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The Substance Abuse in Vocational Rehabilitation-Screener in American Sign Language (SAVR-S-ASL) for Persons who are Deaf

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THE SUBSTANCE ABUSE IN VOCATIONAL REHABILITATION–SCREENER INAMERICAN SIGN LANGUAGE (SAVR-S-ASL) FOR PERSONS WHO ARE DEAF

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Abstract

The purpose of this article is to describe the development and planned validation of an ASL version of the Substance Abuse in Vocational Rehabilitation – Screener (SAVR-S). The SAVR-S is a 43-item, self-report instrument used to identify people with alcohol and/or drug problems was especially developed for persons with disabilities. Difficulties related to the use of the English language instrument with Deaf individuals – such as reading level, English terms/idioms, instrument length, and regional terms – prompted a project to develop an ASL version of the SAVR-S with funding from the National Institute on Disability and Rehabilitation Research (NIDRR). A multi-site team composed of professionals in the field and Deaf consumers completed the translation of the instrument using state-of-the-art translation methodology. Data from Deaf individuals in vocational rehabilitation was used to assess the quality of the translation.

Introduction

Within the Deaf and Hard of Hearing communities, there is a lack of awareness about the problem of substance abuse. Many Deaf individuals have not had access to efforts to educate people about the dangers of drug use and abuse. Research methods developed to gather this information in hearing communities are often ineffective among Deaf people for a variety of reasons, which include the following: distrust of predominantly hearing researchers; fear of ostracism and labeling; and the inaccessibility of assessment instruments due to language limitations (Guthmann & Sandberg, 1997).

Assessment of substance abuse problems when working with Deaf individuals presents difficulties since there are no formalized assessment tools normed or specifically designed to use with this population. The assessor who fails to explain concepts and/or vocabulary that may be unfamiliar risks compromising the validity of the assessment (Guthmann & Sandberg, 1995). With no valid instrument to identify the signs and symptoms of drug and/or alcohol use with Deaf individuals, their needs go unrecognized. Most assessors are unfamiliar with how to work with Deaf people and are even less

likely to be fluent in American Sign Language (Guthmann & Sandberg, 1998). There is a lack of trained professionals in the area of substance abuse which creates additional barriers related to identifying and treating Deaf individuals. Because deafness is a low incidence disability and there is a shortage of trained professionals in this area, evidence of need related to treating Deaf individuals has also been lacking.

Estimates of substance use disorders in the Deaf community assume that these problems occur at the same rate as in the hearing population. However there are no good estimates of the prevalence of substance use disorders among the Deaf population because no substance abuse screening or diagnostic instruments have been validated in American Sign Language (ASL), and few practitioners can sign or know the cultural norms of Deaf people. In addition, substance abuse and chemical dependency services for the Deaf are grossly inadequate or even non-existent in most communities. Deaf people live in a closed community and are reported to be unwilling to discuss sensitive topics such as alcohol and drug abuse with outsiders (Guthmann & Sandberg, 1995).

The average English literacy of Deaf high school graduates has an average reading comprehension at the fourth grade level (Gallaudet Research Institute, 1996). A study using two traditional assessments, the CAGE and AUDIT (Alcohol Use Disorders Identification Test), indicated Deaf individuals have difficulty understanding questions on these most basic tools (Alexander, DiNitto, & Tidblom, 2005). Written tools are not always the most appropriate method for administration of assessments with many Deaf individuals. An alternate option may be the use of a sign language interpreter when the interviewer is not able to communicate directly with the individual through their preferred mode of communication. However, the use of a third party can change the dynamics of the interview and does not ensure the quality or validity of the interpretation (Guthmann & Sandberg). The Alexander, DiNitto & Tidblom study reported confusion still existed even after being shown signs for words and interpretations of phrases. Nuances specific to one language may not exist in the other (Crowe, 2002). In relation to wording, another problem for the individual may be the unfamiliarity of chemical dependency language (Guthmann & Sandberg).

The most feasible response to the limitations mentioned is to develop a tool in the primary language that also takes cultural considerations into account.

