

Speech disorders in children with Fetal Alcohol Syndrome:
Commonalities and individual differences
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Fetal alcohol syndrome (FAS; Jones et al., 1973) refers to a pattern of congenital defects that can result from prenatal exposure to alcohol including growth deficiencies, physical malformations, and central nervous system anomalies. In terms of cognitive functioning, FAS has been associated with deficits in attention, learning, and executive functions, mental retardation, fine and gross motor difficulties, hearing disorders, and language and speech impairments. However, the speech production problems in children with FAS have not yet been described in detail.

The present study comprised a detailed investigation of phonological and speech-motor characteristics of the speech of children with FAS. By investigating commonalities and individual differences in phonological and speech motor development in children with FAS as compared to typically developing children, we aimed to identify the mechanisms underlying concomitant speech impairment in FAS.

Ten children aged 5.5–10.3 years (mean=7.2, SD=1.9) that were diagnosed with FAS by a specialized pediatrician and 25 typically developing children aged 4.1–8.7 years (mean=5.6, SD=1.4) participated in the study. Half of the children with FAS had a history of or still received speech therapy. Speech production, -perception, and oral-motor data was collected using standardized tests.

Results showed that the children with FAS were less intelligible and made more and more varied consonantal errors compared to typically developing children. Although the pattern of errors showed strong similarities with pattern that occurs during normal development, the pattern of correlations with oral motor and auditory discrimination skills was very different in the group of children with FAS as compared to the typically developing children. Implications for diagnosis and treatment of speech production problems in children with FAS will be discussed.