Utilizing Telerehabilitation to Deliver Vocational Rehabilitation Services Remotely as an Alternative to Traditional Counseling

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Telerehabilitation has emerged as a promising option for vocational rehabilitation to address barriers with consumers. Pilot programs like the one described here are being used to remotely train counselors and serve consumers by providing treatment and support through technology. This program delivers training and service through an online portal that allows consumers specific options tailored to individual needs. Counselors have been trained in 43 states via webcasts, videoconferencing, and in-person trainings. Telerehabilitation can enhance employment outcomes by improving access for consumers, strengthening the counselor-consumer relationship, and increasing contacts with consumers. Counselors can also augment traditional services and increase engagement without increasing travel time and associated costs. Consumers are able to take a more active role in the vocational rehabilitation process, have a better understanding of VR services, increase their knowledge about what to expect of VR services, and be more accountable and involved in the progress and outcomes of VR services.

Many individuals with the most significant disabilities (MSD) have limited access to vocational rehabilitation (VR) services because of physical, cultural, and social barriers, such as mobility issues and communication difficulties (Iezzoni, Killeen & O'Day, 2006; Ipsen, 2012a; Pereira & Fortes, 2010; Rubin, Chan, & Thomas, 2003). Consumers with MSD have severe impairments that limit their capacity for employment outcomes, require ongoing assistance to find and maintain employment, and can be expected to require multiple VR services for an extended period of time. These barriers represent some of the most costly and time-consuming challenges for counselors and consumers to work through together, and in some cases, these obstacles are insurmountable, resulting in unsuccessful closures. However, in recent years, telerehabilitation (TR) has emerged as a promising option for VR counselors (Oswald, Huber, Wilson, & Embree, 2015) looking for innovative ways to address these barriers with consumers. Pilot programs like the one described here are beginning to be used for remotely screening and training VR consumers, as well as providing treatment and support through technology. The need for innovative evidenced-based practices (EBPs) that reduce access barriers and improve employment outcomes of individuals with disabilities was highlighted by the priorities of the National Institute on Disability and Rehabilitation Research (NIDRR; now the National Institute on Disability, Independent Living, and Rehabilitation Research, NIDILRR) and its sister agency, the Rehabilitation Services Administration (RSA).

This paper will highlight how TR can address the barriers to success that face consumers with MSD, in particular rural consumers with MSD. It will also explore the challenges most commonly faced by counselors adopting these new technologies in their practice and the methods used to address those challenges. Technology has been demonstrated to enhance the lives of individuals with disabilities and is a logical way to improve VR services (Riemer-Reiss, 2000; Tait, 1999; Wilson & Embree, 2012; Wilson & Wells, 2009) for consumers with MSD. These improvements offer a glimpse at the future of service delivery for VR consumers as well as highlight areas where counselors can begin training and preparing for that future. The drawbacks, limitations, and ethical considerations attendant with these new technologies will be explored in this paper, based on surveys that were conducted with VR counselors and consumers who participated in this VR portal project

Addressing Barriers Encountered by Rural Consumers of VR Services

Rubin, Chan, and Thomas (2003) discussed the pressures

on rehabilitation counselors to improve employment outcomes for consumers, with emphasis on consumers with MSD who often encounter difficulty traveling to the VR office for an appointment, experience discomfort in a typical classroom setting, and require multiple accommodations when receiving VR services. For individuals with MSD who live in rural areas, the challenges are even greater. Barriers encountered by persons living in rural areas include limited financial resources, severe isolation, inaccessible or unavailable transportation, long distances to urban centers, and lack of VR office accessibility (Iezzoni, Killeen & O'Day, 2006; Ipsen, 2012a). These barriers create a critical need to develop and evaluate innovative technology-based interventions that provide alternatives for hard-to-reach populations (Ipsen, 2012b).

