BEHAVIORAL TELEHEALTH

Nebraska Department of Health and Human Services
Division of Behavioral Health Services
Nebraska Behavioral Health Reform

Academic Support Work Group

Principal Writer: Jodi Polaha, Ph. D.

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Behavioral Telehealth
The Nebraska Telehealth System
A Proposal from the Academic Workgroup on Telehealth
Prepared by Jodi Polaha, Ph.D.

Executive Summary

Objectives:
1. To increase behavioral health providers in rural shortage areas.
2. To increase community based services in response to recent legislation.

Significance:
1. 88 of 93 Nebraska counties are Mental Health Profession Shortage Areas (HRSA, 2000) with less than 1/3 of all providers practicing in the rural areas of the State.
2. The Nebraska Telehealth Project is moving toward a comprehensive technological network, however, little effort/funding has been devoted to the commensurate development of a network of behavioral health personnel to utilize this technology.

Current Barriers:
1. Most providers in the State are already busy and have little incentive to engage telehealth.
2. There are no providers in the State who have received specialized training in the area of telehealth service provision.
3. There is no mechanism for coordinating behavioral telehealth services or training in this area.
4. There are ongoing concerns about whether such services will be reimbursed by third party payers including Medicare/Medicaid.

Proposed Action Plan:
1. Recruit/develop behavioral telehealth providers.
   • Provide training for an identified core group of behavioral health professionals from a variety of disciplines (e.g., psychology, psychiatry, social work, nursing).
   • Provide funding for academic positions focused on the advancement of evidence-based behavioral telehealth services.
   • Integrate telehealth service program into training programs.
2. Develop a support system.
   • Identify a central site where interdisciplinary service, training, and research could be developed.
   • Involve primary care.
   • Engage the regional boards as they plan for community-based services.
   • Provide funding for research.
   • Re-visit State law regarding telehealth reimbursement.
• Include consumers in planning process.
3. Expand telehealth use.
• Supervise trainees.
• Consult with professionals in rural areas.
• Provide ongoing continuing education.
• Provide mechanism for consumer interaction.
BACKGROUND

Nebraska’s Behavioral Health Needs

More Behavioral Health Professionals in Shortage Areas. The State of Nebraska has a dire need for the increased provision of behavioral health services, particularly in rural communities. Adequate provision of behavioral health services to rural areas of the United States has been a major public health concern for the past two decades (Rural Mental Health Providers Report, SAMHSA, 1997), and Nebraska is no exception. Of the 93 counties in the State, 88 are considered "underserved" areas in terms of available behavioral and mental health professionals (Fraser, Hesford, & Rauner, 2003).

For example, a review of the geographic distribution of licensed practitioners shows that the majority are licensed to practice in the State’s two Standard Metropolitan Statistical Areas, Omaha and Lincoln. Of the remaining practitioners, a significant number are employed in State institutions and do not provide community services. Consequently, less than 20% of practitioners in Nebraska serve approximately one-half of the State’s population residing in rural areas of the State. This shortage is significant across behavioral health disciplines.

Increased Community-Based Care. The State of Nebraska needs creative solutions for increasing community-based care for those with behavioral health concerns. Currently, the Nebraska Behavioral Health System (NBHS) is comprised of the Division of Behavioral Health Services, three psychiatric hospitals (Regional Centers), and six behavioral health regions. Recently, however, there has been a legislative effort to reorganize this structure by eliminating the Regional Centers and increasing community-based care, keeping patients with significant behavioral health concerns closer to home.
Thus, the State is searching for appropriate treatment solutions for these patients as well as increased community-based treatment for all of Nebraska’s residents with behavioral health needs.

Utility of a Telehealth Program to Address Nebraska’s Behavioral Health Needs

What is telehealth? Telehealth or “telemedicine” is the exchange of medical information from one site to another (at a distance) via electronic communications for the provision of clinical services to patients; supervision and consultation to clinicians; or, educational programs. In fact, the State of Nebraska is credited with the first reference to telemedicine in the US when, in 1959, the University used two-way, closed-circuit, microwave television for medical treatment and education (Roberts, 1980). While the term “telehealth” can refer to the use of a wide variety of technologies (e.g., internet, personal digital assistants, e-mail, etc.), in the context of this paper, the term refers the technology of two-way videoconferencing, which is the most common and easily applied mechanism for the delivery of behavioral healthcare.

