findings resulted from a focus group conducted with physicians in the rural Midwest, so their generalizability to other rural primary-care providers is questionable. Research also suggests that rural primary-care practitioners treat more cases of depression without consultation with or referral to a specialty provider than do their urban counterparts (Hartley, Korsen, Bird, & Agger, 1998; Lambert & Agger, 1995). However, these providers acknowledge a number of constraints on their ability to provide mental health services (Hartley et al., 1998). A study of largely rural primary-care practitioners revealed that a majority thought that a lack of knowledge about treatment, a lack of time, patients' refusal of treatment, and the unavailability of a specialist consultant hindered their ability to treat depressed patients at least somewhat. Despite the acknowledgment of these barriers to primary-care treatment, the practitioners also cited several impediments to providing depressed patients with referrals to specialty mental health care providers. A majority of practitioners perceived a lack of available services, the physical distance of specialty services, issues with reimbursement for specialty services, patient unwillingness to use specialty services, and long waits for appointments as moderate or major hindrances to providing services. The willingness of primary-care physicians to treat depressed patients or provide them with referrals was not directly associated with the local supply of specialty mental health providers, but practitioners who were confident in their ability to treat depression were more likely to treat patients. The authors suggest increasing the availability of continuing education programs to improve practitioners' knowledge and competence in the treatment of depression, especially in isolated areas where specialty care may be unavailable. Such programs could be integrated into existing continuing education programs such as Area Health Education Centers.

Additionally, primary-care physicians often seem reluctant to diagnose mental disorders. In a nationwide survey, Rost, Smith, Matthews, and Guise (1994) found that approximately half of physicians in primary-care settings deliberately misdiagnose depression. These physicians cited uncertainty about the diagnosis, problems with reimbursement for services if a diagnosis of depression is given, and fear that the patient may not be able to obtain health insurance in the future as the most common reasons for purposefully misdiagnosing depression. Instead, they often give diagnoses of fatigue/malaise, insomnia, or headache to depressed patients. The authors suggest that the rates of deliberate misdiagnosis found in the study are likely an underestimate of the actual prevalence of this practice because of the survey methods used. In addition to the moral and ethical questions that this common practice raises, there may be implications for treatment as well. Patients receiving an alternative diagnosis may be much less likely to be referred to a mental health services provider or to seek out specialty treatment, representing a further disconnection between primary-care and specialty mental health services. Furthermore, they may be less likely to receive appropriate prescriptions from their primary-care provider. However, the extent to which misdiagnosis affects treatment seeking and treatment outcome is not known.

Anecdotal evidence also supports the notion that primary-care physicians see the treatment of mental illness as a difficult issue in terms of practicality and maintaining relationships with patients. For example, interviews with six rural physicians in Nebraska yielded several common themes: Depression is common in their practices; depression is often easily recognized, but difficult to diagnose with precision; depression can be treated effectively, but requires the cooperation of the patient to manage; and depression is important to treat, but difficult to manage because of constraints on time and resources (Susman, Crabtree, & Essink, 1995). The apparent recognition of these issues by physicians is important; they may also see a need for increased integration with specialty mental health care. As noted by Lambert and Hartley (1998, p. 966), "Organizations cooperate with each other when it is in their interests to do so." It is certainly in the interests of the populations served by rural physicians and specialty mental health services to have these institutions collaborate to increase the quality of care they receive.

Individual and Social Factors as Barriers to Treatment

Rural dwellers have long been characterized as having a strong sense of community and extended social networks, and rural communities are often seen as places where word travels fast and everybody knows everybody. Although the empirical basis of these beliefs is open to debate, individuals in rural areas often do cite social stigma and lack of privacy as reasons not to seek help for mental distress. Social stigma has been associated with several factors detrimental to the treatment and rehabilitation of the mentally ill. High perceptions of stigma have been associated with low self-esteem and low quality-of-life ratings in seriously mentally ill patients, as well as greater withdrawal from social interactions after treatment (Link, Struening, Neese-Todd, [Asmussen, & Phelan, 2001](#); [Perlick et al., 2001](#); [Rosenfield, 1997](#)). Additionally, stigma has been associated with reduced life satisfaction ([Rosenfield, 1997](#)). Clearly, stigma associated with mental illness plays a significant role in the lives of the mentally ill.