Nearly 21% of the 59 million Americans residing in rural areas have a disability. However, rural consumers receive fewer VR services than do their urban counterparts because there is limited transportation and access to services (Ipsen, 2012a, b; Johnstone, Price, Bounds, Schopp, Schootman, & Schumate, 2003). Travel to provide services to rural consumers is costly and difficult to deliver on an as-needed basis. Due to these high travel costs, rural areas are susceptible to fiscal restrictions. All state VR agencies face economic constraints, resulting in VR counselors carrying larger caseloads with smaller case service dollars per client (Rehabilitation Services Administration, 2011a, b). Constrained VR budgets, large caseloads, and rising fuel costs create barriers for in-person VR service delivery in rural communities (Metzel & Giordano, 2007; Riemer-Reiss, 2000). The barriers faced by these populations make them ideal candidates for the development and evaluation of new technology-based resources.

Little is known about the effectiveness of online VR assessment tools and services for individuals with disabilities. The small corpus of literature includes research completed by the RRTC on Disability in Rural Communities (RTC: Rural) at the University of Montana and by the Substance Abuse Resources and Disability Issues (SARDI) Program at Wright State University (WSU). The SARDI Program conducted two projects offering online services, funded by the Substance Abuse and Mental Health Service Administration (SAMHSA), Deaf Off Drugs and Alcohol (DODA) (Moore, Guthmann, Rogers, Fraker, & Embree, 2009) and eCAM (Embree, Wilson, & Huber, 2013a, b; Fraker, Gentile, & Embree, 2012; Fraker & Starr, 2013; Guthmann, Titus, Fraker, & Wilson, Murphy & Wilson, 2013; Wilson, Moore, Embree, Fraker, Ford, Rogers, 2011; Wilson, Rogers, Fraker, & Embree, 2011).

The RTC: Rural explored basic technology (e.g., email) to assist people with disabilities living in rural communities achieving and maintaining employment (Ipsen et al., 2012). Researchers from the RTC: Rural's State of the Science (SoS) Conference in 2012 concluded that individuals living in rural communities face tensions between preserving a community's heritage and adapting to circumstances shaped by global forces, between exploiting resources in a way that treats the community as disposable or regulating them in a manner that supports and sustains the community, and between open and inclusive processes or closed and discriminatory practices (University of Montana Rural Institute, 2012). The RTC: Rural is also assessing the use of social media in VR to promote VR services and to help secure employment for consumers (Ipsen et al., 2012).

Addressing Premature Exits

Premature exit (dropping out of VR prior to successful closure) is a problem for VR agencies and consumers, and it is even more problematic among VR consumers with MSD (Johnstone et al., 2003; Ohio RSC, 2012). For VR agencies, the cost of premature exit is high, and for VR consumers it is associated with worse economic outcomes compared to those who persist to successful closure (Hayward & Schmidt-Davis, 2003). Prematurely closed cases are affected by how VR services are delivered and client characteristics such as disability type (Chan, Cheing, Chan, Rosenthal, & Chronister, 2006; Johnstone, Vessell, Bounds, Hoskins, & Sherman, 2003; Marini et al., 2008; McAweeney, Keferl, Moore, & Wagner, 2008). Premature closure is less likely to occur when the counselor-consumer relationship is strong (Keferl, Hewes, & Toriello, 1999). The Longitudinal Study of the Vocational Rehabilitation Services Program, Final Report 2: VR Services and Outcomes reported that, on average, each VR counselor has a caseload of 123 clients, spends less than 20 minutes per month counseling each client, and spends about 20 minutes per month per client on file management (Hayward & Schmidt-Davis, 2003). Building strong counselor-client relationships may be difficult due to limited client-counselor contact. This challenge is exacerbated for rural clients who have low rates of contact with their counselors because of distance (Arnold & Seekins, 1998; Arnold, Seekins, & Nelson, 1997; Ipsen, Rigles, Arnold, & Seekins, 2010; Rojewski, 1992).

The Longitudinal Study of the Vocational Rehabilitation (VR) Services Program, Third Final Report: The Context of VR Services revealed that the relationship between service intensity and outcomes was weaker for consumers in rural communities, primarily due to access barriers (Hayward & Schmidt-Davis, 2005). One strategy for reducing rural case costs is to provide a portion of client services remotely. For example, the RTC: Rural at the University of Montana makes use of asynchronous (e.g., email, Internet, fax) and synchronous (e.g., phone, cell phone, text messaging, videoconferencing) communication methods that reduce barriers related to time and distance (Ipsen, et al., 2012). Telerehabilitation offers rural VR consumers a means to communicate with their counselor between face-to-face visits, thus strengthening the counselor-consumer relationship.

