

Critical Review:
Associations Between Child Temperament and Expressive Language

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were involved in the Early Language in Victoria Study (ELVS), a longitudinal study investigating language development. Expressive and receptive language were assessed by either speech pathologists or trained graduate students with the Australian version of a gold-standard American language assessment tool. A gold-standard Australian temperament scale was completed by parents to assess temperament. Language scores were used to indicate the presence of impairment, and a total of 310 participants were identified as having LI. Appropriate statistical analyses indicated group differences on attention/persistence and difficultness, but not on approach/sociability.

related to fussiness/difficultness. Children were accordingly identified as either "difficult" or "normal". Correlational analyses revealed that fussy temperament

A strength of this study is its large sample size. As this study was part of the broader ELVS study, its results are also able to be compared to earlier findings that have been established on the same sample (i.e. Prior et al., 2008). Their use of the language assessment tool was also appropriate, as this is a widely used, gold-standard test. These results are limited in their clinical applicability as the methods failed to distinguish between expressive and receptive language impairments. Furthermore, the labels of "language impairment" and "typically developing" categorize language skills into binary groups. These labels do not acknowledge the range of language skills that children may have (e.g. impairment ranges from mild to severe, and children with typically developing skills may still fall above or below the average range of scores).

These findings provide suggestive evidence that persistence and difficultness are associated with language ability at four years of age. However, failure to distinguish between expressive and receptive language skills make this evidence equivocal in addressing the clinical question of interest in this critical review.

Schjølberg, Eadie, Zachrisson, Øyen, and Prior (2011) investigated potential child, family, and environmental factors that may have a role in predicting delayed language development. Correlational analysis was used to identify associations between language development and child fussiness. Participants consisted of 42107 toddlers involved in the Norwegian Mother and Child Cohort Study (MoBa), an ongoing prospective study in Norway. Data was obtained during pregnancy, as well as throughout the children's development up to 18 months of age. A four-item Norwegian screening questionnaire (based on an American test) was used to assess language at 18 months of age. Participants were then identified as having either normal or slow language development. Temperament was assessed at six months of age using seven items of a gold-standard parent questionnaire

persistence, activity level, high intensity pleasure, and approach are more often positively correlated with expressive language. A considerable portion of the evidence yielded mixed results related to the associations between temperament and expressive language. Future research is recommended to provide stronger evidence related to this association.

Clinical Implications

Given that review of the available research yielded mixed findings, parents and speech-language pathologists should be cautious in assuming that specific temperamental features are absolute indicators of impairment. However, these factors may be used to identify children who are potentially at risk, so that they can be provided with additional language stimulation. This support may pre-emptively improve their language skills to facilitate more positive academic and social outcomes. In cases of children who possess temperamental features that are characteristic of language delays, but who nevertheless develop language age-appropriately, additional language exposure is not likely to be detrimental. Therefore, providing

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