Many studies (but not all) have found social stigma associated with mental illness to be higher in rural areas than in nonrural areas. A survey of adults by Hoyt, Conger, Valde, and Weihs (1997) found higher perceived stigma associated with mental health care in rural areas than in nonrural areas. Furthermore, the degree to which stigma was perceived predicted willingness to seek treatment for mental health problems. Individuals in rural areas also perceive a lack of privacy for primary-care treatment of mental illness ([Fortney et al., 2004](#)). Stigmas associated with mental illness in rural areas have legal consequences as well: A study conducted by [Sullivan and Spritzer \(1997\)](#) indicates that seriously mentally ill individuals residing in rural areas have a greatly inflated chance of being detained without criminal charges while awaiting inpatient treatment. However, not all research suggests that stigma and resulting utilization are worse in rural areas than in nonrural areas. A study of seriously mentally ill patients found that rural patients were more likely to receive treatment and less likely to list stigma as a barrier to treatment than their nonrural counterparts ([Kessler et al., 2001](#)). Deductively, these findings run counter to those of [Dotl and Greenley \(1997\)](#), who found that seriously mentally ill patients in rural areas had greater levels of general pathology and lower involvement in vocational activities. The contrary findings may be due to differences in geographical locations of the sampled

population, as well as small sample sizes of seriously mentally ill patients in rural areas. Furthermore, access to care does not necessarily equate to effective care in rural areas, especially considering the lack of well-trained service providers and adequate healthcare facilities ([Wagenfeld, 2003](#)). Additionally, findings indicate that seriously mentally ill patients tend to migrate from rural areas to medium-size, low-income urban areas ([Dembling, Rovnyak, Mackey, & Blank, 2002](#)). The shifted burden on these urban treatment centers may also account for the low treatment rates in rural areas.

In addition to the social stigma associated with mental illness, rural dwellers often do not recognize the need for treatment. In a large study of rural Southerners, 90% of individuals who screened positive for a mental disorder had not sought treatment one month after receiving the diagnosis and an educational intervention ([Fox, Blank, Berman, & Rovnyak, 1999](#)). This is not due to ignorance of treatment availability: All participants in the study were provided with referrals to nearby services. Of the individuals who screened positive for a disorder and did not seek treatment, approximately 81% reported that they did not feel the need for treatment. Furthermore, of the individuals who screened positive and discussed the screening with a friend or family member, only 13% reported receiving encouragement to seek treatment from the significant other. In fact, the data from this study suggest that individuals who were accompanied by a significant other when they received information about the disorder for which they screened positive were less likely to seek help than those who received this information alone (however, this difference did not reach statistical significance). The finding suggests that the denial of need for treatment may even be reinforced by social contacts in rural areas.

ADDRESSING THE MENTAL HEALTHCARE PROBLEMS OF RURAL AMERICA

Clearly, there is not one answer to the problems of mentally ill individuals living in rural areas. The factors contributing to the plight of these individuals are numerous: The attitudes of rural people, the lack of integration among social institutions, lack of well-trained personnel, and the physical geography of rural areas all play roles as barriers to adequate mental health services. However, the situation is not hopeless. Psychologists are well

positioned to make a significant impact on the problems faced by rural America through clinical work, research, and training. The following section details contributions that can be made by psychologists to help alleviate the mental healthcare difficulties in rural areas.

Training for Rural Service

If the manpower shortage in rural areas is to be successfully addressed, training in graduate school and beyond must be tailored to fit the needs of rural practitioners. Hargrove and Breazeale (1993) have outlined a training model for psychologists who consider these distinct needs. They caution that specialization is not suitable for rural practitioners, as specialized services are rarely sought and practitioners often must treat a wide variety of clients. Therefore, the skills required for general practice should be stressed above specialization in a few disorders or methods of treatment. A second recommendation given by this model is the need for increased administrative training. Administrative training is not provided in many PhD programs despite the high likelihood of doctoral-level psychologists assuming such duties. A third change recommended by this model is the need for increased integration with other healthcare professionals, such as social workers, primary-care physicians, and administrators. The authors recommend teaching trainees to work with and establish relationships with these healthcare professionals to provide more comprehensive care to patients.

The issue of recruiting and retaining psychologists for work in rural areas is also worth examining. Incorporating specialized training for rural work is important, but has little value if trainees cannot be convinced to ply their trade in these needy areas. Paramount to this effort is the need to make positions in rural areas as attractive as possible. Hargrove and Breazeale (1993) have made several recommendations for improving new graduates' perceptions of rural work. First, there is a need to increase practica and internship opportunities in rural areas (Hargrove & Breazeale, 1993; Murray & Keller, 1991). It is believed that internship sites in particular have a great deal of influence on the location of new psychologists' first jobs, and placing individuals in rural internships would increase the likelihood of their working in a rural setting after internship. However, the current shortage of doctoral psychologists in rural areas may greatly hinder

the establishment of new internships and practica. Additionally, Hargrove and Breazeale have recommended the creation of a program similar to the National Health Service Corps to place psychologists in high-need areas. This program uses the incentive of loan repayment to encourage physicians, nurse practitioners, dentists, and physician's assistants to work in areas with inadequate health services. However, there are no demonstrations of the effectiveness of such a program for psychologists.