Empirical Support for Behavioral Telehealth. Presently, there is a growing body of evidence showing telemedicine can be successfully used for a variety of clinical services and educational initiatives. In a review of the literature in telepsychiatry from 1965-2001, Hilty, Luo, Morache, Marcelo, and Nesbitt (2002) described a wide variety of reported uses. These included, for example, the assessment and treatment of attention-deficit hyperactivity disorder and depression, behavior therapy for children with disruptive behavior, family therapy for multiple mental health problems, interdisciplinary
care and consultation for a neuropsychology clinic, group therapy for veterans with post-traumatic stress disorder, and interviews of patients with schizophrenia.

In addition, this review showed growing empirical support for the efficacy of behavioral telehealth. Hilty et al. (2002) described several controlled studies showing providers reliably assessed and diagnosed behavioral health concerns including, for example, major depression, bipolar disorder, panic disorder, and alcohol dependence. A number of controlled studies have demonstrated improved functioning following behavioral intervention via telehealth, including, for example, fewer hospitalizations for adults from rural Appalachia with significant behavioral health concerns, and no difference in functioning at outcome for depressed patients seen via telehealth versus in person.

Finally, the authors reported that studies of patient response to behavioral telemedicine have shown fewer missed appointments, possibly due to decreased travel time. Satisfaction surveys show patients rate behavioral telehealth services positively, and indicate they would use the service again. The finding that patients were satisfied with telehealth services was true for adult, child, and geriatric samples.

In addition to these studies regarding direct service provision, Hilty et al. (2002) described a number of telehealth initiatives to provide clinical supervision; trauma debriefing for a remote mental health treatment team; patient and family education; and, provider education. In particular, the authors described a US National Rural Health strategy employing telehealth for training/continuing medical education (D’Souza, 2000) finding high participant satisfaction as well as less time spent by trainees traveling to training sites, resulting in more time providing needed direct care. The authors review
research supporting the use of a telepsychiatric consultation-liaison service for rural areas which increases options for patients and simultaneously provides hands-on training for rural providers while treating a patient.

An Exemplary Program. The Arizona Telemedicine Program is an award-winning program using two-way videoconferencing technology for behavioral health service provision. The system was created by the Arizona State Legislature in 1996 and has grown into a multi-dimensional and inter-disciplinary program providing services to thousands of patients without access to care. The Program consists of multiple, interfacing systems including the Department of Corrections, the Veteran’s Affairs system, Indian health services, hospital and nursing home services, and the University of Arizona system.

The program has been used to reach underserved populations, particularly those residing on remote reservations in the northern reaches of the state. It has allowed for subspecialty consultations for atypical presentations (e.g., trichotillomania), clinical supervision of local providers, and a program of research that has made great strides toward advancing the field of behavioral service through telehealth. While many health-related disciplines utilize the ATP, about 98% of services are provided by dermatology, radiology, and behavioral health. A majority (45%) of the ATP’s fiscal support come from State funds (1.2 million per year since 1996), with additional support from service revenue (30%) and grants (24%).

Uses in Nebraska. Given Nebraska’s significant shortage of behavioral health professionals and vast rural territory as well as the recent shift to local/community-based behavioral health service provision, it seems clear that telehealth services have an
important role to play in the state’s future. First, telehealth efforts may represent a potential short-term solution to the current provider shortage. In the past five years, the State has initiated a number of efforts for recruiting behavioral health providers to rural communities including increased traineeships in rural areas and student loan reimbursement for those who practice in shortage areas. Until these efforts begin to “pay off” however, telehealth services may provide a temporary stop-gap with providers in hub sites seeing referred patients for behavioral health treatment at “spoke” or distal sites.

