Training the next generation of counseling psychologists in the practice of telepsychology

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Training programs that integrate the use of technology are needed to prepare students for the future of service delivery in psychology. Training opportunities in telepsychology can equip students to develop, implement, and evaluate innovative modalities for mental health care. However, few options are available for trainees seeking to acquire these experiences, and while guidelines for service provision using technology are emerging, guidelines for and documented examples of training programs in telepsychology are virtually non-existent. The Telehealth Counseling Clinic, located at the Texas A&M Health Science Center, has developed a training model to prepare the next generation of psychologists to work with new technology to provide counseling services to low-income and uninsured individuals living in designated Mental Health Professional Shortage Areas in rural Texas. Training competencies necessary to serve this population through telepsychology are discussed and preliminary evaluation data of the training program are presented.

Keywords: telepsychology; telehealth; rural; competencies; training

The use of technology for service provision in psychology is growing at a rapid pace. Not only does telepsychology increase access to and reduce disparities in mental health services, but telepsychology may quickly become the preferred method of mental health treatment given how technology is intertwined in daily living. Psychology training programs have a duty to keep up with the changing technological landscape so that competent, ethical practice in this area is ensured. Unfortunately, this does not seem to be the case, as there are few agreed-upon standards for training in this area, telehealth practicum experiences are extremely limited, and supervisors with adequate knowledge and experience with this type of service provision are few and far between (Perle, Langsam, & Nierenberg, 2011). The American Psychological Association (APA) identifies telepsychology as an “emerging area in which generally recognized standards for preparatory training do not yet exist” (APA, 2013, p. 7).

The literature is severely limited when it comes to describing or evaluating training programs in the practice of telepsychology. A search of PsycINFO with the key terms “telepsychology” and “training” returned only two hits, which discussed specific training
in CBT and mindfulness using technology. And while “telehealth” and “training” returned over 150 hits, almost every entry concerned a health care profession other than psychology. Other similar key term searches were conducted with similar deficient results. While there is much to learn from the studies and descriptions of telehealth training in other health care fields, increased attention must be given to training needs and competencies in the developing area of telepsychology.

Telepsychology can help overcome many barriers to obtaining mental health care, such as lack of availability (i.e. not enough providers or specialty providers in the area), lack of accessibility (i.e. transportation issues, lack of insurance), and lack of acceptability (i.e. due to stigmatizing/ostracizing), which create disparities for those in need (Gulliver, Griffiths, & Christensen, 2010; Stefl & Prosperi, 1985). Rural populations are particularly vulnerable to health disparities due to consumer barriers such as less education, higher poverty levels, inadequate insurance, and discrimination, and provider barriers such as lower compensation, greater ethical risk, and geographic isolation (McCord, Elliott, Brossart, & Castillo, 2012; Stamm et al., 2003; Wagenfeld, 2003).

In the USA, the rural population represents 20% of the total population (55 million people), yet rural areas only have about 9% of the nation’s physicians (DeLeon, Wakefield, & Hagglund, 2003; Stamm et al., 2003). Among the states, Texas ranks 49th in the USA in mental health spending and is the worst in terms of the proportion of counties designated as mental health professional shortage areas (MHPSA; Kaiser Family Foundation, 2014; Trust for America’s Health, 2008). MHPSA designations by the Health Resources and Services Administration (HRSA) are based, in part, on the proportion of “core mental health professionals” – including psychiatrists, clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage and family therapists – available to the population (e.g. a population-to-core professional ratio greater than or equal to 9000:1; http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/mentalhealthpsaoverview.html). In 2013, over 67% of licensed clinical psychologists in Texas were in the five most populous counties and the rest of the state had a ratio of 86,277 persons per clinical psychologist (Texas Department of State Health Services, 2014).

Given these obstacles, meeting mental health needs in rural, underserved areas requires creative, community capacity building solutions that fit the specific needs of the areas being served (Trickett, 2009; Wendel et al., 2009). The training program described here uses videoconference and telephone technologies to provide counseling services to a rural, underserved region in Texas. The primary aim of this article is to provide an example of a training program focused on equipping future psychologists with the competencies necessary to provide telepsychology services including (a) basic counseling competencies, (b) community competencies, (c) scientist–practitioner competencies, and (d) telepsychology competencies.

Clinic overview

The Telehealth Counseling Clinic (TCC; http://telehealthcounseling.org) is a non-profit psychological services, research, and training clinic operated under the administration of the Department of Educational Psychology and the Center for Community Health Development (CCHD; http://cchd.us) at Texas A&M University. The TCC strives to increase access to and provision of mental health services for indigent and low-income residents in the Brazos Valley region of Texas by providing telehealth counseling and
assessment services to underserved populations. Services are provided by doctoral students in the APA-accredited Counseling Psychology program. Students are supervised by doctoral-level faculty who are psychologists or otherwise licensed mental health professionals.

In 2006, a health survey of the Brazos Valley identified mental health needs as a priority for the region. In fact, 18.1% reported being diagnosed with depression, 15.8% reported being diagnosed with anxiety, and 62% of individuals surveyed reported being unable to access needed mental health services (CCHD, 2006). Among this sample, even greater needs were found among lower income levels, African-Americans, and women (Brossart et al., 2013). In conjunction with CCHD, a group of community leaders, stakeholders, and service providers called the “Brazos Valley Health Partnership” turned to the Counseling Psychology program at Texas A&M University to initiate an academic–community partnership and capitalize on the resources of the nearby university (see Wendel, Brossart, Elliott, McCord, and Diaz [2011] for a more in-depth description). Rural development grants from the HRSA were secured to fund the opening of the first two remote sites, and a Medicaid 1115 Waiver award has supported the expansion of those sites and the addition of three more sites.