Hargrove (1991) describes the University of Nebraska-Lincoln Clinical Psychology Training Program as a moderately successful model for training doctoral-level psychologists for rural service in terms of training and job placement. The program offered a rural specialty track, in which coursework, research training, and clinical experience were tailored for individuals interested in rural work. The curriculum included seminars in community psychology and rural communities, the clinical component required that trainees be placed in rural settings and complete a three-month placement in a rural facility, and the research component required that the dissertation topic was relevant to rural issues. Otherwise, the rural track did not differ from the general clinical psychology track. Of the 24 students examined, 33% remained in rural areas after completing the program. Unfortunately, this particular rural training program no longer exists. However, other psychology training programs also have developed a rural specialty, including the University of Mississippi, the University of Wyoming, the University of South Dakota, the University of Iowa, the California School of Professional Psychology at Fresno, and Washington State University (Hargrove & Breazeale, 1993). Still, the schools that provide such a specialty represent a very small proportion of the doctoral training programs in the United States.

Telehealth

The use of new technologies such as broadband Internet and videoconferencing can potentially have a large impact on the delivery of services to rural areas. The term *telehealth* is used to describe the use of communications technology in the educational, clinical, training, administrative, and technological aspects of health care; *telemedicine* is used to describe the aspects of telehealth involved in patient care (Stamm & Peredina, 2000). The methods of telehealth delivery vary widely: Telephone consultations, Web site

access, email, store-and-forward technology, videoconferencing, and virtual reality programs all represent approaches that have been used to varying extents (Stamm, 2003). Interest in the use of telehealth systems in behavioral health care is growing rapidly; at one point, it was estimated that the literature on telehealth was doubling approximately every six months (Stamm, 1998). In fact, telemedicine now has a journal dedicated to the topic (*Journal of Telemedicine and Telecare*, founded in 1995).

Telehealth has the potential to address a number of problems faced by rural caregivers. First, the use of telehealth gives patients in remote areas increased access to services. Assessment, psychotherapy, crisis, intervention, psychoeducation, medication consultations, and case management can be conducted from great distances, often through videoconferencing when economically feasible. Research suggests that patients are generally happy using telehealth services. One study of adults and children in Kentucky reported that 98% of recipients of consultations were at least as satisfied with the remote consultation as with an in-person consultation (Blackmon, Kaak, & Ranseen, 1997). Furthermore, participants reported little discomfort associated with using the videoconferencing equipment.

Researchers also have investigated the attitudes of rural dwellers toward the use of telemedicine. A telephone survey conducted by Rohland, Saleh, Rohrer, and Romitti (2000) found that two-thirds of individuals in rural midwestern communities were willing to receive mental health services through live two-way audio and video transmission. Individuals who were not willing to use the telemedicine approach to treatment most often cited concerns about confidentiality and the impersonal nature of the telemedicine approach. However, the authors caution that the rates of acceptance in this study may overestimate the willingness of rural individuals to use telemedicine for mental health services, because those interviewed were not necessarily in need of services and therefore might be less reluctant to report discomfort utilizing them.

There is a great need for the assessment of telemedicine effectiveness to determine whether it represents a viable alternative to traditional treatment. Many studies are currently underway to help answer this question (Stamm, 2003). One recent randomized control trial compared the effectiveness of medication consultations for depressed patients done in person or through videoconferencing

(Ruskin et al., 2004). Results indicate that both groups improved on measures of depression, and improvement did not differ between groups. Furthermore, dropout rates, medication adherence, and measures of patient satisfaction did not differ between groups. Treatment in the telemedicine condition was found to be more expensive than the in-person condition, but this difference disappeared when costs associated with psychiatrists' travel were considered. However, the patients in this study were located in nonrural areas. The results may not generalize to a rural population. Furthermore, it is not known if similar results would be achieved with psychotherapy.