Advantages of Telerehabilitation

Telecommunication methods are particularly advantageous for individuals who live far from service centers, for those who are reluctant to travel to large unknown cities, or for people who have difficulty traveling (Abbott, Klein, & Ceichomski, 2008; Chester & Glass, 2006; Gore & Leuwerke, 2008; Zelvin & Speyer, 2004). Positive counseling outcomes can be achieved with a variety of telecommunication methods, including phone (Baca, Alverson, Manuel, & Blackwell, 2007; Riemer-Reiss, 2000; Tait, 1999), email (Anthony, 2000; Riemer-Reiss, 2000), and real-time videoconferencing (Baca et al., 2007; Riemer-Reiss, 2000). Counseling outcomes are comparable whether delivered online or face-

to-face (Cook & Doyle, 2002; Ipson, et al., 2013; Kraus, 2004; Mallen, Vogel, Rochlen, & Day, 2005). In two reviews (Burdea, 2003; Rizzo, Strickland, & Bouchard, 2004), researchers identified the benefits and challenges of TR. Accommodations required by a wide range of physical, psychological, and cognitive disorders can be addressed by computer technology (Rizzo et al., 2004). Access to Internet VR resources and online delivery of VR services can increase client involvement and motivation, enhance outcomes, and reduce costs (Burdea, 2003; Rizzo et al., 2004). However, these emerging technologies are not without their technical, practical, and user-based challenges. Burdea (2003) identified lack of computer skills on the part of counselors and consumers, lack of support infrastructure, expensive equipment, and inadequate communication infrastructure for TR in rural areas as areas of challenge for cloud-based VR services. Providing online services to some consumers who live in remote areas will be difficult or impossible.

The primary challenges identified here (transportation barriers, limited financial resources, technophobia, increased caseloads, and reduced consumer engagement) can all be addressed through TR with existing technology. By delivering services remotely, travel time and costs can be eliminated for many consumers, and these services are increasingly available and can be delivered using existing hardware that consumers already have access to (e.g. mobile devices). As caseloads increase, it becomes ever more critical to find ways to increase consumer engagement without increasing counselor workload. In this area, TR offers the most promise because counselors can engage with multiple consumers asynchronously through TR in the same time they would have allotted to see a single consumer using traditional methods. Lastly, by training consumers through TR, they are actively practicing skills that prepare them for the employment opportunities of today and tomorrow.

In 2014, SARDI received a NIDILRR Field-Initiated Project (FIP) grant (# 90IF0081) to pilot a study using online training and tools to improve the quality and accessibility of VR services for those who struggle to succeed in traditional settings, in particular consumers with MSD who live in rural areas, and also to reduce costs for agencies already struggling to deliver services to swelling caseloads. This technology-enhanced program is based on a communication portal system with secure personal web pages. The VR portals allow counselors to go online and conduct individual sessions with consumers, assign tasks to be completed using the web portal resources, discuss results of assigned tasks, provide feedback regarding successful completion of assignments, and provide feedback regarding areas needing improvement. These web-based portals also allow consumers to access online educational resources and communicate with VR counselors and contracted providers through videoconferencing. The counselors are trained with webcasts on the same platform that they use to serve consumers, and they learn to tailor the portal to fit the specific needs of each consumer. TR is not for everyone, but it offers promise for consumers who have physical disabilities or transportation barriers that complicate traditional counseling.

Best Practices & Strategies for Telecounseling
Assistive Technology & Video Conferencing
Online Assessment
JSST, Job Search, Job Development & Job Placement
Career Exploration and Vocational Training and Educational Opportunities
Online Supported Employment and Job Coaching

Figure 1. Webinars. This figure lists the six 1-hour training webinars that are available on the VR online website.