Second, this technology may be used to more quickly transition professional students to rural locations. For example, graduates of master’s level behavioral health training programs (such as counseling) need 3000 hours (about 18 months) of post-graduate supervision before they can become licensed to practice in the State. If this supervision is conducted via telehealth, graduates of these and other programs can locate to rural communities and begin providing services immediately after graduation rather than staying in metropolitan areas until their supervision hours are accrued.

Third, a well-developed telehealth program can offer long-term solutions for the State. There are several “frontier counties” in Nebraska, designated so because there are fewer than six residents per square mile. Thus, in many locations, particularly in Nebraska’s Sandhills, the population could not support a solid base of local providers, particularly specialists. In these areas, distance behavioral health services may be the best solution for increased access to quality care. Other areas, although populated, may never have access to sub-specialty areas in behavioral health (e.g., child psychiatry or behavioral pediatrics, eating disorder treatment, or, PTSD) in any capacity other than telemedicine.
Finally, the broad availability of telehealth around the State will enable increased consumer “choice” in selecting a behavioral health provider. Indeed, many small communities around the state have well-trained, highly-qualified behavioral health providers but consumers may only have a few “choices” (if any) and in some cases none of these may be acceptable. For example, it is very possible, particularly in a rural setting, that the local provider already has a significant relationship with the patient/consumer, making it unethical or quasi-ethical to engage a “dual-role relationship.” In other cases, the local provider may not be a good match in terms of personality or training for the consumer’s needs.

The availability of an additional provider or providers via telehealth could open doors for those consumers and may provide some shield against a perceived stigma surrounding mental health services. While results from one study in rural Nebraska showed consumers preferred to receive services by someone from within their community in whom they could trust (Jones-Hazledine, 2004), other reports indicate the opposite. In a multiple case study by faculty in Marriage and Family Therapy at the University of Nebraska, Lincoln, results showed consumers preferred telehealth because they felt the contents of their session was more confidential with a provider not located in their community (Bishoff, Hollist, Smith, & Flack, 2004).

Nebraska’s Telehealth Network

*Current technology.* Presently, the Nebraska Telehealth Project has been established to address the development of the necessary technology across the State. Its mission is to increase the quality, availability, and accessibility of healthcare
throughout the State, particularly rural areas, 2) decrease travel for rural residents by offering video-conferencing capability, and 3) prepare Nebraska for potential threats and natural disasters. The Project has as its long-term goal the establishment of a multi-dimensional and interfacing program much like that of the Arizona Telemedicine Program to create an environment of shared resources throughout the State. To this end, the Project is working with the Nebraska Hospitals Association, Nebraska Health and Human Services, the University System, the Nebraska Information and Technology Commission and others. Nebraska’s Department of Health and Human Services is currently spearheading efforts to purchase and install telehealth equipment at all of the state’s community hospitals. The Nebraska Telehealth Project has projected the by the summer of 2005, all 85 acute care community hospitals will be equipped to engage in the state-wide network.

Existing Efforts in Nebraska. As the technology has been developed, some beginning efforts to provide behavioral health services have been initiated. Current efforts in behavioral telehealth include the following:

1. Two therapists (Licensed Mental Health Practitioners) in Kearney’s Good Samaritan Hospital have been providing primarily adolescent and adult mental health counseling via telehealth for several years.

2. A pilot program directed by Dr. Richard Bischoff (Licensed Mental Health Practitioner) at the Marriage and Family Therapy program, University of Nebraska, Lincoln through the existing state-wide educational telecommunications system. End-user sites are rural high schools in the Sandhills
region of the State. A paper describing this program’s experiences (via a multiple case study) has been published (Bishoff, Holлист, Smith & Flack, 2004).

3. A part-time program administered by Connie Logan, Ph.D. (Licensed Psychologist) through the VA in Omaha to Veterans in Norfolk experiencing Post-Traumatic Stress Disorder.

4. A pilot program directed by Dr. Jodi Polaha (Licensed Psychologist) in the Department of Psychology, Munroe-Meyer Institute, University of Nebraska Medical Center with children and their families attending at the Regional West Hospital in Scottsbluff, Nebraska and at Good Samaritan Hospital or one of its 18 links around the State. Results from the first 15 patients seen in this Clinic (Sept., 2004 – February, 2005) show strong follow-through (two drop-outs) and high consumer-satisfaction ratings.