Even more crucial than the assessment tool or form itself is the manner in which the assessment interview is conducted. It is crucial that the interviewer take into account the possibility of the lack of knowledge of terminology and other communication and cultural factors (Guthmann & Sandberg, 1998). Another preliminary investigation (Steinberg, Lipton, Eckhardt, Goldstein, & Sullivan, 1998) demonstrated that a computerized version of a signed mental health diagnostic inventory could be used accurately and effectively with Deaf clients.

The Substance Abuse Subtle Screening Inventory (SASSI-3), a 75-item, self-report instrument used to identify people with alcohol and/or drug problems, was developed by the SASSI Institute. A project funded by National Institute on Disability and Rehabilitation Research (NIDRR) focuses on the development of a new substance abuse screener based on the SASSI-3, the Substance Abuse in Vocational Rehabilitation – Screener (SAVR-S). The original items on this instrument, with the exception of medication abuse items, were taken from the SASSI-3. To date, there is no formal substance abuse assessment/screening instrument specifically designed with carefully selected sign language to use with the Deaf population.

The authors recognized the need to develop a version for use with Deaf individuals, namely the Substance Abuse in Vocational Rehabilitation-Screener in American Sign Language (SAVR-S-ASL).

Method

The Rehabilitation, Research and Training Center on Substance Abuse, Disability and Employment (RRTC) at Wright State University is adapting the SAVR-S for consumers of Vocational Rehabilitation (VR). The process included the validation of the instrument with approximately 1,000 VR consumers in three states. Due to issues related to readability, wording, regional signs and instrument length, it was determined that the SAVR-S may not be effective with many Deaf individuals. Additional funding was requested and received from the funding source, NIDRR, to develop the SAVR-S-ASL. The RRTC contracted with Dr. Debra Guthmann, the founding director of the Minnesota Chemical Dependency Program for Deaf and Hard of Hearing Individuals, to assist in the adaptation of the SAVR-S. The Minnesota program was one of the first inpatient programs to provide specialized treatment services for chemically dependent Deaf and Hard of Hearing individuals. With funding

from RRTC, Dr. Guthmann arranged to have four Deaf professionals who were native ASL users form a Linguistics Committee to assist with the adaptation of this instrument.

The original, long version of the SAVR-S is a 75-item, self-report instrument used to identify people with alcohol and/or drug problems. This includes 46 general, true/false statements as well as 12 alcohol and 17 drug questions. The alcohol and drug questions include requiring a response indicating how often a situation has occurred in the past 12 months, including "never," "one or more times," or "repeatedly." To determine the most appropriate way to interpret each question into ASL, the committee met multiple times over a period of one year to review the SAVR-S questions item by item and to come to agreement about how to interpret each item into ASL. The proposal to revise the SAVR-S included doing a translation into ASL which followed a yes/no format (instead of true/false) and reducing the number of items.

The committee then met in a television studio for two sessions to create a CD-ROM ASL version of the SAVR-S utilizing a Deaf native signer. Directions for each section were signed and the concept of time, experiencing in "the past 12 months," was set as a marker. The term "drugs" was clarified to include "misuse of prescription drugs" and "use of drugs." Ambiguous terms were expanded (e.g. "the shakes"). The producer edited the CD and created an interactive version to be used for the back translation process.

The most rigorous method for creating a semantically accurate document is to include several translation steps, including "back translation." Research reports success in the process of back translation in cross-cultural translations of assessment tools (Brislin, 1970). This entails re-interpreting the ASL into English by persons who communicate in ASL for the purpose of evaluating equivalents between the original SAVR-S items and the translated ASL version. Individuals were recruited nationally to back-translate the SAVR-S-ASL measure to ensure that sign selections were not regional. Participants were all Deaf or children of Deaf adults. They were given a copy of the CD with directions to review and write down each question in English (conceptually).

A total of 37 persons attempted the back translations. They represented 19 states and multiple regions. Ages ranged from 24 to 62 (mean=43 years). All participants were Deaf with sign language as the preferred mode of communication. A total of 22 were female and 15 were male. Educational level consisted of five individuals with high school degrees, six with bachelor's

degrees, and 21 with master's degrees. Racial composition was 84% Caucasian, 9% Hispanic, and 6% Asian. This sample may not be representative of the majority Deaf population, as respondents had completed higher levels of education and were working in a professional Deaf signing environment.