Method

This ongoing FIP study is being conducted through the SARDI Program in the Boonshoft School of Medicine at WSU to explore the outcomes and cost effectiveness of online VR services offered in several Midwestern states with the ultimate goal of enhancing employment outcomes for individuals with significant disabilities by improving access to VR services that utilize TR. IRB approval was obtained to conduct this study. The target population included VR consumers with significant disabilities. The specific aims of the FIP project are to: a) implement online VR services that are delivered through personal portals that are optimized for use on cell phones, tablets, and computers; b) evaluate the feasibility, usability, and adoption of online services by VR counselors and consumers; and c) examine the feasibility and utility of online VR services to enhance employment of individuals with MSD.

As a first step, counselors are trained using the technology that they will employ with their consumers. Each counselor sets up a personal account on the website and completes a series of one-hour webinars about utilizing web portals and SARDI's online VR services (Figure 1). Web portals are personal web pages that VR counselors and consumers access with a unique username and password. These portals offer a variety of options to counselors and consumers, including links to online VR services and counseling sessions, homework assignments, online job listings, VR assessment tools, or social networking sites. The counselors are then trained in a small group-training workshop and have the option to complete individual follow-up training as needed. Each of the counselor training workshops contains a segment on teaching the VR consumer to use the online technology. Counselor training outlines the challenges specific populations face when using online programs. Therefore, the first line of technical assistance for consumers is expected to come from the VR counselors who work with consumers remotely.

Consumers access the site with a unique username and password that is set up with their counselor. Each time the consumer logs in, the consumer's site is generated dynamically. In this way, each consumer has a personalized experience that includes only those resources and communications appropriate to their needs as determined through communication with their counselor. Once logged in, a consumer can access resources and communicate via text messaging and videoconference. All communication is encrypted and stored on HIPAA compliant servers. As consumers access resources through the portal, counselors are able to monitor their progress at their convenience through their own portal page.

The *VR Online* portal complies with the "Unified Web Site Accessibility Guidelines" developed by the Trace Center at the University of Wisconsin-Madison. SARDI has also received "Bobby" approval for web sites that avoid graphics that create

obstacles to persons with sensory and cognitive disabilities, and they use the Web Content Accessibility Guidelines 2.0 (2008) to maintain the site's accessibility. Technology-based services can be intimidating or confusing for some counselors or consumers. To prepare for those challenges, multiple technical assistance processes are in place. SARDI staff members have extensive experience in providing online services to healthcare professionals and consumers with disabilities or who are Deaf. In addition to making the portal as intuitive and accessible as possible, this level of support is important to foster counselors' comfort and competence with TR as they learn the new skills necessary for delivering services remotely.

OmniJoin teleconferencing software is currently used as the delivery platform for the videoconferencing component of online VR services. A "software solution" was selected to provide secure videoconferencing capabilities, rather than a "hardware solution" like Polycom. A "hardware solution" requires that the user purchase the hardware (computer, monitor, and all accessories) directly from the company, and all parties on the teleconferencing service must use the hardware provided by the company. A "software solution" requires that the user purchase a software license to use the secure teleconferencing services, and any computer hardware can be used with the software. The "software solution" is less expensive and preferable because it can be optimized for use on any computer, tablet, or cell phone device. Lastly, using a web-based solution means that components can be upgraded or adapted to fit the needs of different state agencies that may already have videoconferencing solutions in place.

Throughout TR online training, in-person training and practice, and early implementation of TR with consumers, measures are in place to monitor consumer and counselor participation and satisfaction. These measures include satisfaction surveys during each phase of training, as well as satisfaction surveys after using the portal. For this report, SARDI staff members analyzed surveys completed by VR counselors who attended group trainings, by counselors who registered in our *VR Online* portal, and by VR consumers.

The responses of counselors to *VR Online* were collected in two ways. First, emails were sent to counselors who attended group trainings conducted by the authors but did not register in the online portal. These emails posed a single question, asking the counselors why they did not use the services available in the *VR Online* web portal. Fifteen counselors responded to this email.