A particularly interesting telemedicine system in development is the use of computerized therapy programs. Generally, these refer to therapy interventions presented on a computer rather than through face-to-face contact with a therapist. One such program, *Beating the Blues*, has shown substantial promise. The program creates a personalized therapy regimen based on patients' input. Anxious and/or depressed patients in primary care have shown greater improvement than treatment-as-usual in a large randomized control trial (Proudfoot et al., 2002). Furthermore, completion rates were similar to those found in studies of face-to-face therapy. Use of the *Beating the Blues* program has also been well received by professionals in community mental health environments (Van Den Berg, Shapiro, Bickerstaffe, & Cavanagh, 2004). However, this program is not without limitations. First, a physician or mental health professional must be available to give the initial diagnosis and to review the outputs produced by the program after each session (e.g., ratings of suicidal ideation). Second, a dedicated private room is highly preferred for the system, which is problematic for clinics short of space. Third, studies of the program have been conducted primarily with patients residing in urban areas of the United Kingdom; generalization to rural areas of the United States is not assured. Despite these limitations, the development and implementation of programs such as *Beating the Blues* could prove an advantageous extension of telehealth in rural areas.

Additionally, the use of technologies as a supplement to therapy has shown great promise. A study conducted by Newman, Kenardy, Herman, and Barr-Taylor (1997) compared the effectiveness of a four-session computer-assisted cognitive-behavioral therapy (CBT) regimen with

a more traditional 12-session CBT regimen for panic disorder. Individuals assigned to the computer-assisted CBT condition used a palmtop computer loaded with CBT software for 12 weeks and received weekly face-to-face therapy for only the first four weeks. Although patients in the traditional CBT condition were slightly more likely to demonstrate clinically significant change at posttest, these differences disappeared at six-month follow-up. Furthermore, there was no difference between conditions in patient satisfaction. These results have since been replicated in a similar multisite study (Kenardy et al., 2003). While studies of computer-assisted interventions have been limited mainly to the treatment of anxiety disorders, their use for the treatment of other disorders warrants the attention of researchers. There are numerous advantages to using computer-assisted interventions, and these advantages are likely to be especially appreciated in rural areas. First, they appear to be significantly more cost-effective than traditional face-to-face therapy. While clinics wishing to adopt these technologies would certainly incur initial costs of the hardware and software, computer-assisted therapy has been estimated as costing approximately one-third less than 12-session CBT for panic disorder (Kenardy et al., 2003; Newman et al., 1997). Second, the reduced patient contact time may make it possible for clinicians to increase their caseloads without sacrificing quality of care.

An additional advantage of using telehealth systems is the potential increase in professional collaboration among rural mental health professionals. Telehealth systems enable caregivers in isolated areas to interact with other professionals. Interactions include consultations, grand rounds, and supervision. These contacts could be important in keeping rural mental health professionals abreast of developments and issues in the field, increasing the quality of care they are able to offer to their patients through consultations with specialists, and aiding the obtainment of continuing education credits required by most state licensing boards. In addition to these obvious benefits of greater contact with other professionals, the increased integration can potentially help shield caregivers from the high rate of burnout found among mental health professionals in rural areas (Kee et al., 2002).

There are several challenges to the implementation of telehealth in rural areas (Stamm, 2003). The economic feasibility of telemedicine for mental health has been

brought into question (Werner & Anderson, 1998). For example, Stamm (1998) estimates that a videoconferencing unit can range in cost from \$1,000 to \$50,000 with additional costs for technical support and access to communications networks (e.g., Internet service). Considering the proliferation of technology since that writing, it is likely that costs now are much lower. Other researchers have argued that limits in economic resources should not alone determine whether a service that increases access to care should exist (e.g., Chen, Blank, & Worrall, 1999). Furthermore, reimbursement for services provided through telemedicine has not gained total acceptance yet, although that acceptance is growing (Stamm, 2003). The remote care provided by telemedicine systems also raises problems with licensure. Stamm (2003, p. 149) points out the following licensure dilemma: “. . . should the provider of care be licensed in the state from which he or she originates or in the state to which the care goes?” These issues have not yet been adequately addressed by the legal system. A final barrier to the implementation of telehealth systems is the comparatively weak technological infrastructure of rural areas. Many rural areas may not yet be equipped with technologies capable of transmitting the large quantities of data required for use of devices such as videoconferencing units. Although the magnitude of this problem almost certainly decreases as time passes, this may be an issue for years to come, especially in the most sparsely populated areas of the country. Despite these criticisms, telehealth systems seem to hold great promise for increased accessibility and quality of care in rural areas.