In total, the TCC serves five counties in the Brazos Valley region, which is situated between the major cities of Austin and Houston. All five counties served are designated MHPSAs. Community leaders within each county and other project stakeholders determined remote site locations based on population density within the county to make the service as accessible as possible to the greatest number of residents. Although clients must still travel to a location within their county (as opposed to in-home services), the travel burden has been significantly reduced from over an hour in some cases to a 5- or 10-minute commute. Transportation is a major concern among all individuals of low socioeconomic status (SES) and is an even bigger problem in rural areas where public transportation is often non-existent (US Department of Health and Human Services: Health Resources and Services Administration, 2005). Disadvantaged individuals in rural areas cannot be expected to commute long distances to access services, and the use of long-distance technologies is an especially appropriate solution for individuals with transportation issues. The TCC’s policies require the initial intake to be done using the videoconference equipment so that the counselor can observe the client’s physical presentation in evaluating appropriateness for services. If the travel burden to the remote site clinic within the county is still significant, counselors may conduct future sessions over the phone or coordinate with local agencies that help transport county residents to health care services.

The TCC is equipped with three rooms with high-definition television screens and Cisco Telepresence SX-20 VC videoconferencing equipment. Each remote site is equipped with identical equipment, although the size and layout of each remote site room differs. Most remote site rooms are adequately sized for individual or couples counseling, and one site has enough space to conduct group therapy. Counseling is conducted via HIPAA-compliant T1 lines and through telephone communication. Individual, couples, and group counseling services are offered in English and Spanish for ages 13 and up. Since opening in 2009, over 2000 sessions have been provided, and clients have been seen for an average of 10 sessions.
Training program overview

Twenty-five counseling psychology doctoral students have completed practicum training at the TCC, and some graduates from the program now work with telehealth programs in the US Department of Veterans Affairs and the Department of Defense. Student counselors are expected to divide their time into direct service provision, supervision preparation including tape review, individual and group supervision, and case management responsibilities. Practicum counselors are trained as generalists and see a wide variety of presenting concerns. The most common presenting concerns are depression, anxiety, posttraumatic stress disorder, bipolar disorder, and substance abuse/dependence.

A Hauppauge HD PVR Rocket Portable Game Recorder is located in every therapy room in the clinic to capture the image and sound from the television telepsychology sessions. This recorder is often used by video game enthusiasts to capture high-definition audio and video data; the unit records at resolutions up to 1080p30 using a H.264 video compression and produces crisp images and enhanced sound. Utilization of video supervision is integral for the development of practicum counselors at the TCC. The quality of the video allows for the supervisor and counselor to review sessions and observes areas of growth and strength in the counselor’s work.

Training competencies

Given the dearth of information about training models for the practice of telepsychology, a detailed description of the TCC training program is provided to serve as an example to spur other training programs to develop their own variations. The TCC training program aims to prepare psychology doctoral students not only for future roles in chronic and rural mental health care but also for providing telepsychology services in any setting. The model described here addresses many of the foundational and functional competencies relevant to the doctoral education stage of professional development (Rodolfa et al., 2005). Trainees are equipped with (a) basic counseling competencies, (b) community competencies, (c) scientist–practitioner competencies, and (d) telepsychology competencies.

Basic counseling competencies

The population served, the problems addressed, and the service-delivery modality utilized all influence the operationalization of the functional and foundational competencies required of trainees (Rodolfa et al., 2005). Providing services to individuals of low-income or residents of rural areas using telehealth requires basic counseling competencies related to (a) service provision, (b) multiculturalism, and (c) ethics and laws. Integration and application of basic counseling competencies in training students is crucial for the development of the next generation of psychologists.

Service provision

As a consequence of living in an MHPSA, some clients have gone their entire lives without needed mental and physical health services. The low-income, underserved, and rural population seen at the TCC often presents with complex and comorbid physical and mental health symptoms, leaving the clinician with perplexing decisions about how
to conceptualize the case and prioritize complaints. For example, a client may present with substance abuse, trauma, diabetes, HIV, depression, anxiety, intense lower back pain, and insomnia. Determining where a diagnosis or symptom begins to influence another can be an arduous task for any counselor. This example demonstrates the intricate complexities of this population that has had little to no access to necessary health care.

Recognizing the need to develop competency in complex presentations, the TCC addresses this issue through the use of didactic training integrated group supervision, tape review, and individual supervision. Practicum students in the Counseling Psychology doctoral program at Texas A&M University receive their initial practicum training at a community health clinic where they receive generalist training for a wide variety of concerns, and cases are pre-screened to meet the developmental level of beginning counselors. With this prior training in mind, trainees at the TCC are then exposed to more advanced technique didactics and individual and group supervision that build counselors’ knowledge of interventions and challenge their conceptualization skills. Evidence-based treatment and change conceptualization didactic trainings are utilized at the TCC to develop awareness of the importance of using current research to aid in the discernment of multifaceted presenting cases. Current evidence-based didactic trainings include: cognitive behavioral therapy, cognitive processing therapy, acceptance and commitment therapy, and interpersonal therapy.

