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An instrument for a universal screening for stuttering in preschoolers

K. Neumann^a, H.A. Euler^a, P. Schneider^b & M. Sommer^c

^aUniversity of Bochum, Germany

^bUniversity of Aachen, Germany

^cBundesvereinigung Stottern & Selbsthilfe, Germany
University of Goettingen, Germany

Abstract

Screenings for preschool stuttering exist only for children with a suspicion of stuttering or with risk factors. A universal screening, however, might be advisable within regular medical checkups or screenings for developmental language abnormalities as performed routinely by local pediatricians or in kindergartens. The benefit criteria for such a screening are fulfilled for childhood stuttering (high prevalence, treatment availability, diminishing treatment effects with age, emotional burden of stuttering after school entrance).

Participants were (a) 806 unselected children between 4.0 and 4.5 years, the age at which language screenings are performed in German kindergartens, and (b) 776 unselected children aged 5 to 7 years, during the school entrance medical examinations. Reference tests were for (a) the Test of Childhood Stuttering (TOCS), for (b) the Stuttering Severity Instrument (SSI-4). Sessions were audio recorded, and the recordings of children with any disfluencies additionally judged by 3 experienced stuttering specialists. Evaluated by classical test theory for the 4-year-olds were 20 items for a potential child questionnaire and 13 items for both a potential kindergarten teacher and parent questionnaire. For the older children, the same child and parent questionnaire items were administered, and additionally 7 items for physicians, 3 of which to be answered on the basis of the child's speech during the medical examination, and to be posed to the parent.

Only the test for the pediatrician showed sufficient quality criteria (specificity 96%, sensitivity 58% for children requiring further examination; sensitivity 100% for children requiring treatment). Remarkably, 4 questions which occurred both in the parent and the paediatrician questionnaire had better external validities if posed verbally by the pediatrician to the parent than if answered on paper by the parent.

Discussion: With the pediatrician instrument a useful and feasible screening is available, provided the performing doctors are sufficiently trained and sensitized.

Keywords: Stuttering in childhood; Universal screening; Item analysis; Classificatory test criteria

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