

# Concentration Endurance Test (d2): Normative data for Spanish-speaking pediatric population

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**OBJECTIVE:** To generate normative data for the Concentration Endurance Test (d2) in Spanish-speaking pediatric populations. **METHOD:** The sample consisted of 4,373 healthy children from nine countries in Latin America (Chile, Cuba, Ecuador, Guatemala, Honduras, Mexico, Paraguay, Peru, and Puerto Rico) and Spain. Each participant was administered the d2 test as part

of a larger neuropsychological battery. The Total number of items processed (TN), Total number of correct responses (CR), Total performance (TP), and Concentration performance (CP) scores were normed using multiple linear regressions and standard deviations of residual values. Age, age 2, sex, and mean level of parental education (MLPE) were included as predictors in the analyses. RESULTS: The final multiple linear regression models showed main effects for age on all scores, such that scores increased linearly as a function of age. TN scores were affected by age 2 for Guatemala and Puerto Rico; CR scores were affected by age 2 for Mexico; TP scores were affected by age 2 for Chile, Mexico, Puerto Rico, and Spain; and CP scores for Mexico and Spain. Models indicated that children whose parents had a MLPE >12 years obtained higher scores compared to children whose parents had a MLPE ≤12 years for Mexico and Spain in all scores, and Puerto Rico for TN, CR, and TP, and Guatemala and Paraguay for CP scores. Sex affect the scores for Ecuador and Honduras (CP scores). CONCLUSIONS: This is the largest Spanish-speaking pediatric normative study in the world, and it will allow neuropsychologists from these countries to have a more accurate approach to interpret the d2 test in pediatric populations. © 2017 - IOS Press and the authors. All rights reserved.

Attention

Concentration Endurance Test (d2)

neuropsychology

pediatric population

Spanish-speaking populations

attention

child

Chile

Ecuador

education

endurance

female

Guatemala

Honduras

human

major clinical study

male

Mexico

multiple linear regression analysis

neuropsychology

Paraguay

Puerto Rico

Spain

speech

attention

language

psychologic test

reference value

South and Central America

standards

statistical model

Attention

Child

Humans

Language

Latin America

Linear Models

Psychological Tests

Reference Values