Telehealth Interventions in Rehabilitation Psychology:
Postcards From the Edge

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This special section grew out of a symposium at the 112th Annual Convention of the American Psychological Association in Honolulu, Hawaii, that presented innovative telehealth interventions in rehabilitation from around the world. Several presentations represented the cutting edge of science and technology for which only preliminary data were available—hence the subtitle “Postcards From the Edge.” The collected articles represent emerging approaches by pioneers in telehealth rehabilitation and are intended to inform the clinical and research efforts of others who are grappling with the particular blend of psychological and technological issues that these interventions provide.

Keywords: telehealth, telehealth interventions, rehabilitation technology

The three articles included in this special section address three very different rehabilitation populations: adults with schizophrenia, caregivers of adults with Alzheimer’s/dementia, and children with traumatic brain injuries and their families. The investigations also use three very different telehealth technologies to address the psychosocial and rehabilitative needs of these populations. The approaches described range from commonplace technology that most individuals use on a daily basis (e.g., telephones and teleconferencing) to technologies that until recently were prohibitively expensive (e.g., videoconferencing). What these researchers share is a dedication to discovering what best helps populations most in need, a willingness to explore and experiment with new rehabilitation technologies, an empirical mindset applied to small sample sizes, and a critical approach that addresses the weaknesses as well as strengths of these technologically based interventions.

Telehealth interventions may be particularly valuable for rehabilitation populations who require long-term care over a period of months or years, and who may have difficulty accessing care owing to physical difficulties or geographic constraints. As a number of the authors have noted, rehabilitation facilities are typically located in cities or urban areas, drawing patients from a wide geographic area. As a result, individuals may be prevented from returning to the rehabilitation facility for outpatient follow-up treatment as often as desired or needed. Conversely, the individual’s home community may lack knowledgeable providers. The interventions described by Glueckauf et al. (2005), Rotondi et al. (2005), and Wade, Wolfe, Brown, and Pestian (2005) address this barrier by delivering treatment directly in the individual’s home through various communication technologies (videoconferencing, Internet, and telephone). Thus, interventions such as these hold the promise to improve access to specialized care for individuals who most need it.

However, distance and convenience are by no means the main or only reasons for telehealth interventions. At their heart, telehealth interventions in rehabilitation psychology are those that use interactive audio, video, or data communications to improve psychological functioning and well-being. Thus, some researchers and practitioners are turning to technology to offer therapeutic experiences unavailable through any other means. For example, the intervention described by Wade et al. (2005) provides families with access to multimedia education and training regarding brain injury through a self-guided Web site. Although telehealth interventions may be a boon for rehabilitation populations who would benefit from enriched experiences or have difficulties accessing care, they also pose a number of unique challenges in terms of their physical, cognitive, and technological demands. Thus, the issue of the goodness of fit between one’s approach and the needs of the target population becomes more salient with rehabilitation populations that have cognitive or physical difficulties that limit their ability to use some technologies. Two of the populations considered here, individuals with schizophrenia and children with traumatic brain injury, experience cognitive impairments arising from their diagnoses that may pose challenges in interacting with computers or Web-based technology. The third population, caregivers of individuals with Alzheimer’s, is often elderly and may lack familiarity with even commonplace technologies such as computers and e-mail. Each of the authors considered this critical question of the match or fit between the technology or modality and the target population and arrived at different technological solutions.

After several studies of Web-based interventions, Glueckauf et al. (2005) opted for the relatively low-tech approach of conferencing via standard telephones. The authors predicated this choice on findings from focus groups and previous research indicating that online, computer-based interventions may be less acceptable for the elderly caregivers of adults with Alzheimer’s disease. Their decision underscores the trade-off between the advantages of...
emerging technologies and the offsetting issues of usability and acceptability with particular populations.

The studies of Rotondi et al. (2005) and Wade et al. (2005) suggest that there are costs as well as benefits in using online technology with rehabilitation populations. Rotondi and colleagues noted that the Web design adaptations that were implemented for the persons with schizophrenia might have made their Web site more difficult for their support persons to use. In a similar vein, Wade and colleagues reported that children with traumatic brain injury rated Web-based video conferences as more difficult to use and as less helpful than their noninjured family members. These findings suggest that clinicians and researchers wishing to adopt telehealth approaches need to be sensitive to the interaction between the technology and the target populations, particularly when more than one population is targeted in a single intervention.

Taken together, these studies suggest a number of important issues for future work on telehealth in rehabilitation psychology. The first among these are the relations among clinical populations, treatment interventions, and technological platforms. The research presented here clearly suggests that “high tech is not always best.” It also indicates that sophisticated technologies can be used to provide effective therapeutic experiences unavailable through any other means. Developing theoretically and empirically based principles for fitting particular technologies to specific treatments and populations is clearly an essential next step for the field of rehabilitation psychology. In the future, we look forward to randomized clinical trials and other systematic research with large samples and sophisticated designs to address these issues. We trust that those larger studies will benefit from these postcards from the edge.

References


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