
Principal Components and Psychometric Properties of the Children's Depression Rating Scale-Revised among Latino Adolescents with Type 1 Diabetes: Initial Examination

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Abstract

Depression assessments among adolescents with Type 1 Diabetes (T1D) are mostly patient-reported. Given its similarity with diabetes features, accurate assessment of some depressive symptoms may be compromised if relying exclusively on self-reports. No study has examined the structure and/or psychometrics of a non-self-reported depression scale among T1D Latino adolescents. We assessed the structure and psychometrics of the Children's Depression Rating Scale-Revised (CDRS-R) among 65 T1D youth (aged 12-17), screened during a depression-treatment study (IRB#1112-005). Adolescents and caregivers completed several measures. Clinical evaluators rated the CDRS-R during the screening interview. We used Principal Component Analysis (Promax rotation) to explore CDRS-R's internal structure, Cronbach's alpha to assess its internal consistency, Pearson correlation to examine its concurrent/construct validity, and MANOVA/ANOVA analyses to explore its discriminate validity. Three components with eigenvalues >1.5 explained 48.93% of variance: Negative Mood/Functionality (9-item; $\alpha = .74$), Self-Deprecation/Sleep Problems (5-item; $\alpha = .74$), and Depressed Affect/Retardation (3-item; $\alpha = .81$). Corrected item-total correlations ranged from .17 to .57 (Total Scale $\alpha = .80$). Supporting its concurrent validity, CDRS-R scores significantly correlated with other depression scales/current depressive disorder diagnosis. These scores converged with death/suicidal thoughts, hopelessness/helplessness, self-esteem/guilt, and cognitive alterations, and diverged from global functioning, self-efficacy for depression-related functionality, glucose testing, and perceived cohesion during group treatment. CDRS-R scores significantly discriminated depressed adolescents with and without a history of substance use. The CDRS-R is a reliable and conceptually valid measure that could enhance depression assessments for T1D Latino youth in research- and mental-health settings.

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