Individual supervision is preceded by time spent with case management and supervision preparation (this includes time for tape review). During these two allotted times, counselors formulate case hypotheses and questions they may have based on assessment data, clinical observations, and theoretical frameworks. In addition, they search through literature for information to support their conceptualization, and find information and methods to support and improve the quality of interventions. During individual supervision, the supervisor and counselor discuss current strategies, hypotheses, and conceptualizations; it is in this discussion that the supervisor challenges counselors to support their tactics and provide evidence from the literature that incorporates knowledge of the array of complex presentations clients may be facing.

**Multiculturalism**

Diversity among low-income/rural populations can vary greatly from area to area. For example, a large part of the community identity among clients in one county served by the TCC is uniquely fueled by the history and reputation of a well-known ice cream factory situated in one of the cities. More generally, counselors are trained to consider issues like immigration status, level of acculturation, and preferred language of the Latino clients served at the TCC. Counselors must also be sensitive to how covert and overt racism and discrimination of minority groups like Blacks and individuals who identify as GLBTQ may be heightened in rural areas, and counselors must be careful not to overpathologize “healthy cultural paranoia” in these groups (Ridley, 2005).

In order to competently work with any population, culture must be considered as omnipresent (Ridley, 2005). Thus, multicultural competence is integral to working with the TCC’s rural, low SES client population. Cultural competence specific to rural and low-income populations requires counselors to: (a) be aware of their attitudes, biases, and beliefs, (b) gain knowledge of rural and low-income culture, and (c) incorporate
this information into efficacious interventions, conceptualizations, and hypotheses (Mirsky, 2012; Sue & Sue, 2013).

Self-awareness

First and foremost, counselors are people who have their own attitudes, biases, and beliefs that have formed through their experiences; there is no one counselor who is absent of these human qualities. Consequently, it is important for counselors to be self-aware of how these qualities influence practice. A counselor lacking self-awareness proves to be incompetent and potentially dangerous to clients as the attitudes, biases, and beliefs they hold may be completely or partially unconscious to them, yet they play into practice and case conceptualization (Mirsky, 2012). A counselor’s belief that overdependence on technology is a major flaw in today’s youth may lead to skepticism about the effectiveness of some telepsychology treatment modalities that differ too much from traditional talk therapy. If this skepticism is rooted in unconscious values as opposed to research-informed opinions, this belief could affect the recommendations he or she makes to clients and colleagues, and hinder the advancement of new telepsychology treatment options within his or her circle of influence.

Training at the TCC addresses the development of self-awareness through the use of group supervision, tape review and supervision preparation, and individual supervision. Tape review and supervision preparation time is used to foster increased awareness, in both supervisor and supervisee, of the patterns the counselor is displaying in session. Other experiential activities, such as a card sorting activity based foundationally on the Knowdell™ Career Values Card Sort (Knowdell, 2004), are used during group supervision to develop counselors’ self-awareness of the intersection of various aspects of their identity and the value placed on those identities.

Knowledge of rural cultures

While individuals may share universal and group levels of identity, on the individual level, they have non-shared experiences and genetics that make them unique (Sue & Sue, 2013). Therefore, being from a rural area does not translate to having identical group levels of identity (religious preference, culture, SES, etc.; Sue & Sue, 2013). Age, population size of the resided province, employment, ability to allocate transportation, language, geographic isolation, and access to health care create extensive diversity in the culture of individual rural populations (McCord et al., 2012). For example, consider the religious and spiritual differences among rural areas predominately populated by Native Americans versus those populated by the Amish. Or the transportation barriers posed to those living in rural Alaska where the biggest barrier may be access due to inaccessible terrain versus transportation barriers in rural New Mexico where the biggest hurdle may be distance. Even when looking at two adjacent counties in the region served by the TCC, the values emphasized and the resources available can be quite different. For example, in the counties served by the TCC, three have some transportation available from a volunteer service created by the health resource centers to get residents to medical appointments, one has a very limited mass transit system, and one has no known programs to help its residents with transportation issues. One community has had years of success in high school football, and attending games and supporting the
team is a large part of the community culture while another community is known and valued for its large deer population and hunting land.

Community assessments have identified many issues that affect the region served by the TCC. Disproportionate rates of chronic illness have been found in the Brazos Valley region compared to national average. Adults in the area have more than twice the rate of depression in comparison to the US average (24.6% vs. 12%); the most noted chronic illnesses within the area are anxiety, asthma, congestive heart failure, depression, emphysema, high cholesterol, and hypertension (CCHD, 2013). Additionally, counties of the Brazos Valley are having great difficulty matching the rate of growth of their respective populations (CCHD, 2013). Currently, the counties are reporting an increasing demographic of older adults who come to retire in the area and a growing Hispanic population (CCHD, 2013). Additionally, 53.4% of its residents are US veterans who have seen active combat (CCHD, 2013). There is a noted lack of employment opportunities, housing, and general city infrastructure to adequately sustain the population (CCHD, 2013). The disparity in employment opportunity this population faces is further complicated by many residents’ lack of access to transportation, which prevents them from seeking jobs outside of their communities. Consequently, this results in limited financial resources and impinged ability to meet nutritional and housing needs.