The Dissemination of Empirically Supported Treatments to Rural Clinics

The previous sections detail some possible solutions to the mental health service problems of individuals in rural areas. However, they are at best long-term solutions. Changes to training programs or the implementation of telehealth systems are not likely to happen overnight, and the effect of these changes may take years or decades to feel. However, the dissemination of empirically supported treatments (ESTs) to rural clinics may be the most helpful in the short term. A particularly promising application of ESTs to rural clinical practice exists in their utilization in community mental health centers (CMHCs), which have served as the cornerstone of specialty mental health care in rural areas since their

inception. As with telephone lines, cable television, and more recently broadband Internet connections, rural areas are generally among the last to benefit from advances in technology. The lack of published research on the effectiveness of ESTs in rural areas suggests (but does not demonstrate) that the dissemination of ESTs has followed this familiar trend, especially in locally funded organizations. Arguments can be made that the utilization of ESTs in rural CMHCs may have a positive impact on the issues previously described, namely, personnel shortages, lack of integration with primary care, and stigma associated with mental illness.

Although treatment outcome research has yielded therapies that have been shown to be efficacious across multiple studies, researchers have cautioned that the promising results may not readily generalize to clinical settings such as rural CMHCs (Borkovec & Castonguay, 1998; Chambless & Hollon, 1998; Goldfried & Wolfe, 1998; Westen, Novotney, & Thompson-Brenner, 2004). In recent years, however, investigators have made attempts to demonstrate the effectiveness of empirically supported treatments in clinical settings, with some success (e.g., Addis et al., 2004; Wade, Treat, & Stuart, 1998; see Chambless & Ollendick, 2001, for a review). There is good reason for feelings of guarded optimism in response to these studies, as generalization from laboratory findings to clinical practice is a crucial first step in gaining widespread acceptance of these treatments in areas that may need them the most.

As discussed previously, rural areas suffer from a severe shortage of mental healthcare professionals. Therefore, service providers in these areas must adopt strategies to administer effective treatments in a time-efficient manner if they hope to compensate for understaffing and insufficient funding. The characteristics of empirically supported treatments lend themselves to be included in such strategies; they are typically short in course in comparison to more traditional treatment options. Additionally, patients who successfully complete these treatments tend to maintain improvements for substantial periods of time (e.g., Stuart, Treat, & Wade, 2000). If this holds true in rural treatment centers, the so-called revolving door phenomenon may be diminished. Furthermore, empirically based treatments are often manualized in great detail. This feature may lead to effective training in a relatively short period of time with manageable costs.

A second problem that has been identified in rural mental health services is lack of integration with primary care. The successful implementation of ESTs in rural mental health facilities may help to diminish some of the concerns expressed by primary-care providers, thereby increasing integration between primary care and specialty mental health care. Primary-care physicians in rural areas may be more willing to collaborate with specialty mental health service providers if there is an understanding that state-of-the-science treatments are to be employed. Mental health providers who are able to discuss treatment with physicians in terms of expected outcomes and treatment success may overcome some of the cultural differences that have been identified between physicians and therapists (see Bray, Enright, & Rogers, 1997, for a review). Furthermore, primary-care workers may have better success convincing needy patients to seek out these services if they are able to make a compelling argument based on empirical findings.

The social stigma associated with mental disorders is a third obstacle to treatment in rural areas. The perceived stigma, coupled with the lack of encouragement from loved ones to seek out treatment, paints a very bleak picture for individuals in need of help in these areas. However, evidence suggests that clients consider decisions informed by clinical research as a very favorable method for deciding on a treatment strategy (O'Donohue, Fisher, Plaud, & Link, 1989). Despite this evidence, practitioners rarely give a rationale of any kind for the treatment strategies they develop; in cases where a rationale is provided, clinical research is rarely cited (O'Donohue, Curtis, & Fisher, 1985). The ability of practitioners to tell prospective clients that a particular treatment works based on empirical evidence may alleviate some of their concerns. The medical model that serves as the philosophical basis for efficacy trials may also help clients view their problems as being common and treatable rather than a sign of weakness or a personality flaw, therefore reducing the perceived stigma associated with mental disorders.

One of the greatest challenges to the dissemination of ESTs is mental healthcare providers' perception of manualized treatments (Kendall, 2002). Because most ESTs have been manualized, it is important to understand how practitioners feel about using manuals in practice and training. Manuals likely represent the stepping-stone from the development of ESTs to their utilization in

clinical settings, and their use has been recommended to facilitate learning the principles of the treatments ([Moras, 1993](#)). While the use of manuals to improve training has not been well researched, a study by Addis and Krasnow (2000) suggests that attitudes toward the use of treatment manuals in practice among doctoral psychologists are mixed. In their survey, approximately one-third of respondents reported they were not clear or only somewhat clear on what a treatment manual was. Only 6% reported using manuals often or exclusively in their practices, and 47% reported never using manuals at all. Additionally, one-fifth of respondents had negative experiences with manuals; slightly less than half reported neutral experiences, and slightly more than one-third had positive experiences. Interpreting these results in terms of rural practitioners is difficult, as geographic location of the practice was not a variable used in the analysis. A similar study of rural providers would be helpful in designing strategies to make the use of manualized ESTs more palatable in their practices.

