The Substance Abuse in Vocational Rehabilitation-Screener in

American 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, and it 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

The Substance Abuse Subtle Screening Inventory (SASSI-3) was developed by the SASSI Institute, and it is a 75 item, self-report instrument used to identify people with alcohol and/or drug problems. A project funded by National Institute on Disability and Rehabilitation Research (NIDRR) has been working on the development of a new substance abuse screener, 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. The researchers recognized the need to develop a version for use with Deaf individuals and it is called the Substance Abuse in Vocational Rehabilitation-Screener in American Sign Language (SAVR-S-ASL). To date there is no formal substance abuse assessment/screening instrument specifically designed with carefully selected sign language to use with the Deaf population.

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.

There were challenges in transcribing the SAVR-S to American Sign Language. The original Substance Abuse Screening Instrument (SAVR-S) is administered in a written format and 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 of the interpretation (Guthmann, Sandberg ,1998). 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 may be the unfamiliarity of chemical dependency language to the individual (Guthmann, Sandberg 1998).

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 study's preliminary investigation (Steinberg, Lipton, Eckhardt, Goldstein, & Sullivan, 1998) showed that a computerized version of a signed mental health diagnostic inventory could be used accurately and effectively with Deaf clients.

Our study utilized the back translation procedure to evaluate equivalents between the original SAVR-S instrument and the translated ASL version. As indicated above, 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).

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(V.R.). The process included the validation of the instrument with approximately 1,000 V.R. 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 who was 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 first inpatient programs providing specialized treatment services for chemically dependent Deaf and Hard of Hearing Individuals. With funding from the RRTC, Dr. Guthmann arranged contracts with four Deaf professionals who were native ASL users. They formed a Linguistics Committee and assisted 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 of 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 Linguistics Committee met multiple times over a period of one year to review the SAVR-S questions item by item and come to agreement about how to interpret each equivalent into ASL. The proposal to revise the SAVR-S included doing a

translation into American Sign Language which followed a yes/no format (instead of True/False) and reducing the number of items.

The Linguistics Committee then met in a television studio for two sessions to create a CD-Rom ASL version of the SAVR-S modeled by a native Deaf 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-Rom and created an interactive version to be used for the back translation process. Research reports success in the process of back translation in cross-cultural translations of assessment tools (Brislin, 1970). Individuals were recruited nationally for participation in the process to ensure that sign selections were not regional. Participants were all Deaf or CODA's (Children of Deaf Adults). They were given a copy of the CD-Rom with directions to review and write down each question in English (conceptually).

The most rigorous method for creating a semantically accurate document is to include several translation steps, including "back translation". This entails re-interpreting the ASL into English by persons who communicate with ASL. Extensive back translations were created and analyzed by the development team. A total of 37 persons completed back translations, and they represented 19 states and multiple regions. Ages ranged from 24-62 (mean=43 yrs). All participants were Deaf with sign language as the preferred mode of communication. A total of 22 were female. Educational level consisted of five individuals with high school degrees, six with baccalaureate college degrees, and 21 with master's degrees. Racial composition was 84% Caucasian, 9% Hispanic, and 6% Asian. The sample size is small due to Deaf as a small percentage of the majority population. This sample also 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.

Subjects participated in the study without access to the original text version of the SAVR-S. Some participants received a $25.00 stipend for their participation. Translations were collected and analyzed. In the end of this phase, 32 completed translations were received. The length of the instrument, (75 Questions), required some people several hours to complete. Results were analyzed by three raters. Equivalency between the original and translated version was evaluated. The author of the instrument at the SASSI Institute, and the Project Director from the RRTC at Wright State were also involved in this process comparing the data to their own studies used with Vocational Rehabilitation participants.

Sampling Strategy

A purposive sampling was used to recruit Deaf staff at the California Schools for the Deaf in Riverside and Fremont via email 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-ROM version of the ASL version was distributed to each department and rotated by staff to be self-administered. The process of watching the questions and writing the translations took some people several hours to complete and there was no time limit. Participants were requested to return their responses within three weeks. Unreturned

responses were followed up with email remainders. Results were analyzed by three raters. The equivalency between the original and translated version was evaluated and the SASSI Institute staff were also involved in the process of comparing the data to their own studies with Vocational Rehabilitation populations. 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 questions, 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" vs. "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 focus group met to review the results from the back translation, view the original CD-Rom and made recommendations for revisions. The focus group received feedback about the first CD-Rom and based on that made the decision to sign all 42 questions again. Some feedback suggested that the facial expressions used on the CD-Rom should be more neutral; some of the signs being made included the hand covering the mouth, and upon review, the focus group had suggestions for using different ASL signs for some of the questions. The focus group met in the television studio with the Producer to make the new CD-Rom with each of the 42 questions being signed in ASL again. A second CD-Rom with the revisions was made and that version was sent to 18 sites targeting a total of 100 completed instruments.

Next Steps

In order for the ASL version of the SAVR-S-ASL to be utilized as a psychometrically sound instrument, it must be validated. Sensitivity and specificity of this instrument must be

established if it is be utilized in a manner similar to the non-ASL SAVR (e.g., wide-spread screening of applicants to VR). In addition, the field trial of the initial ASL instrument indicated that it was too long to be effective in the field as a screening tool. The current instrument is 42 items, and field sites indicate that an ideal length would be no larger 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 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 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 and conduct a clinical interview to assign a DSM

diagnosis with a 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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