Second, counselors who registered in the *VR Online* web portal were asked to complete online surveys regarding their experience with *VR Online* services and resources. To date, 408 counselors from 43 states have registered in the VR Online web portal (Figure 2). Of those counselors who registered in the web portal, 11 answered the general survey, 227 evaluated the Best Practices webcast, 158 evaluated the Assistive Technology webcast, 114 evaluated the Online Assessment webcast, 90 completed the survey for the JSST webcast, 65 completed the survey for the Career Exploration webcast, and 57 evaluated the Supportive Employment webcast.

An online survey was administered to individuals with disabilities in southwest Ohio to assess the acceptability of TR services to these populations. Inclusion criteria included being a VR consumer with significant disabilities, ages 18 and older, in southwest Ohio; exclusion criteria included being under the age of 18 and a non-VR consumer. These participants were treated in accordance with the ethical principles of the American Psychological Association; and IRB approval was obtained to conduct this study. This survey focused on VR consumers' interest in TR services and access to computers and Internet connectivity, and it was completed by 84 Ohio vocational rehabilitation (VR) consumers with the assistance of their counselors. Of the participants, 35% had developmental or intellectual disabilities, 17% had mental illness, 13% had a visual disability, 13% had mobility-related disabilities, 11% were deaf/hard-of-hearing, 7% had learning disabilities, 3% had traumatic brain injury (TBI), and 1% had medically related disabilities.

Results

Counselor Responses to Online VR Services

The 15 respondents who attended the group training but did not register in our online portal were asked why they didn't use the *VR Online* services. Twelve gave a single reason, and three gave multiple reasons for why they never logged into the online portal. Their responses fell into six categories: 1) the counselor was not comfortable using the portal or perceived that it was too difficult (22% of responses); 2) the counselor didn't have the time to take on a new task (17% of responses); 3) the gap between training and opportunity to use the web portal was too long (17% of responses); 4) their clients did not have access to computers and/or internet service (17% of responses); 5) the client was resistant to using online services (17% of responses); and 6) online services were not suitable for their clients (10% of responses).

The 11 counselors who completed the survey were asked what they liked and what they didn't like about VR *Online* services. The list of reasons for liking the *VR Online* web portal was short. Only eight of the eleven counselors gave reasons for liking the web portal and its services: 1) counselor could give client information tailored to the client's needs and interests (25% of responses); 2) counselor was able to meet on OmniJoin with people whom they were not otherwise able to meet (25% of responses);

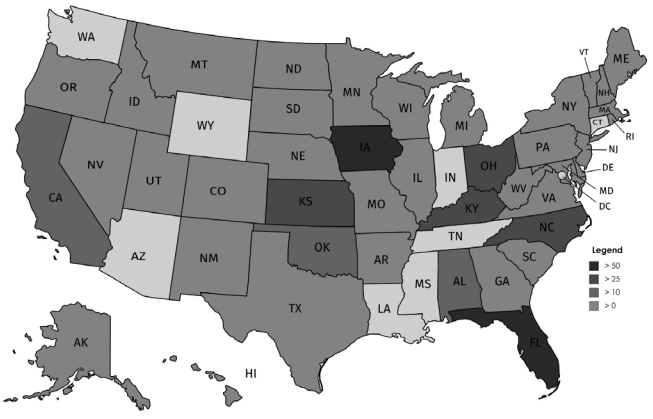


Figure 2. VR counselor participation. This figure illustrates the density of VR counselor participation in online training by state.

3) counselor liked the availability of an alternate form of communication (12.5% of responses); 4) using OmniJoin reduces travel (12.5% of responses); 5) comprehensive resources were available in the portal (12.5% of responses); and 6) liked videoconferencing (12.5% of responses).

Reasons for not liking the online web portal's services were given by all 11 counselors who answered this general survey. These included: 1) don't like OmniJoin because it is too cumbersome (40% of responses); 2) the online web portal takes too much time and is extra work (25% of responses); 3) too much time had elapsed since the training (9% of responses); 4) the client has limited or no access to a computer or internet (6.5% of responses); 5) the counselor prefers texting, email, or more well-known means of teleconferencing ("Face Time" or "Go To Meeting," for example; 6.5% of responses); 6) their clients were not suitable for online services (6.5% of responses); and 7) online meetings were perceived as not as satisfying as face-to-face meetings (6.5% of responses).