Integral to serving this population is training aimed at the development of this multicultural competency needed to adequately provide informed care to clients. Thus, the TCC utilizes experience gained from service provision and didactic trainings to develop knowledge of rural cultures. The TCC counselors gain experience with their clients of rural populations and learn, through session, the vast diversity of the culture found in rural populations. Additionally, the TCC provides its counselors the opportunity to attend and participate in community events at the various clinics/health resource centers located throughout the Brazos Valley. An annual driving tour of all the counties gives counselors a greater appreciation of the distances clients would have traveled if not for the TCC’s services, the resources that are or are not available to residents, challenges residents may face, and the attitudes and beliefs within the area. Supplementary to these experiential trainings, didactic training on multicultural considerations for rural clients is used by the TCC to help foster cultural competence within its counselors.

Knowledge of low-income cultures
The majority of the clients served by the TCC is uninsured and live below the poverty line. Consequently, knowledge of low-income cultures is a separate, but integral competency domain for counselors. To illustrate this importance consider the following example: a counselor of high income may be upset at his or her client of low-income because the client purchased an expensive entertainment system rather than invest or save the money; despite the counselor’s reactions, the client is happy with this choice because he or she is able to relax. The counselor in this situation is missing knowledge of low-income cultures that would help them understand the client better; individuals of low-income often do not have basic needs met, and often they find that entertainment helps to cope with the stress they feel (Liu, 2012). In addition, counselor and client dynamics may be influenced by differences in values, perspectives, and communication styles. Low-income individuals tend to utilize more non-verbal communication, have an indirect message delivery style, and must focus on present living and survival versus...
Ethics and laws

It is integral that basic telepsychology counseling competencies incorporate the ethics and laws governing the provision of psychological services. In many situations, ethics and the law coincide, particularly when counselors have numerous resources at their disposal (i.e. ability to refer out and/or abundance of other professionals in an area). However, serving rural populations often provides unique situations that require counselors to decide how to observe both ethics and laws, and resolve conflicts between the two. Some of the ethical challenges encountered by the TCC and others serving rural, low-income areas include dual relationships, use of bartering, service interruption, and working at the fringes of one’s competency.

Dual relationships. Rural areas have numerous health disparities that often cause health providers to serve multiple roles within a community. Counselors in dual relationships must be aware if serving in multiple roles ever becomes harmful to the client. The APA Code of Ethics does not restrain psychologists from entering dual relationships; however, caution is given (American Psychological Association, 2010). Many counselors serving rural areas may find themselves in this predicament as communities are often small and mental health services are limited.

The TCC serves multiple counties that have limited, if any, other mental health services. As such, there are times in which people who serve as staff for the outlying clinics want to be seen for counseling. This creates a complexity for the TCC counselors as they are providing counseling for individuals who work collaboratively with them to schedule and provide services to other clients. The TCC prepares its counselors through didactic trainings on laws, guidelines, and ethics, to be able to make sound judgments if a dual relationship should occur. Individual supervision is used to facilitate questions counselors may have and educate them further on the navigation of dual relationships and what may be deemed inappropriate and appropriate.

Bartering. Individuals of rural and low-income backgrounds may find it difficult to afford services; in many instances, they are unable to meet their basic needs (i.e. food and shelter; Payne, 2005). In addition, there may be limited mental health services and other resources in rural areas. As such, there is rarely, if ever, the ability to refer to other professionals for an inability to pay. Therefore, counselors expecting to work in rural areas must be aware of bartering. The APA Code of Ethics does not limit counselors from obtaining payment through bartering; however, much like dual relationships, the bartering of services for other goods and services, must not be exploitative or cause harm to the client (American Psychological Association, 2010).

Service interruption. The APA Code of Ethics calls for psychologists to notify clients when services will be interrupted (American Psychological Association, 2010). While
some professionals may not find their services to be interrupted frequently, services from training clinics such as the TCC are often interrupted. Students who are working on a semester schedule are taught to communicate these limitations with their clients. This also includes making efforts to transfer clients early to new trainees as current trainees leave to pursue other practicum sites or internship.

Fringes of competency. It is an ethical mandate that counselors work within their competency, but due to the limited resources available to rural and low-income populations and the complexities of working with rural and low-income populations, counselors may often find themselves working at the fringes of their competency. The structure of the training program is designed to help counselors navigate perplexing cases, and counselors are trained to recognize the limits of their own competence and identify the appropriate intervention (i.e. refer the client, seek additional training/classes, utilize supervision and consultation, etc.). Importantly, the TCC is designed to provide advanced students with opportunities to expand their clinical skill sets as they address the unique needs and issues presented by clients. Trainees are encouraged to be acquainted with ongoing issues in and the emerging support for evidence-based therapies in telepsychology (Gros et al., 2013; Nelson & Duncan, 2015).

Community competencies
Counseling psychologists are currently underrepresented in the public arena where the majority of our mentally ill are being served (Chu et al., 2012). As psychologists enter areas where they are most needed, they will need to acquire competencies related to the communities they serve. The competencies involved in serving this sector are unique. It is expected that trainees at the TCC will acquire a developmentally appropriate understanding and utilization of community collaboration and interdisciplinary collaboration.

Community collaboration
Trainees are encouraged to get involved in events within the communities they serve. For example, the TCC has hosted several events to boost awareness of its services including open houses and anniversary celebrations. Trainees are involved in the planning of these events where they learn the importance of buying and renting supplies locally and creating buy-in from community members and political leaders. They are also encouraged to attend these planned events in addition to other community events like health fairs and local festivals. At these events, trainees are expected to network with stakeholders and leaders in the community, referral sources, and the general public. Counselors must step out of their typical role in the therapy room and use relational skills to connect with community members by not only discussing the TCC’s services, but also asking about their families and talking about local events like football and weather.