Current Barriers to Implementation

Provider Shortage. At the current time, Nebraska’s behavioral health providers are already actively engaged, if not inundated, by the demands of service provision in their local communities. In addition, no incentives have been developed for providers to work in shortage areas (other than loan repayment, if applicable) whether that be in person or by telehealth. Given this situation, few mental health providers have expressed an interest in involvement in a telehealth initiative and while the technology aspect to Nebraska’s system is moving forward, there is little “provider push” to develop a system for its use.
Limited Expertise in State. While all of the current efforts in the area of behavioral telehealth represent important early initiatives, there is no organized, well-directed provider campaign to introduce best-practices via telehealth. Presently, there are virtually no providers in the State who have engaged comprehensive telehealth training outside Nebraska. Such training is needed to “match” the strong technological program in development with a well-qualified workforce.

A number of training programs are available. As an example, the Arizona Telemedicine Program provides one and two-day training workshops. Such training is geared to providers, information technology staff, and administrative professionals and discusses the implementation of telehealth services from all of these perspectives. Indeed, it is important for all personnel involved in the delivery of services to have some general understanding of these various domains and no formal training of this type exists in Nebraska at this time.

Likewise, Nebraska’s providers need to be involved in national telehealth organizations and conferences. The American Telemedicine Association meets annually in the Spring and provides startup workshops to professionals in “new” systems (such as Nebraska’s). In addition, such conferences provide opportunities to learn about cutting edge practice in the area.

Lack of coordinated effort. One of the factors that contributed to the success of the Arizona Telemedicine Program is its coordinated system. The core of the program is housed at the University of Arizona, however, its staff and consulting health care professionals are not University employees. Concentrated State funding has allowed for the establishment of uniform sites around the State, with protocol-driven business
practice, paper work, and staff training. For example, every remote site is “set up” in the same way, using the same equipment. At the University, the “Warren Street Clinic” is used to train new providers in the use of telehealth. It is designed with both a conference room (for seeing distal patients) and a clinic set up, designed to show trainees what remote sites look like and hold mock telehealth sessions. Moreover, the Arizona system is set up using uniform equipment and access so that the fastest possible transmission speed is available and interactions occur as if “live” or in “real time.” The current system in Nebraska presents a brief transmission delay for many connections resulting in a more stilted interaction, a critical difficulty in the behavioral health field.

Concerns Regarding Reimbursement. Data presented by administration of the telehealth program at Good Samaritan Hospital shows excellent reimbursement by third-party payers for mental health services provided over the past 10 years. In fact, these data show only about 2% bills unpayable, and those that were not reimbursed were handled so for reasons unrelated to the use of the telehealth modality. Likewise, the Arizona Telemedicine Program has demonstrated success in billing all third party payers with the exception of Medicare.

Nevertheless, providers and administrators alike express concerns that their services will not be reimbursed and these ongoing concerns limit their interest in exploring the technology the State is developing. A number of facilities have struggled to become approved by DHHS as Medicaid-approved sites for behavioral telehealth service provision. In addition, extant State laws for Medicaid reimbursement limit behavioral telehealth practice. For example, telehealth services may only be reimbursed by Medicaid in situations in which there is no local provider within 30 miles of the
patient regardless of the provider’s area of expertise, patient waiting list, or previous relationship with the patient (a potential problem in small communities). In addition, Medicaid will not approve a non-hospital based site. Thus, mental health services provided through the educational telecommunications system (Bischoff et al., 2004) could not be reimbursed. This issue has been problematic for at least two new initiatives targeting rural behavioral health. Finally, Nebraska Medicaid will not reimburse services provided by nurse practitioners while they are being supervised via tele-communication, a particular concern given the potential for such providers to engage clinical nurse specialist training and join the behavioral health workforce.

