Use of the SCL-90-R With Northern Plains Indians

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Background:

   Mood disorders including depression and anxiety are among the major health problems of American Indians. Depression is estimated to be a leading cause of disability worldwide (Murray and Lopez, 1996). American Indians (AI), among the most heterogeneous and impoverished minority groups in the U.S., suffer disproportionately from depression, with a per capita suicide rate 247% the national average and, among 15-24 year olds, 429% the national average (IHS, 2010). Unfortunately there are few available data addressing the co-morbidity of depression and other mental and physical health problems in AI (Daniels et al, 2001; Daniels et al, 2000). The Symptom Checklist-90-Revised summarizes symptoms into several clinical scales and a general stress index that determines an individual's degree of distress (Derogatis, 1994). Scores of Northern Plains Indians on the SCL-90-R are compared with other measures and the general population for groups diagnosed as anxious, depressed, and with no mental health diagnosis. Psychometrics are reported and correlations between depression, anxiety, and rumination measures.

   Many psychological assessments are used with AI behavioral health clients, however; very few have been examined to see if they are valid, reliable, and culturally appropriate for AI populations. Some of the mediating factors that could contribute to inaccuracy or inappropriate use of these assessments with AI are: historical trauma, culture identification issues, quality of life, socioeconomic status, and health status. This study examines the psychometrics of the SCL-90-R with common measures of depression, anxiety and substance use with Northern Plains Indians (NPI). The measures included the Beck Depression Inventory-II (BDI-II), Center for Epidemiology Studies-Depression Scale (CES-D), Tri-Ethnic Depression Scale (TEDS), Beck Hopelessness Scale (BHS), Beck Anxiety Inventory (BAI), Symptom Checklist-90-Revised (SCL-90-R), Quality of Life Inventory (QOLI), and Rumination Scale (RS) and Substance Abuse Subtle Screening Inventory-III (SASSI-III).

Methods:

   Six hundred male and female adult, Northern Plains Indians were recruited from IHS and tribal behavioral health clinics on seven North and South Dakota Reservations to complete a series of mood disorder assessments. The participants were recruited from three groups: 1) diagnosed depressed (by clinician), 2) diagnosed anxious (by clinician), and 3) no mental health diagnosis (control). Assessments were completed by paper and pencil, placed in an envelope and returned to the site coordinator. Participants received $10 in gift/gas cards in compensation for their time and the tribe received $5/participant for compensation. Site coordinators added the clinical diagnoses to the envelopes and returned them in separate envelopes from the consent forms to the researchers. Data was then entered using SPSS for all returned measures. Assessments included depression, anxiety, hopelessness, rumination, culture, quality of life, substance abuse, substance use, demographics, and the clinician's diagnosis code.

Results:

   A total of 600 participants from eight approved sites have completed the assessments. Data from 233 male and 360 female participants between the ages of 18 and 80 years have participated. The mean age was 36.2 years with a standard deviation of 12.7 years. Seventy-

nine percent of participants had at least a high school education and 54% had household incomes below $8,000/year. Diagnoses based upon clinician reports included: depressed 25.1%; anxious 22.6%; co-morbidity with depression and anxiety 13.7%; substance abuse 24.3%; and no diagnosis 54.5%. SCL-90-R non-patient scores are as follows: Global Severity Index mean of 0.50 ± 0.54; Somatization mean of 0.57±0.59; Obsessive-Compulsive mean of 0.60±0.66; Interpersonal Sensitivity mean of 0.49±0.64; Anxiety mean of 0.21± 0.39; Depression mean of 0.55 ±0.62; Hostility mean of 0.49±0.62; Phobic Anxiety mean of 0.44±0.70; Paranoid Ideation mean of 0.52±0.66; Psychoticism mean of 0.31±0.03. SCL-90-R outpatient scores are as follows: Global Severity Index mean of 1.13 ± 0.76; Somatization mean of 1.14±0.84; Obsessive-Compulsive mean of 1.32±0.90; Interpersonal Sensitivity mean of 1.11±0.83; Anxiety mean of 0.54± 0.64; Depression mean of 1.32 ±0.902; Hostility mean of 1.13±0.932; Phobic Anxiety mean of 1.16±1.11; Paranoid Ideation mean of 1.11±0.84; Psychoticism mean of 0.80±0..77. Chronbach alpha and split half reliability were calculated for each scale. Chronbach alphas range from 0.826-0.984 on the various scales, while Spearman-Brown Split Half reliability scores ranged from 0.812-0.917.

Conclusions:
1) Reliability scores for the SCL-90-R scales were moderate to high for American Indians.
2) Reliability and validity of the measures are reported.

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