Trainees see the effort needed to maintain relationships in the community to keep referral numbers increasing. They are taught that the “build it and they will come” mentality is not enough. The clinic director has quarterly meetings with county judges and bi-annual meetings and/or phone calls with referral sources, and trainees are encouraged to attend these meetings. Additionally, referral sources are routinely informed that the person they referred has made an appointment, and treatment plans and progress notes
are made available with client consent. Even with consistent contact in the community, there is still a gap between making the community and referral sources aware of the TCC’s services and actually having the client schedule and attend an appointment.

**Interdisciplinary collaboration**

Every psychologist can improve their client’s quality of care by collaborating with other health care providers, but this is especially important in rural and community settings. Small communities have the benefit of being so small that counselors can know the names (and usually the faces) of the other health providers in the area. In practice, interdisciplinary collaboration is challenging and time consuming, but is part of providing quality care. Given the lack of resources of many of the TCC’s clients, collaborating with social service disciplines is also important. Knowledge of how to utilize social services is frequently taught in social work programs, but infrequently emphasized in psychology graduate training.

**Scientist–practitioner competencies**

Expecting current and future psychologists to integrate science and practice is difficult, but not impossible. Focusing on psychologists’ multiple levels of influence enriches this integration. The TCC provides valuable training in understanding the reciprocal relationships of clinical practice and empirically based outcomes with federal and state policies described by Elliott and Shewchuk (1996). Following this model, the TCC trainees use a three-tier model of assessments, data, and research, which is conceptualized as having influence at (a) the individual level, (b) the clinic level, and (c) the societal/community level.

**Tier 1: individual level**

At the individual level of assessment, practicum counselors use data on symptoms and overall functioning to inform their one-on-one work with clients. Clients complete the full Patient Health Questionnaire (PHQ; Spitzer, Kroenke, & Williams, 1999) and the CORE-B at intake and continue to take the CORE-B at every session and the PHQ-9 every other session. The CORE-B (derived from the 34 question CORE-Outcome Measure) is an 18-item self-report measure developed to track client progress in therapy (Evans et al., 2002). The CORE-B uses a five-point Likert-type scale to measure the four domains of well-being, problems, risk, and functioning. The measure also has a global distress score (the sum of the mean score on all four domains). Scores on each item range between 0 and 4, with higher scores indicative of higher distress. Gender-based cutoffs are used to track how the client compares to individuals of their same gender (Evans et al., 2002). The full PHQ is a diagnostic instrument including yes/no and four-point Likert-type scale options for eight common mental disorders based on DSM-IV criteria, including major depressive disorder, panic disorder, other anxiety disorder, and bulimia nervosa (Spitzer et al., 1999). The PHQ-9 includes only the nine items related to depression. Individuals are asked to indicate the amount of time a particular depressive symptom has bothered them over the last two weeks. Scores can be used to assess whether diagnostic criteria have been met for a DSM-IV diagnosis of
major depressive disorder as well as to track symptom severity over time (Kroenke, Spitzer, & Williams, 2001). Data from these assessments are used to inform the conceptualization, diagnosis, and treatment plan for each client both at intake and throughout the course of therapy. Counselors provide feedback to clients about progress they are making as well as stuck points. Counselors may provide data about total scores, domain scores, or even individual items. For example, one question that asks about whether the individual blames his or herself for his or her problems may be answered “all the time” for an extended period of time. When the client’s response shifts, the counselor can process this improvement with the client, explore what led to the shift, and reinforce progress on the therapeutic goal of reducing self-blame. Measures of risk are also included on both the CORE-B and PHQ-9, and regularly inform the counselor about the necessity of safety planning for increased suicidal ideation. Lambert et al. (2003) suggest routine, formal monitoring of client symptoms as a best practice for clinicians. Studies have shown that consistently tracking client symptoms leads to increased positive outcomes and reduced drop out, especially for clients with poor initial response to treatment (Lambert et al., 2001, 2003).

Tier 2: clinic level
At the clinic level of assessment, telepsychology services are evaluated and continuously improved through PDSA (plan-do-study-act) quality improvement cycles. Satisfaction surveys and programmatic data from sources such as paper patient records, electronic medical records, and appointment records are reviewed and analyzed on a quarterly basis. Trainees and supervisors collaborate to identify areas in need of improvement and generate ways to improve the quality of services provided. For example, in order to reduce no-shows, the clinic has planned to implement text-messaging reminders for appointments. Several practicum counselors participated in the brainstorming of ideas to reduce no shows and assisted in the development of an implementation plan with step-by-step protocols. The electronic medical record system, Titanium Schedule, is used to evaluate the impact of the intervention at the end of the quarter.

Tier 3: societal/community level
At the societal/community level, trainees use assessments, data, and research in multiple ways. First, data and research are communicated back to the communities served by the TCC through a monthly e-mail to stakeholders about the number of sessions attended and also by displaying research posters and papers at TCC events in the community such as anniversaries and open houses. Additionally, 100% of practicum counselors in the last year have taken advantage of the opportunity to present and publish posters and manuscripts at a regional, state, national, or international level. Finally, the TCC’s participation in the Medicaid 1115 Waiver necessitates the use of data and assessments to provide feedback to the state and federal governments about the success of the project.