Sampling Strategy and Measure Evaluation

A purposive sampling was used to recruit Deaf staff at the California Schools for the Deaf in Riverside and Fremont via e-mail and word of mouth. Three of the respondents were acquaintances of staff and were not employed at the schools. It was explained that participation in the project was voluntary and confidential. While there was no monetary compensation for school employees, they would be allowed to use work hours to complete their responses. Non-employees were compensated with 25 dollars for their participation. Each participant received a cover letter explaining the purpose of and specific instructions for the study. It was emphasized their involvement would help create an assessment to work with deaf individuals, not to critique the participants' English skills.

The CD of the ASL version was distributed to each department and rotated by staff to be self-administered. The participants did not have access to the original text version of the SAVR-S The process of watching the questions and writing the translations took some people several hours to complete due to the length of the instrument (75 questions) and there was no time limit. Participants were requested to return their responses within three weeks. Unreturned responses were followed up with e-mail remainders. Results were analyzed by three raters. Thirty-two completed translations were collected and analyzed. Equivalency between the original and translated version was evaluated. The author of the instrument at the SASSI Institute and the RRTC project director at Wright State were also involved in this process, comparing the data to their own studies used with VR participants. Recommendations were made for translations to be kept, revised or eliminated.

Of the three sections of the SAVR-S-ASL, the general questions appeared to be most clearly understood. In the alcohol and drug sections, there was confusion with the concept of "use in the past 12 months." Additionally in the drug question section, there was confusion with the "misuse of prescription drugs." Additional misunderstandings and confusion included: "never" versus "ever," frequency of use (1-4 times/5 times or more), description of

symptoms (e.g., flashbacks, hallucinations) and the implication of judgment (disapproval).

Ultimately, 42 questions were kept, including some revisions for a draft version of the SAVR-S-ASL. The original Linguistics Committee met to review the results from the back translation, view the original CD and then made recommendations for revisions. The committee also received feedback about the first CD that indicated the need to redo the questions, and based on that, decided to sign all 42 questions again. Part of the feedback suggested that the facial expressions used should be more neutral, with some of the signs including the hand covering the mouth. Upon review, the committee had suggestions for using different signs for some of the questions. The committee members again met in the television studio with the producer to make the new CD. The second version was sent to 18 sites, targeting a total of 100 completed instruments.

Next Steps

In order for the ASL version to be utilized as a psychometrically sound instrument, it must be validated. Sensitivity and specificity of this instrument must be established if it is to be utilized in a manner similar to the non-ASL SAVR (e.g., wide-spread screening of VR applicants). In addition, the field trial of the initial ASL instrument indicated that it was too long to be effective as a screening tool. The current instrument has 42 items, and field sites indicate that an ideal length would be no longer than 25 items. The method for accomplishing both of the above tasks is to validate (and cross-validate) the instrument, conduct classic item analysis, and calculate sensitivity and specificity on the core items that are retained. As in any activity of this nature that addresses the needs of the Deaf population, the effort will necessarily be labor-intensive.

Since no other psychometrically sound instruments exist for establishing a DSM IV Substance Use Disorder diagnosis for persons who are Deaf, clinical interviews need to be conducted by qualified staff as a "gold standard" for validating the SAVR-ASL. Discussions with the research team, including Drs. Guthmann, Heinemann, and Miller (the latter is the research director of the SASSI Institute), indicate that a validation can be conducted on the SAVR-S-ASL with an N of 200 Deaf respondents. This is based on the assumption that purposeful sampling will provide approximately one half of the respondents as

criterion positive (e.g., have a DSM substance use disorder). Research with the SAVR-S over the past year indicates that within VR settings, approximately 22% of all persons interviewed will be criterion-positive; therefore, we will supplement the sample with persons who are Deaf and are attending substance abuse treatment settings. There is a high level of perceived need for this instrument in the field. The positive involvement the project received reflects the reputation and linkages to the field of the staff involved with this project.

Currently, supplemental funding is being sought to enable the 42-item draft SAVR-S-ASL to be administered to 200 individuals along with a clinical interview to assign a DSM diagnosis with the goal of reducing the overall number of questions. Once the final items are selected for inclusion, Tree House Video, the producer of the instrument to date, will be provided with this information so that the final version of the instrument can be converted to CD.

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