Development of an Online Suite of Occupational, Substance Abuse and Mental Health Assessment Tools to Enhance Employment of Individuals who are Deaf

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I. Abstract

Two NIDRR-funded projects that innovated services for deaf individuals will be presented. The F-I-B grant assessed a telemedicine-delivered program that provides treatment/recovery services to deaf individuals. A currently funded DRDP project that develops VR assessment tools in ASL will be described. Demonstrations of the technology and assessments will be provided.

II. Description

The need for improved VR services for individuals who are deaf or hard of hearing is undeniable. In the US, individuals with a severe to profound hearing loss are two to three times more likely to drop out of high school than hearing students, which impacts future earnings as well as employment status. Additionally, physical, cultural and social barriers (such as communication difficulties) limit access to VR services. The need for skilled test administrators who understand Deaf culture and interpreters familiar with VR services have been noted by numerous experts who work with VR consumers who are deaf. Very few career exploration, substance abuse, or behavioral health assessment tools used in VR have been adapted for use with Deaf individuals via signed administration, creating a need for VR and behavioral health assessment tools to be available in American Sign Language (ASL) and validated for deaf consumers.

In 2011, the Substance Abuse Resources and Disability Issues (SARDI) Program in the Boonshoft School of Medicine at Wright State University received a NIDRR Field-Initiated Research grant to evaluate whether a technology-assisted e-therapy treatment program called Deaf Off Drugs and Alcohol (DODA) was effective in treating deaf individuals with substance use disorders (SUD). The ultimate goal was to establish a culturally appropriate, evidence-based e-therapy practice that would serve as the gold standard for SUD treatment for the deaf. DODA’s effectiveness was analyzed using five outcome measures: the Substance Abuse Screener in American Sign Language, Addiction Severity Index, Satisfaction with Life Scale, Rosenberg Self-Esteem Scale, and Beck Depression Inventory, which were administered before SUD treatment and six months after. The target population included deaf individuals with SUD. The intake and six-month follow-up scores on the five selected outcome scales were compared between deaf individuals enrolled in the culturally appropriate DODA program and deaf individuals receiving SUD services in specialized residential treatment setting for deaf individuals, to examine whether the DODA program was as effective as in-patient SUD treatment settings. No differences between individuals enrolled in the DODA program and those in residential treatment programs were found for any of the outcome measures in analyses of variance.

In 2014, SARDI partnered with national specialists in VR and Deaf culture to ameliorate access barriers to VR services and enhance employment outcomes for individuals who are deaf, funded by a Disability and Rehabilitation Research Project (DRRP) grant. The goals of the project include: 1) translation of seven widely used VR instruments into ASL and the validation of these assessment tools for use with VR consumers who are deaf; and 2) development, field testing, and online evaluation of a vocational assessment that will be developed specifically for deaf clients in ASL. Until now, an assessment of this type has not existed. The five-step process of validation of these assessment instruments for use with VR consumers who are deaf will be described, and video demonstrations of the technology used in DODA and the online assessments in ASL will be provided.

III. Advisory Panel

An Advisory Board consisting of professionals who work with deaf and hard of hearing clients in VR, mental health and other social service areas.

An Expert panel made up of individuals who work with deaf and hard of hearing clients in VR, mental health and other social service areas with expertise in assessment and/or have been involved in previous translation projects.

IV. Instruments

Instruments being translated and validated into ASL include:

- Beck Depression Inventory (BDI)
- Drug Abuse Screening Test (DAST)
- Directions for the Wide Range Interests and Occupation Test - Second Edition (WRIO2)
- Rosenberg Self-Esteem Scale (RSES)
- The Satisfaction with Life Scale (SWLS)
- The O*NET Short Form Interest Profiler (web-based 60-item)
- Global Appraisal of Individual Needs Short Screener (GAIN-SS) (field testing)
- The Substance Abuse Screener in American Sign Language (SAS-ASL) (field testing)

Once normed and validated, the assessments used for this project should have the following characteristics:

a) normed for the deaf and hard of hearing population;

b) can be administered without the use of interpreters;

c) does not require a high level of reading;

d) does not require a high level of written English;

e) accessible online to any deaf and hard of hearing VR consumer, regardless of their location; and

f) will not be administered and interpreted by culturally insensitive clinical personnel.

V. Forward Translation

Members of the Deaf Community
- Bilingual ASL and English
- Native language is ASL
- Learned two languages in different cultures
- Knowledge and experience working in mental health and substance abuse areas

Members of the Hearing Community
- Bilingual English and ASL
- Native language is English
- Learned two languages in different cultures
- Extensive experience in substance abuse treatment and mental health with Deaf

VI. Next Steps

Cognitive Interviewing/debriefing - We will conduct cognitive interviews after the revised videos of the ASL assessment instruments have been completed to obtain consumer feedback on the understandability of individual items. We will recruit 20 deaf native signers and ask them to complete the online assessment instruments and then interview them using a structured protocol. This interview is designed to elicit user feedback on the ease of navigating the website and the clarity and understandability of each item.

Field Testing - We will evaluate measurement properties (reliability, construct validity, internal consistency) of each instrument using a sample of 300 deaf persons not receiving VR services (general population data) and 150 deaf VR consumers. Participants will complete all instruments online.

Dissemination: Preliminary findings will be disseminated via conference presentations and the submission of articles to professional journals.

Training: We will conduct a variety of training’s including webinars targeted to VR counselors about the suite of online VR tools and we will work with the regional DBTACs and TACE centers to host trainings for VR counselors and offer CRC continuing education credits.

VII. Funding Sources

National Institute of Disability and Rehabilitation Research (NIDRR)
Disability and Rehabilitation Research Projects (DRRP)