The Medicaid 1115 Waiver was developed to allow states to

… demonstrate and evaluate policy approaches such as: expanding eligibility to individuals who are not otherwise Medicaid or CHIP eligible; providing services not typically covered by Medicaid; (and) using innovative service delivery systems that improve care, increase efficiency, and reduce costs. (Medicaid.gov, n.d., para. 1)
In order to receive payment from the Medicaid waiver, metrics that were selected from a menu of choices must be met. Some of the selected metrics involve purchasing equipment and developing policies and procedures manuals for the remote sites, while other metrics require data collection and analysis. For example, client satisfaction with services and a 10% improvement over the TCC’s baseline of PHQ-9 depression scores must be demonstrated each year. Projects across the nation are evaluated for viability, and the demonstration of a successful project has the potential to influence policy and how government-funding agencies decide to allocate funds in the future. At the TCC, trainees are incorporated into clinical service decisions and funding discussions, thus better equipping them to problem solve similar situations in the future.

The procedures used to measure outcomes for the Medicaid waiver project are the same tools necessary for any type of programmatic evaluation and will be transferable skills upon entering the profession. By being involved in research, trainees are forced to understand the background of the clinic and how it was developed. They learn about how to build community capacity, or how to utilize the resources and capital in and around the community to develop creative, sustainable solutions for the unique needs of that community (McCord et al., 2011; Trickett, 2009). It becomes understood that finding solutions for communities is similar to therapy: when the community comes up with their own answers, they are more likely to follow through because they understand their own barriers and are more likely to commit to a solution they have chosen.

Preliminary outcome data indicate that significant benefits are readily observed after four sessions among clients receiving the TCC’s services. More specifically, a significant decrease in client depression has occurred after four sessions and significant increases in overall well-being have been observed (McCord et al., 2011; Tarlow, McCord, Elliott, & Brossart, 2014). Other aspects of health-related quality of life that pertain to physical health did not change in response to telepsychological interventions (Tarlow et al., 2014). Analyses of outcome data are ongoing to provide the best understanding of how clients benefit from these services.

**Telepsychology competencies**

A handful of state and international psychological associations have created guidelines and suggested competencies related to providing psychological services using technology (American Psychological Association, 2013; Canadian Psychological Association, 2006; New Zealand Psychological Association, 2011; Ohio Psychological Association, 2013). The training competencies outlined below are not all-inclusive for all types of telepsychology services and comprehensive training guidelines for telepsychology are still needed. The telepsychology competencies described here are those relevant to the TCC training program and are divided into telepsychology technical skills and telepsychology clinical skills.

**Telepsychology technical skills**

Providing psychological services in an office setting requires psychologists to acquire specific skills related to the setting in which they work. This may include becoming familiar with the telephone system or learning how to manage paper files appropriately (i.e. buying filing cabinets/shredders, or copiers). In a setting where telepsychology
services are provided, an increased level of proficiency in technical skills is necessary for telepsychology service provision. Proficiency with technology includes foundational knowledge and functional skills such as troubleshooting and policy and procedure development.

**Foundational knowledge.** Trainees need foundational knowledge of the available technology options for telepsychology service provision and how to operate those technologies. Although the TCC counselors do not typically need regular training on how to call a client for a phone session using a telephone, they do get basic training about the videoconference technology. Trainees are made aware of current technology being used for telepsychology and taught how to stay up to date with evolving technology options by consulting with colleagues and participating in conferences, trainings, special interest groups, and listservs. In addition, counselors are expected to have a basic understanding about the encryption of transmitted video data and the secure storage of client data.

**Knowledge implementation.** In order to have successful daily operations in telepsychology, counselors must be able to troubleshoot basic audiovisual problems. This includes knowing how to restart any equipment being used on both sides, knowing that multiple devices may have influence over volume (i.e. television monitor, videoconference equipment, and recording equipment) and how to adjust the volume on each device, and knowing how to change the input/source being displayed on the screen. Many of the TCC’s counselors are tech-savvy, and come in with some technical skills and ability to troubleshoot basic problems; however, this is not always the case. Trainees are taught preliminary technical skills during their orientation to the training program and through their experience with the technology, become more resilient in addressing issues that arise.

Not only must trainees learn to troubleshoot issues on their side, they must also be equipped to help someone at the remote site. Remote site staff are used instead of clients to adjust camera angles, volume, or monitor input. If a counselor cannot help the remote site staff resolve a minor issue with the technology, a technician will have to be dispatched to the site, which could cause the site to be unusable for days until a technician can make the trip for something as small as having the wrong input selected on the remote side television. When more significant issues cannot be resolved through basic troubleshooting, trainees must collaborate with Information Technology professionals to ensure continuity of service. Counselors are trained how to report issues and interface with these professionals.