Seven counselors offered suggestions for improving our *VR Online* services. Five of the seven counselors suggested improving the usability of the portal. This suggestion was most likely related to the firewalls put in place by the state VR systems, which required that the counselors log into the state system and then log into the *VR Online* web portal. Private conversations with counselors revealed that most complaints about the VR *Online* system being too cumbersome were related to getting through the firewalls erected by state VR security technicians before logging into the *VR Online* system.

In addition to asking about reasons for liking and not liking the online portal, the survey also asked the counselors to identify which resources (webcasts, resource assignments for clients, videoconferencing, online messaging) on the *VR Online* portal they used. Most counselors (64%) had viewed the webcasts for continuing education credit. Only 27% used the videoconferencing feature, and less than 10% used the online resources for consumers or the online messaging features.

Other questions on the survey asked the counselors: 1) if they were satisfied with the *VR Online* services; 2) if the *VR Online* services increased their job efficiency; and 3) if they were satisfied with technical support for *VR Online* services. These questions were answered on a five-point Likert scale. Pearson *r* correlational analyses were conducted to measure relationships among *VR Online* resource use and responses to these last three questions. A significant positive correlation was found between satisfaction with *VR Online* services and perceived increases in job efficiency, with counselors expressing more satisfaction with the *VR Online* web portal when they perceived it improved their job efficiency, $r(11) = .827$, $p = .002$. Significant positive correlations were also obtained between using the portal to assign resources to client and: 1) satisfaction with the *VR Online* services, $r(11) = .606$, $p = .048$; and 2) increases in job efficiency, $r(11) = .683$, $p = .021$. Counselors who assigned online resources in the portal for their clients expressed the most satisfaction with *VR Online* services and perceived that the portal improved their job efficiency.

The webcasts were generally well received by the counselors who viewed them. Table 1 shows the response of the counselors to each webcast. The number of respondents ranged from 227 for the first webcast (Best Practices) in the series to 57 for the last webcast (Supportive Employment) in the series. In every case, to every question, over 75% of the counselors who responded to the survey reported "agree" or "strongly agree" to each evaluative statement.

Table 1.

Percentage of Agree or Strongly Agree Responses from Counselors to the Four Evaluation Statements

Statement	Webcast Title					
	Best Practices (n = 166)	AT & VC (n = 117)	Online Assessment (n = 122)	JSST (n = 81)	CX & Voc.Ed (n = 59)	SE & JC (n = 46)
1	84.9	85.5	91.8	90.1	86.4	84.8
2	78.9	82.9	91	80.2	84.7	76.1
3	84.3	82.9	90.2	88.9	83.1	82.6
4	80.1	81.2	82	76.5	79.7	78.3

Note. Statement refers to the evaluation statements that the counselors responded to after viewing the webinars. Counselors replied to the following statements: 1) Content of webcast was relevant to the practice of VR Counseling, 2) The information in webcast increased my knowledge, 3) Content in webcast was well organized, and 4) The webcast was of value based on my time investment.

Consumer Responses to Online VR Services

Only 26% of the VR consumers surveyed were interested in receiving online VR services, and 74% were not; 43% had access to computers and Internet, and 57% did not. When comparing disability groups, 100% of deaf individuals, 62% of individuals with mobility-related disabilities, and 40% of individuals with learning disabilities wanted online services; the other groups were not interested in receiving TR services ($X^2 = 40.6$, $p < .001$). Chief reasons for refusing to use TR services included cognitive inability (consumer was not able to use a computer) (21%), dislike for computers (20%), preference for face-to-face meetings (19%), and no access to computers/internet (14%).

Discussion

Although the current project focuses on improving access for rural populations and increasing accessibility for consumers with disabilities, the long-term goal is to improve access to VR guidance and counseling for all consumers, strengthen the counselor-consumer relationship, increase face-to-face contact with consumers, and enhance employment outcomes. By being able to remotely provide some or all of the services traditionally done in-person, counselors can increase engagement with consumers who may not have access to traditional services (Fredrik, Langi, & Balcazar, 2016; Riemer-Reiss, 2000; Tait, 1999; Wilson & Embree, 2012). Counselors can also augment traditional services and increase engagement without increasing travel time and associated costs. Consumers are able to take a more active role in the VR process, have a better understanding of VR services, increase their knowledge about what to expect of VR services, and be more accountable and involved in the progress and outcomes of VR services (Fredrik, Langi, & Balcazar, 2016; Riemer-Reiss, 2000; Tait, 1999; Wilson & Embree, 2012).

