

Phonological characteristics of the lexicon at 2;0 years predict language outcomes a 3;6 years

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Toddlers' first words are of higher mean phonological neighborhood density (ND) than words learned later. The words of children with delayed lexical development are of significantly higher mean ND than those of typically developing children. A relationship between a higher mean ND value at 2;0 years and expressive language skills at 3;6 years may indicate that early word processing difficulties inhibit ongoing development.

Parents of 143 children completed MCDI forms when the children were 2;0. PLS-4 tests were administered at 2;0 and 3;6 years. Child individual mean ND scores were generated from CDI monosyllabic nouns, verbs, adjectives and adverbs. Standard scores were generated for the PLS-Expressive (PLS-E)..

Regression 1: ND-Time 1 accounted for 35% of the variance in PLS-E Time 1 ($\beta = -4.19$, $t = -8.61$, $p < .001$), and Age was not a significant predictor ($\beta = -.07$, $t = -1.05$, $p = .30$).

Regression 2: MCDI-T1 scores accounted for 27.4% of unique variance ($\beta = .03$, $t = 4.50$, $p < .001$) in PLS-E Time 3, with Age-T3 and ND-T1 contributing 6.1% ($\beta = -.201$, $t = -3.93$, $p < .001$) and 4.6% ($\beta = -1.38$, $t = -3.22$, $p = .002$) of unique variance respectively.

ND at 2;0 was a significant predictor of PLS-4 scores at both 2;0 and 3;6 years, once Age and early MCDI scores had been accounted for, indicating some continuing effects of early lexical processing difficulties on continuing language development. Manipulating ND as an intervention variable may result in better outcomes for children at the low end of performance.