The impact of implementing empirically supported treatments in rural CMHCs is potentially profound. ESTs seem particularly well suited for use in areas facing personnel shortages, a lack of integration with other community services, and a hesitant client base. However, initial groundwork must be laid before any significant course of action can be designed, tested, or applied. Furthermore, the input of rural mental health service providers on the front line is essential if any initiative is to succeed in practice. They are uniquely able to provide insight to immediate needs based on the types of patients they see, potential barriers, and financial and structural feasibility of EST implementation. Additionally, providers logically should play the major role in directing future research efforts regarding the dissemination of ESTs to rural settings, because they are the ones who would potentially provide the services. If ESTs are to play a significant role in helping to solve the mental health-care problems faced by rural communities, collaboration between researchers and clinicians is imperative.

The Rural Psychologist as a Grassroots Advocate

The role of the psychologist in the rural community should not be limited to providing patients with treatment and services. Perhaps even more so than their urban counterparts, the rural psychologist should have an active voice

in the community. Psychologists in rural communities have the deck stacked against them: Barriers to quality care are numerous, and suspicion of “shrinks” is high. Psychologists may be seen as stuffy, overly intellectual elitists as well. This perception (right or wrong!) does little to instill a sense of partnership and trust with the community. To be more effective in treating individuals in rural communities, psychologists must effectively combine their role as a mental healthcare provider with their role as concerned community member. This can include reaching out to community leaders such as ministers, school administrators, business owners, and local government officials, as well as community organizations (Rotary Club chapters, chambers of commerce, Kiwanis Club chapters, women’s organizations, state cooperative extension service offices, etc.). Furthermore, education and awareness programs may be designed for the community as a whole. Talks at local schools or community centers may provide community members with access to information that they would not normally receive.

Crucial to these efforts is balancing an air of professionalism with the ability to recognize and relate to the needs of the community and the audience (see [Fox et al., 1994](#), for a thorough discussion). The subject matter of community education and awareness initiatives should be carefully tailored to the segment of the community that they are intended to reach (e.g., a presentation on the impact of the farm crisis on the mental health of farming communities to a cooperative extension service group, or a discussion of the economic impact of depression for a talk at the chamber of commerce; [Kendall, 2002](#)). Additionally, the presentation of scientific data to community groups should be informative and insightful, but care should be taken not to dilute the messages one hopes to convey with unnecessary detail about methodology or statistical analysis. Even manner of dress may impact the effectiveness of such advocacy efforts. Although these considerations seem arbitrary, they may seriously impact the perceptions that rural community members develop of mental health care and its representatives. Cues from the culture of the community should be taken seriously if advocacy efforts are to influence community acceptance. Cultural competence and sensitivity are important considerations if linking the community members to the mental health service system is to be an achievable goal; this includes developing local knowledge, an understanding

of belief systems and values unique to each community (Hill & Fraser, 1995). Furthermore, behavior outside of practice does not go unnoticed in a rural community. Rural individuals may not as readily separate professional behavior from private behavior, and there is often little anonymity.

Rural psychologists must also be prepared to offer services to their patients above and beyond what might be expected of clinicians operating in more populated areas. This may be especially important for seriously mentally ill (SMI) patients. SMI patients in rural areas are less likely to receive case management, day treatment, and home visits from care providers (Sullivan, Jackson, & Spritzer, 1996). Furthermore, rural SMI patients are more likely than urban patients to be jailed without criminal charges while waiting for a bed at an inpatient facility (Sullivan & Spritzer, 1997). Psychologists may wish to enlist family members or spouses to actively participate in treatment in order to help compensate for the lack of services. This may include psychoeducational interventions for family members. While these interventions vary widely in content, they often share similar goals: helping families cope with the illness, improving medication adherence, improving communication between the patient and family, and improving problem solving. Such interventions have been shown to reduce relapse and hospitalization of patients with bipolar disorder, schizophrenia, major depression, and other disorders (see McFarlane, Dixon, Lukens, & Lucksted, 2003, for a review). While most research has examined the effectiveness of family psychoeducation with individual families, success has been seen with multifamily group formats as well (e.g., Dyck, Hendryx, Short, Voss, & McFarlane, 2002), thereby reducing the time commitment necessary to implement such services. Such interventions are necessary to help compensate for the shortage of specialty services (e.g., inpatient facilities) in rural areas.

