Adult Substance Use and Driving Survey-Revised (ASUDS-R): Psychometric Properties and Construct Validity

Kenneth Wanberg¹ and David Timken*²
¹Center for Addictions Research (CARE), Arvada, CO, USA
²Center for Impaired Driving Research and Evaluation (CIDRE), Boulder, CO, USA

A brief description of the Adult Substance Use and Driving Survey-Revised (ASUDS-R) is provided including the various scales and a number of items. History and development are discussed. Construct validity is set forth and psychometric properties are reviewed including content validity, scale independence, perspective, criterion and predictive validity. The use of the instrument solely or in combination with placement criteria in providing DWI education and treatment services is discussed.

The procedures involved the description of samples, determining means, standard deviations (SD) and internal consistency reliabilities (ICR) (Cronbachs Alpha). Intercorrelations of the scales were performed along with ICR, squared multiple correlations (SMR) and percent unique variance (PUV). Correlations with age, gender, ethnicity and marital status among others demonstrate how a scale measures what it measures. Correlates between ASUDS-R scales and independent criterion measures were also reviewed in order to provide evidence of criterion (construct) validity of the scales. Included, but not limited to, were level of supervision of DWI offenders, women offenders, general drug involvement, degree of drug disruption and symptoms. Also included were levels of supervision of DWI offenders. Several other scale correlations were used including prior diagnosis of substance abuse/dependence and driving related measures. Finally, regression analysis was performed to help determine whether the ASUDS-R is useful for placing DWI offenders in education and/or treatment.

The analytical results were largely favorable. Internal consistency reliabilities were within optimal range. Each scale was found to render a unique dimension, intercorrelations among scales showed a consistent positive manifold, consistency of measurement among different samples was strongly supported and robust correlations were found with external criterion tests and scales. Evidence was found to support the use of the ASUDS-R scales independently and in combination with collateral variables to provide service guidelines for DWI offenders.

The ASUDS-R is a valid self-report differential screening instrument that provides sound guidelines for decision making, particularly when integrating findings from other report data, e.g., BAC, prior offenses, and when used in combination with placement criteria such as those developed by the American Society of Addiction Medicine (ASAM)

Keywords: Screening, Psychometrics, Validity