**Telepsychology clinical skills**

Trainees learn technical skills necessary for telepsychology service delivery; however, they are also in the process of becoming trained as clinicians in counseling psychology. Thus, trainees also develop clinical skills necessary for competent practice. In conjunction with the basic counseling skills necessary for the competent provision of psychological services generally, there are some additional clinical skills needed when providing telepsychology services. These include having a foundational knowledge of state and federal regulations, choosing appropriate clients and interventions, and addressing unique issues in the initiation, maintenance, and termination stages of therapy.
**Foundational knowledge.** Counselors must be knowledgeable of and abide by the laws that are provided by the state board of examiners of psychologists (SBEP) and the federal government (i.e. HIPAA). The ability to practice is granted through the SBEP for each respective state. However, some states allow counselors to practice with license from different states. And these regulations may change rapidly with the recent release of the *Psychology Interjurisdictional Compact*, which is designed to facilitate telepsychology practice across jurisdictional boundaries (Association of the State and Provincial Psychology Boards, 2015). Thus, it is critical to know the legal parameters of inter-state service provision. Other laws that vary across states, such as the requirement to meet face to face with clients at least once, have serious implications for practice. Through various didactic trainings and individual supervision, trainees are taught about current laws related to telepsychology as well as the process of staying up to date with regulations as they evolve.

**Selecting appropriate clients and interventions.** Trainees are also taught to consider for whom telepsychology services are appropriate. The clinic has established policies and documents to help counselors make these determinations with new clients. The client’s diagnosis and risk level must be considered, as psychosis and severe suicidal or homicidal ideation are likely to be exclusionary criteria for telepsychology services. Other considerations include a client’s openness to a new treatment modality, and his or her current level of proficiency with technology. Clients with hearing difficulties may also not be a good fit for counseling conducted via videoconference or telephone without appropriate accommodations.

How to select and implement appropriate interventions also becomes part of a trainee’s thought process. For example, the psychoeducational piece of cognitive behavioral therapy is fairly consistent in face-to-face, videoconferencing, or telephone interactions. However, how worksheets are implemented and used can vary depending on the technology being used and their usage requires some creativity on the part of the therapist. The same is true for prolonged exposure techniques for trauma. While the processing of the traumatic experience and subsequent rating of anxiety levels can be conducted regardless of the communication modality, there are extra considerations when not meeting in person (Gros, Yoder, Tuerk, Lozano, & Acierno, 2011; Tuerk, Yoder, Ruggiero, Gros, & Acierno, 2010). For example, many protocols require that the session be recorded so the client can listen to the recording again in between sessions. When using telepsychology, this step can take extra coordination and assistance from the client. Also, given the nature of the content being discussed in prolonged exposure therapy for trauma, it is important that the counselor is able to attend to the non-verbal cues of the client. Therefore, the TCC’s counselors do not conduct this type of intervention over the phone.

The TCC training program also emphasizes the appropriate use of assessments with clients. It is important for psychologists to remain mindful of the appropriateness of measures that have not been used over telepsychology before and may have questionable psychometric properties (American Psychological Association, 2013). For example, most client self-report measures are easily amenable to telehealth while measures of cognitive functioning are not. The TCC collects clinical outcome data from clients through the use of self-report assessments to ensure quality of service. These inventories are appropriate for telepsychology services. Conversations with staff regarding assessment selection and protocols for the services provided at the TCC are ongoing.
Initiating, maintaining, and terminating therapy. There are several considerations emphasized related to initiating the counseling relationship, and building and maintaining a therapeutic alliance. One of the first important tasks in the therapeutic relationship is establishing informed consent. This includes explaining the benefits, risks, and limitations of telepsychology services to the client. As discussed in the technical skills’ section, counselors first must obtain the needed foundational technical knowledge about the technology being used, the security of the client’s protected health information, and the policies/regulations regarding the disposal of their data. Then, clinically they must translate that information accurately and in a manner understandable to the client.

When beginning to establish a therapeutic alliance, some finesse is needed in ensuring the client feels comfortable with and is knowledgeable of the idiosyncrasies of the technology used. At the TCC, clients are informed that when the counselor is looking them in the eye on the screen, due to the location of the camera, it may look as if the counselor is looking down. The clients adjust their expectations accordingly, and this does not usually cause any problems. Counselors also check in with clients to see how they feel about meeting over video at the start of the intake session. Any questions they have are answered, any hesitation or uncertainty is normalized, and counselors make sure to check in again at the conclusion of the session. If clients are not connecting well with their counselor over video, the treatment plan would be adjusted accordingly to ensure a modality that is appropriate for that client is used.

Clinical consideration is given to certain settings on the videoconference unit. For example, the “picture-in-picture” feature is used on the counselor’s monitor so that the counselor is cognizant of their body language and to ensure that forms or diagrams the counselor may hold up to the camera can be seen by the client. However, the “picture-in-picture” feature is turned off on the client side as it has been found to be very distracting to clients. Counselors vary in their preferences about settings for “zooming” the camera for a wide or narrow view of the client. Having the camera zoomed in on the counselor’s face gives the appearance that the counselor is “closer” to the client and makes the counselor’s facial expressions very clear to the client. But this also limits the client from seeing counselor hand gestures and other non-verbal communications. Alternatively, having the camera zoomed in on the client gives the counselor a better view of the client’s facial expressions, but limits the ability to see other non-verbal cues like body tension or nervous leg shaking. A wide-angle view of the client gives the counselor a better overall picture of the client’s body language, but it can become difficult to tell if a client is “silent” crying or see smaller facial expressions.

Continuing therapy in the maintenance stage has its own considerations, including an ongoing assessment of the appropriateness of telepsychology services as well as making sound clinical decisions in the event of an outage or emergency. During an outage, the counselor is trained first to solve problems with the technology and second to make an ethical decision about how to proceed with the client’s care that day. In some cases, it is in the best interest of all parties to reschedule the session for another day. However, counselors must be sensitive to issues that may indicate the client is not a good candidate for rescheduling and attempt to conduct a session over the phone if feasible. Although medical and psychiatric emergencies are rare, the TCC has protocols in place to handle these situations with on-site staff and local emergency resources.

