

## Comparing Balance Capacity of Sex and Age Matched Brazilian and North American Youth with Intellectual Disabilities

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**INTRODUCTION:** For children and adolescents, adequate skill levels for balance (BAL) affects activities of daily living, participation in recreational activities and general physical activity levels. Youth (6-21 years) with intellectual disabilities (ID) demonstrate below-criteria motor competence (MC) for BAL when compared to typically developing (TD) youth. However, the degree to which youth with ID demonstrate substandard MC when compared to TD children is difficult to determine due to methodological (i.e., motor test used and testing procedures), level of ID (mild vs moderate vs severe), demographic (ages, combined and separate sex data), and cultural (geographical location) differences.

**PURPOSE:** To compare the balance capacity of youth with ID from the United States (US) and Brazil (BR) (1) matched in age, sex, and level of ID, (2) without Down syndrome, and (3) administered by similarly trained staff. Scores of US and BR youth with ID were also compared to norms established for TD youth.

**METHODS:** The sample consisted of 502 participants with ID but without Down syndrome aged 6-21 years from United States (U.S: 160 male and 90 female) and Brazil (BR: 159 male and 93 female). The Bruininks-Oseretsky Test of Motor Proficiency (BOT-2) was used to measure 7 items for balance. Differences among test items were determined by nonparametric confidence intervals using the bootstrap method. Level of significance was set at  $p < 0.05$

**RESULTS:** No significant difference existed among groups (BR males vs BR females vs US males vs US females) for all 7 balance test items. Below TD standard scores were seen in three of the seven test items.

**CONCLUSION:** This study demonstrated similar balance scores for both sex and country for all BOT-2 balance items. These findings also suggest that BOT-2 balance norms specific to youth with ID but without Down syndrome could be established for clinical application.