However, this study demonstrates that TR services are not universally acceptable to all populations, especially those with certain disabilities. Individuals who are deaf are accustomed to using videophones, and the leap to online counseling and other TR services is a simple move for them (Johnson, 2004; Moore et al.,

2009; Titus & Guthmann, 2011; Wilson & Wells, 2009). Individuals with mobility and/or transportation issues may also welcome the opportunity to receive VR services at home. However, most individuals with disabilities who were sampled in our limited survey were not comfortable with receiving TR services, a finding that surprised the authors. Because this is a pilot study, no published data exist to corroborate these results. Leahy and colleagues have reported a need for more research to identify evidence-based practices in vocational rehabilitation and the suitability of these practices for all individuals with disabilities (Leahy, Chan, Lui, Rosenthal, Tansey, Wehman, et al., 2014). Preliminary research has identified benefits of online services for individuals with neurologic disabilities and those with low vision (Ihrig, 2016; Savard, Borstad, Tkachuck, Lauderdale & Conroy, 2003).

One of the most important lessons learned has been the need for training early in a counselor's career, although TR is so new that there are no corroborating published data in the literature. Blossoming caseloads and increasingly complex challenges can leave counselors with little time to learn new systems and techniques despite the benefits to themselves or their consumers. As such, training graduate students and counselors during their academic and educational years before beginning their careers is one way to insure that teams are equipped with the most up-to-date and efficient tools to deliver services to their consumers. In addition, agencies adopting new technologies must do more than offer introductory training for counselors who are not already familiar with technology. Put simply, if a counselor is to work effectively with a consumer to prepare them for the jobs of the future, they must themselves be preparing for that future. To make that possible, agencies must assess and, when necessary, improve the training options available for counselors at all levels of the organization.

Limitations

Limitations of the study included the small number of counselors who participated and the time needed to begin using the portal. Unfortunately, research in TR has long been hampered by small numbers of participants in published studies (Wade & Wolfe, 2005). With respect to the time lag between training and use of the portal with VR consumers, counselors were trained as soon as they were available, but this was often several months prior to the agency's ability to begin using the portal. This was not due to technical, training, or staffing needs, but most often simply organizational inefficiency.

Recommendations

The benefits of TR to VR counselors and consumers must be abundantly apparent to those providing services. Without buy-in from supervisors, counselors, staff, and consumers, even the most useful tool sits unused. For this reason, it is important to include resources and training that highlight the benefits to everyone involved from the beginning of implementation and provide counselors sufficient time at the onset to master the skills that will make TR as useful as it can be. For many counselors, the best time to learn and master TR skills may be during their graduate training when their time is more readily available and their focus and mindset is more forwardly-thinking to embrace the paradigm shift that is needed for counselors to fundamentally embrace and implement TR services. This is aligned with core standards updated in 2016 by the Council for Accreditation of Counseling and Related Educational Programs (CACREP, 2018), section 2.

Future Research

Future studies should include more counselors and in a larger variety of states. Further integration with existing systems (e.g. existing videoconferencing, schedulers, Aware records management software, etc.) should also be explored to streamline the counselor experience and improve efficiency. Future research could be done to explore ethically and culturally relevant strategies for the strength of consumer/counselor relationships in TR compared to traditional VR settings, in keeping with CACREP standards for counseling and helping relationships (2018). The reluctance of some consumers to use TR must also be addressed. For some consumers, TR may never be appropriate. However, many consumers can benefit from exposure to online VR services because the majority of job experiences will require familiarity with computers and the Internet. By better preparing them to use computers and other technologies TR can simultaneously improve efficiency while using the technology that consumers will find in the workplace. Making use of TR services can be an important avenue to a more satisfying job seeking experience for VR consumers and counselors.

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