Screening for Developmental Disabilities and Autism Using the Rourke and NDDS in Primary Care

ABSTRACT

Purpose: Recent guidelines recommend developmental screening of preschool children at regular intervals. In Canada, little is known about screening practices, but data suggests few physicians make use of recommended tools. The majority of family physicians, however, administer the Rourke Baby Record (Rourke), a health monitoring tool which includes a section on development. Furthermore, the Nippissing District Developmental Screen (NDDS) is increasingly being promoted as a screening tool for use at well child visits. However, these tests are being used despite the lack of data on their validity. The current study sought to examine the sensitivity and specificity of the Rourke and NDDS in identifying children with developmental delay and autism.

Methods: A sample of 334 children, aged 12-60 months, who presented to their primary care provider for routine care was recruited. Parents completed the NDDS and the developmental portion of the Rourke. The presence of one or more abnormal result was considered as a positive screen. All children underwent an evaluation by a psychologist, using tests of cognitive function, motor, speech/language, and adaptive functioning. The criterion for identifying developmental delay was a score below the 10^{th} percentile on any of the measures.

Results: The NDDS had moderate sensitivity (82%) and specificity (73%) for classifying children with developmental delay. Likewise, the sensitivity and specificity of the Rourke fell into the moderate range (71% and 81%, respectively). The differences in sensitivity did not reach

statistical significance, but the Rourke had higher specificity. Both tests were 100% sensitive for identifying autism, but lacked specificity.

Conclusions: The NDDS has moderate sensitivity and specificity for developmental screening and shows promise for use in primary care settings. Despite having a slightly lower sensitivity, the Rourke also showed promise for use as a developmental screening tool. A major advantage of the Rourke is that it is already in common use by physicians in Canada for monitoring other aspects of the well-child visit. Future research should examine the use of the Rourke in clinical practice, to ensure that the developmental portion is being properly administered, and that children with abnormal results are properly identified and referred for further assessment.