A Proposed Action Plan

1. Recruit/Develop Behavioral Telehealth Providers. To begin, Nebraska needs providers that are not only interested in the mission of behavioral telehealth for this State, but also have the requisite training to provide state-of-the-art treatment services using this modality. To meet this objective, the following steps should be taken:

a. Provide training for an identified core group of behavioral health professionals. These individuals should represent a variety of disciplines including Psychiatry, Psychology, Social Work, and Psychiatric Nursing. In addition, these should include those who specialize in work with children, adults, and geriatrics, as specialized services are what makes telehealth especially meaningful to shortage area providers and patients. A call to extant providers should be a first step as there may be individuals within each
discipline, already familiar with the State, who would respond to this challenge if some kind of incentive were provided (see below). Subsequently, the State should consider hiring telehealth experts from outside.

b. Provide funding academic positions focused on the advancement of behavioral telehealth services. In order to provide core faculty with time to train, develop a new system, and engage in telehealth services, funding should be available to offset part or all of their salary. Anecdotal reports from pilot sites and from Dr. Chelsea Chesen of the Arizona Telemedicine Project suggest there is significant time spent in the “start-up” of this kind of operation. As this core group builds an efficient program, it will be easier to “build in” additional faculty or providers with minimum effort/cost.

c. Integrate telehealth service program into training programs. To insure the growth and future vitality of the program, telehealth training should be integrated into training programs across disciplines. All behavioral health training programs should provide students some experience in telehealth service provision with the option to “specialize” in that area. In addition, other health professions (e.g., family medicine, nursing) should also integrate some behavioral telehealth exposure into their curricula to insure the professionals with the greatest referral needs for behavioral health are familiar with this treatment modality.

2. Develop support system. As the core group is trained and is able to devote time to the development of behavioral telehealth service provision and training in
the State, a structure to enable the “clinician system” should be developed. To meet this objective, the State should:

a. Identify a central site. As each member of the core group becomes an “expert” in his or her field (e.g., psychiatry, psychology, nursing, etc.) for telehealth service provision, it would be helpful to have a shared site, where interdisciplinary service, training, and research could be developed. Following from the Arizona Telemedicine Program, each core faculty might have a telehealth “clinic” at his or her home department, but also a caseload at a shared site, where interdisciplinary work, training and research would be ongoing. The Center of Excellence in Omaha would be the logical choice for such a site given its proximity to many of the graduate training programs in the behavioral sciences.

b. Involve primary care. Approximately 60% of health care visits for mental health concerns occur in the context of primary care (Magill & Garrett, 1988). Particularly in rural areas, primary care physicians are usually the first medical professionals to encounter patients' behavioral health problems and are the identified gatekeepers of specialty services including mental health (Bray & McDaniel, 1998). Thus, because a vast majority of referrals to an extant telehealth program would come through community-based primary care offices, it will be important to involve these groups in the development of the telehealth system. In general, this recommendation is made to keep physicians involved in a process that will be, in part, dependent on their referral activity.
In addition, this recommendation is made because the involvement of rural physicians in such a system might improve their retention in rural communities and improve the quality of care they provide. According to deGruy (1997), 25% of rural physicians report they will leave their job in the next two years due to the overwhelming demands of working in an underserved area. Familiarity with telehealth may allow physicians more comfort with making referrals to behavioral health professionals working through this technology. In addition, other activities may relieve the burden for rural physicians including training in telehealth technology (both as part of their initial education and ongoing) as well as in-office telehealth capability for direct service provision to patients in primary care sites as well as for consultation-liaison and training services.

c. Communicate capabilities to the regional boards that are charged with community-based planning. Following the Arizona model, regions could elect to develop telehealth sites/facilities that are in coordination with the core group and allow individuals in mental health profession shortage areas access to such services while remaining in their own communities. Funding designated to assist regions in linking to and coordinating with the core group may facilitate this process.

d. Provide money to support research. Ultimately, faculty who will best keep Nebraska’s telehealth program at a “cutting edge” standard will be those interested in engaging research in this area, networking with experts at the national level. To this end, Nebraska’s telehealth program should have
regular competitive grants available to clinical researchers in various disciplines as well as allow researcher to compete for other national grants.

e. Re-visit State law regarding the use of telehealth and its reimbursement by State programs.

f. Involve consumers in the planning and training stages of development, particularly consumers from rural settings who can provide insights as to the confidentiality and acceptability of this treatment modality.

