Risk factors for early language delay in a minority ethnic, bilingual, socioeconomically deprived population

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Abstract

Children learn language before school-entry, and low early language skills are a risk factor for poorer outcomes. Within mid-socioeconomic status, predominantly white, monolingual families, approximately 1 in 10 2-year-olds are late talkers (1). Although socioeconomically deprived children have lower language skills, and minority ethnic and bilingual children can experience a gap in school-entry language skills (2), UK research that examines late talking in socioeconomically deprived, minority ethnic, bilingual environments is scarce.

We identified late talking prevalence in 2-year-olds (M_{age} = 25.21 months, SD = 1.30 months) within Born in Bradford's Better Start birth cohort, comprising predominantly bilingual and minority ethnic, socioeconomically deprived children (N = 712; pre-COVID19 cut). We used hierarchical regression to test *a priori* risk factors (3–8) on children's Oxford-CDI: Short expressive vocabulary scores (linear) and late talker status (logistic), calculating R^2, F-tests, and odds ratios.

Prevalence of late talking was 24.86% (≤10th percentile, Oxford-CDI: Short; bilingual norms; (9)). Model 1 contained demographic factors (ethnicity, UK-born, education, maternal age, parental employment, financial security, household size), and predicted 3.12% of expressive vocabulary variance. Model 2 added maternal language factors (native language, home languages; $F(4, 567)$ = 0.52, p = .722) and Model 3 added perinatal factors (birthweight, gestation; $F(2, 565)$ = 1.14, p = .321); together, these predicted 3.76%. Model 4 added distal child factors (male or female, age), predicting 11.06% ($F(2, 563)$ = 28.36, $p <$ .001), and Model 5 added proximal child factors (receptive vocabulary, hearing concerns), predicting 49.51% ($F(4, 559)$ = 197.70, $p <$ .001).

Significant risk factors for late talking were being male (OR: 2.07, 95%CI[1.38, 3.09]), receptive vocabulary delay (OR: 8.40, 95%CI[4.99, 14.11]), and parent-reported hearing concerns (OR: 7.85, 95%CI[1.90,32.47]). Significant protective factors were increased household size (OR: 0.85, 95%CI: 0.77, 0.95]) and age (OR: 0.82, 95%CI[0.70,0.96]).

We found 1 in 4 children in Born in Bradford's Better Start cohort are late talkers. Population factors predicted little variance, whereas proximal child factors had more predictive value. However, as much of the variance was left unexplained, further research on early language learning proximal environments is needed in socioeconomically deprived, minority ethnic UK populations.

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