Ethical concerns often arise in rural practice and advocacy, most notably the existence of dual relationships. Dual relationships seem to be inevitable in small communities where services are limited (Schank & Skovholt, 1997). Overlaps often arise in social relationships, business and professional relationships, relationships among clients (e.g., having more than one member of a family as a client), and psychologists' families (spouse, children, or relatives have social or business relationships with clients). Rural psychologists must use more flexibility in

dealing with these relationships than their urban counterparts if life is to be tolerable. However, it is not uncommon for rural professionals to experience discomfort in maintaining a professional relationship while managing a secondary one. Campbell and Gordon (2003) outline several guidelines for avoiding negative outcomes resulting from dual relationships: Imagine the worst-case scenario when deciding if a dual relationship is potentially harmful; set clear expectations and boundaries with clients in as many areas as possible; consult often with other professionals to avoid subjective oversight; maintain clients' confidentiality at all costs; and terminate multiple relationships as soon as possible. Additionally, Schank and Skovholt (1997) suggest developing a very clear understanding of state laws and codes governing ethical behavior before starting practice and maintaining a fulfilling life outside of practice to prevent exploitation of clients as strategies that can prevent the negative outcomes that dual relationships can foster.

The Prescription Privileges Controversy: Increasing Access or Decreasing Comprehensive Care?

The notion of giving prescription privileges to psychologists has been the subject of heated debate in the field (see Heiby, 2002, for a review). Although the following section is not an attempt to thoroughly rehash the advantages and disadvantages of the existence of prescribing psychologists, this highly controversial issue is worth considering in the context of rural mental health care. Arguments can be made that giving psychologists prescription privileges could either help or hinder rural dwellers in need of treatment. The issue is certainly complex, and there is no clear evidence that provides a strong empirical basis for either position. Three questions should be kept in mind when considering the impact on rural areas: (a) Would giving psychologists license to write prescriptions improve access to mental health services, (b) Would giving psychologists license to write prescriptions improve the quality of care available, and (c) Would the impact of prescription privileges on access and quality differ between a short-term perspective and a long-term perspective?

Proponents of prescription privileges for psychologists often argue that this change reflects the changing role of psychology as a healthcare field (Norfleet, 2002). Psychologists have recently assumed an increasingly central

role in hospital settings, and often consult with psychiatrists and other physicians regarding medications. This requires at least a working knowledge of medications. Furthermore, there is a belief that prescription privileges are necessary for the survival of clinical psychology in the managed care era. Proponents suggest that third-party reimbursement for the treatment for mental disorders is increasingly limited to drug therapy.

A major fear among opponents to prescription privileges for psychologists seems to be that the psychologists will turn into a group of low-rent psychiatrists. That is, psychology practice will trade in the behavioral interventions, psychosocial treatments, and talking cures that have become trademarks of the profession for 15 minute medication consultations and a strict biological perspective of mental disorders (Albee, 2002). In recognition of the declining incomes of many psychologists, they suggest that practicing psychotherapists move away from private practice and into other areas such as the public sector. Furthermore, critics wonder what current coursework and practica requirements will be displaced by psychopharmacology training in graduate programs.

Although no data are currently available on the long-term impact of prescription privileges on the rural population, a discussion of the possible outcomes based on past professional trends might prove useful. First, it is questionable that rural areas would attract prescribing psychologists for the same reasons that they do not currently attract doctoral-level psychologists and psychiatrists. Furthermore, considering that many doctoral-level psychologists in rural areas work in administrative roles, it is not certain that they would play a more significant role in treatment if they prescribed. Second, individuals with mental disorders generally seek help from their primary-care providers at least initially. Therefore, they initially access a professional with the ability to prescribe medications. From a patient's perspective, it might be difficult to justify seeking treatment from a second professional who would provide the same services as the family doctor. Psychologists currently offer a unique product in mental health care; it is difficult to anticipate the reaction of the consumer if this product were replaced with one that could be obtained from other sources. Third, prescription privileges may create a rift between psychologists and primary-care providers rather than increase integration and collaborative care. Primary-care

providers may equate referring patients to prescribing psychologists with a sign of their own professional limitations regarding the treatment of mental illness. They may also be uncomfortable referring patients to a professional who has less training and background in pharmacology.