Closing sessions and terminating therapy using telepsychology can present challenges, and trainees are prepared for the differences that may occur as compared to an
in-person session. At the end of an in-person session, the counselor can begin to signal the end of the session with their body language and movement toward the door. This dynamic does not replicate in the same way using videoconference or telephone communication. Some clients may repeatedly attempt to continue the discussion and counselors may have a difficult time intervening without feeling like they are “hanging up” on the client prematurely. The “lingering client” phenomenon can be especially prevalent in the final termination session since the counselor is not physically present to usher the client out the door, shake his or her hand, or accept a grateful embrace. Trainees are required to think in terms of client satisfaction with telepsychology services by collecting satisfaction surveys at termination.

Preliminary evaluation of the training program

Since the creation of the TCC, the clinic has aspired to train practicum counselors so that they may incorporate their experience in future positions. To assess the results of the TCC’s training on practicum counselors, a survey was sent to previous and current practicum students. All of the respondents reported that they agreed or strongly agreed that their experience at the TCC has resulted in: (a) improved ability to provide telehealth services, (b) improved ability to work with rural populations, (c) competence to provide telehealth services and to work with rural communities, and (d) feelings that they have made a positive impact on served communities. Eighty-eight percent of respondents reported that their practicum at the TCC resulted in competence and improvement in their ability to work with chronic mental health care issues. Additionally, 75% of the respondents agreed or strongly agreed that the TCC developed them to competently work in their desired setting. Regarding areas of improvement, two common themes were seen in the qualitative responses including limited competence in working with non-psychological barriers experienced (i.e. chronic physical health and lack of available resources) and difficulty collaborating schedules with remote clinics.

Discussion

Telepsychology is an evolving field that expands and changes with new advances in technology and the needs of the populations it serves. According to a survey by Intel, 89% of health care executives expect telemedicine to transform the US health care system in the next decade (Broadband Expanded, 2012). With this evolution in health care, clinicians in training ought to be equipped to provide services in the wake of these changes. The TCC training program is committed to providing training on the basic telepsychology competencies necessary for working with rural, underserved, and low SES populations via telehealth.

Training programs like this are valuable not just to the trainees, but to the underserved communities they help. The existence of health disparities demonstrates the unequal access people have to maintain or achieve health. Health disparities violate the ethical standards of the field, thus there is an obligation to correct them (Buki, 2007; Jones, 2010). Social justice requires counseling psychologists to have “… an expanded view of ethics that encompasses a sense of personal and social responsibility to help liberate those who are oppressed” (Buki, 2007, p. 708). This type of commitment to impacting inequitable systems must be brought into the training arena so the future
generation of counseling psychologists will begin to redefine and broaden their understanding of their professional roles. Telepsychology is undoubtedly one way to combat disparities in mental health care, specifically, and in health care, generally.

Calculable cost savings from providing telepsychology services in underserved areas include emergency department diversions, reduced transports of clients to health care facilities, and reduced inpatient mental health treatment. In a one-year period, 12 million emergency department visits involved a diagnosis related to mental health or substance abuse issues (Owens, Mutter, & Stocks, 2010). There is evidence that telepsychology services may reduce hospital utilization by 25% (Godleski, Darkins, & Peters, 2012). More difficult to measure benefits include improvements in quality of life, increased stability for clients and their families/caregivers, and productive days gained.

The reality is that health care systems cannot handle the demand for services and funding is increasingly scarce, but most departmental training clinics, Veterans Administration medical centers, hospitals, and university counseling centers do not give trainees the opportunity to understand the business side of psychological service provision. And psychology graduate programs do not always emphasize how changes in funding influence the psychological landscape (Wampold & Bhati, 2004). Psychologists do not always have the luxury of working with private pay or insurance companies in rural areas as they are working with individuals with very limited resources. This means psychologists must be fluent in grant writing and think in terms of policy-relevant work. It is likely that in this economic climate, counseling psychologists in a variety of settings—from private practice to academia—will be expected to generate payment and funding for their services and research.

State, national, and international associations are to be commended for creating aspirational guidelines and suggested competencies for clinicians providing telepsychology services (American Psychological Association, 2013; Canadian Psychological Association, 2006; New Zealand Psychological Association, 2011; Ohio Psychological Association, 2013). However, more work is needed in developing agreed-upon standards for training in telepsychology in order to cultivate a competency regimen that will equip more students to develop, implement, and evaluate telepsychology services. The training program and competencies described here can serve as a model for psychology doctoral programs, practicum/extern placements, internships, and post-doctoral fellowships to increase attention on telepsychology services in their training. In order to create this shift in training, the field must provide more examples of the development and implementation of these types of opportunities. Subsequently, outcome and evaluation studies of telepsychology programs should increase so that standards in telepsychology training can evolve. Training programs ought to evaluate trainee beliefs about training including satisfaction and applicability in future work, assess learning of telepsychology competencies and use behaviorally anchored measures when feasible, and investigate the impact of training on the larger context (i.e. communities served or the field of psychology generally; Kirkpatrick, 1994). In doing so, the field will create more informed clinicians equipped to provide quality service and fulfill the societal demand for telepsychology services.

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