3. Expand Telehealth Use. Ultimately, to maximize the system’s potential, increase providers’ comfort with the use of two-way videoconferencing, and expand knowledge and training in the field, the use of telehealth in the field of behavioral health must be expanded to uses beyond service provision. Some important areas for expansion will include:

   a. Supervision for trainees.
   
   b. Consultation for professionals.
   
   c. Ongoing continuing education.
   
   d. Support groups for consumers.

References


Nebraska Behavioral Health Reform Project
Academic Support Work Group Participants 2004 -5

Nebraska Behavioral Health Reform Project
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Debra Anderson, PhD
Assistant Professor
School of Social Work
University of Nebraska-Omaha
Omaha NE

Cecilia R. Barron, Ph.D., RN
Coordinator, Advanced Practice Psychiatric Nursing
University of Nebraska Medical Center
Nebraska Medical Center
Omaha, NE

Susan Boust, M.D.
Associate Professor
Division Director Public and Community Psychiatry
University of Nebraska Medical Center
Omaha NE

Robert Bowman, M.D.
Associate Professor
Department of Preventive and Societal Medicine
University of Nebraska Medical Center
Omaha NE

Robert Bussard MPA,
Program Specialist,
Division of Behavioral Health Services
Nebraska Department of Health and Human Services,
Lincoln NE

Mark P. Christiansen, MS, MPAS, PA-C
Assistant Professor and Clinical Coordinator
Physician Assistant Program
University of Nebraska Medical Center
Omaha NE

Steve Curtiss, Director
Nebraska Department of Health and Human Services Finance and Support
Joe Evans, Ph.D.,
Chief of the Pediatric Psychology Department
Munroe-Meyer Institute
University of Nebraska Medical Center
Omaha NE

J. Rock Johnson, J.D.
Advocate
NE Legislative Behavioral Health Oversight Commission
Lincoln NE

Roxanna Jokela, MHA
Director - Rural Health Education Network
Deputy Director - Nebraska AHEC Program Office
University of Nebraska Medical Center
Omaha, NE

Christopher J. Kratochvil, M.D.
Associate Professor
Department of Psychiatry
University of Nebraska Medical Center
Omaha NE

Keith Mueller, Ph.D.
Director, Nebraska Center for Rural Health Research
University of Nebraska Medical Center
Omaha NE

Jodi Polaha, Ph.D
Assistant Professor of Pediatrics
Department of Psychology
University of Nebraska Medical Center
Omaha NE

Richard Raymond, M.D.
Chief Medical Officer
Nebraska Department of Health and Human Services
Lincoln NE

William Roccaforte, MD
Residency Program Director
Nebraska Psychiatry Training Program
Creighton University
Omaha NE
Blaine Shaffer, MD  
Chief Clinical Officer  
Division of Behavioral Health Services  
Nebraska Department of Health and Human Services  
Lincoln NE  
Professor & Vice Chair  
Department of Psychiatry  
University of Nebraska Medical Center  
Omaha NE  

Michael Shambaugh-Miller, Ph.D.  
Assistant Professor  
Medical Geographer  
Health Services Research and Rural Health Policy Section  
Department of Preventive and Societal Medicine  
University of Nebraska Medical Center  
Omaha NE  

Craig W. Smith, PhD,  
Associate Professor  
Marriage and Family Therapy Program,  
University of Nebraska-Lincoln,  
Lincoln NE  

Dennis Snook, MPA  
Program Specialist/State Methadone Authority  
Division of Behavioral Health Services  
Nebraska Department of Health and Human Services  
Lincoln NE  

Will Spaulding, Ph.D.  
Professor Department of Psychology  
University of Nebraska – Lincoln  
Lincoln NE  

Kate Speck, Ph. D.  
Assistant Professor  
Doane College  
Director Nebraska Addictions Technology Training Center  
Lincoln NE
Thomas Svolos, MD
Vice-Chairman, and Assistant Professor
Creighton University Medical Center
Department of Psychiatry
Omaha NE

Dan Wilson, M.D.
Professor and Chairman
Department of Psychiatry
Creighton University
Omaha NE