Alternatively, prescription privileges may prove to be a boon to rural mental health care in the long term. First, the addition of prescription privileges to psychology's treatment repertoire may make the field much more attractive to bright young minds who might otherwise be considering an MD career track. The increased output of trained psychologists may weaken the job market in urban areas, forcing graduates to consider positions in rural areas, thereby increasing the mental health services manpower in these areas. Second, the ability to prescribe may improve the image of psychology as a health profession in the eyes of individuals who would potentially utilize mental health services. The stigma associated with mental illness in rural areas might be attenuated if disorders were approached from a biological perspective. Rural individuals might be more inclined to seek help if they thought that their problems were physiologically based rather than rooted in some character flaw or maladaptive coping strategy. Some support for this argument can be found anecdotally; it is often said that rural patients tend to somatize their symptoms (e.g., anxiety may be described as "a feeling in my gut"). Third, it does not have to follow that giving psychologists the right to prescribe will restrict the role of psychologists to inexpensive medication consultants (Sammons, 2003). If the standards of therapy coursework and instruction are upheld in psychology training programs, then traditional approaches do not have to take a backseat to medication. The use of medication as a conjunctive treatment could represent an increase in service quality for patients. Fourth, although resistance from the medical community seems to be strong, primary-care providers may come to appreciate psychologists' prescription privileges because of the reduced burden of patients with mental illness on their practices.

The outcome of this controversy for rural individuals is unknown. Prescription privileges could be harmful or helpful; convincing arguments can be made either way. In the short term, it is doubtful that granting prescription privileges would have any tangible impact. It may be

years before enough data on licensed prescribers are collected to determine whether they improve access and quality of treatment in rural areas. It is recommended that the activities of psychologists in the states that have granted prescription privileges be studied with great care: Comparisons of treatment outcomes and patient satisfaction between prescribing and nonprescribing psychologists in rural areas of these states could lend an empirical basis to either side of this debate. These comparisons are possible, as the states that have allowed psychologists to prescribe (New Mexico and Louisiana) contain large rural populations, perhaps not coincidentally.

The Role of Subdoctoral Practitioners in Rural Areas

As a profession, psychologists are generally thought of as possessing some form of doctoral degree, usually a PhD or PsyD. This belief is evidenced by the membership requirements of the American Psychological Association (2005). However, master's- and baccalaureate-level practitioners are thought to supply most of the mental health services in many rural clinics (Hargrove & Breazeale, 1993). Despite their regular presence as mental health service providers, state licensure agencies often reserve the title of psychologist to those with doctoral degrees and label subdoctoral professionals as "professional counselors." The disenfranchisement of subdoctoral practitioners in rural areas is potentially very dangerous. If indeed they provide a substantial amount of services (which seems to be the case), exclusion from eligibility for state licensure could set a perilous precedent.

In an age when private insurance companies play a major role in access to care, treatment provided by subdoctoral professionals could fall victim to cost-reducing efforts. One study of professionals in Ohio found no difference in reimbursement rates between doctoral-level and master's-level providers (Zimpfer, 1995). However, this study was conducted over a decade ago and holds little meaning considering the rapid changes in health services. The concern that private insurers and public healthcare assistance programs may exclude subdoctoral practitioners is especially relevant to rural areas, because access to doctoral-level providers is severely limited.

Clearly, there will never be enough doctoral-level psychologists to fulfill the needs of rural America (Hargrove, 1991). A significant degree of the burden of

caring for rural individuals has fallen on and will continue to fall on subdoctoral professionals. Hargrove and Breazeale (1993) recommend that research be undertaken to delineate the clinical skills possessed by master's-level professionals from those unique to doctoral service providers in order to better develop positions in mental healthcare systems that fit each group's strengths. In addition to the recommendation of Hargrove and Breazeale, professional organizations are urged to advocate for these professionals to help ensure their continued service in mental health care. Furthermore, states with substantial rural populations should be urged to reconsider what level of training constitutes a psychologist in order to ensure equitable access to care for rural dwellers. For some states, this may require revisiting past legislation (e.g., Minnesota, which licensed master's-level psychologists until 1991).

CONCLUSIONS

The plight of providing adequate mental health care for individuals in rural areas is a complex issue, and the solutions to the problems faced are not easily definable. However, psychologists can make significant contributions toward the alleviation of problems through research, practice, training, and advocacy. The literature suggests that research efforts have done a better job describing problems than creating novel solutions. Solutions that have been tested and shown promise seem to terminate with the publication of an article in a scholarly journal. Efforts have not been focused on disseminating and funding potentially powerful interventions. This is not to say that studying the problems with mental healthcare services in rural areas is an unimportant endeavor; identifying these problems is crucial to developing solutions. However, research on barriers to services alone does not, in the end, impact the people in need of services. A man who has been shot experiences no relief simply by being told of his wound. For this reason, we urge that the energies of rural psychologists, both in academia and in practice, be directed toward collaborative work to implement strategies for change.

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