

Age-related issues of instruments screening for autism in young children

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Dear editor

A recent publication in your journal titled “ESSENCE-Q – a first clinical validation study of a new screening questionnaire for young children with suspected neurodevelopmental problems in south Japan” by Hatakenaka et al¹ has caught our attention. The proposed instrument has produced promising results in the specific sample. Coupled with its simplicity, the screening instrument is indeed worthy of merit.

Our team is also developing a screening instrument for autism in toddlers. Identification of communication disorders in toddlers as early as possible warrants an earlier intervention with more promising results.²⁻⁴ However, during our assessment, we found that age has a verifiable confounding effect on the screening process that can be summed up as follows: younger children with speech and language delay may be miscategorized as children with speech and language disorder from the autism spectrum disorder. This misclassification evidently increases the frequency of false-positive identifications and, as a consequence, degrades the specificity of the prediction model.

Low specificity is the odd one out of the otherwise good psychometric properties of the ESSENCE-Q, especially at the cutoff values proposed by the authors. We find ourselves in agreement with the authors that a screening tool primarily has to possess high sensitivity, and therefore the cutoff values should be kept as low as possible. Our question is whether the increased false-positive rate and thus the decreased specificity reported by the authors may also be age related, as in our sample. From this point of view, we would be grateful if the authors provided us with the data regarding comparisons of the age at the time of assessment of the four groups, ie, true positives, true negatives, false positives and false negatives.

If the hypothesis of the particular confounding effect of age is verified in the findings of the authors, then this will strengthen our conviction that age has to be included in the prediction equation of the screening model.

Disclosure

The authors report no conflicts of interest in this communication.

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Authors' reply

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Dear editor

We have read with interest and appreciate the comments made by Loretta Thomaidis, Antigoni Choleva and Miltiades Kyprianou.

In our study group, the false-positive indices (1-specificity) were 0.50 in the subgroup younger than 36 months and 0.44 in the subgroup 36 months and older.

Given the limitations of our study (all subjects were clinical cases and numbers were relatively small), we cannot speculate whether or not this possible “tendency” is “real”. In our ongoing studies of a general population sample, we will definitely take into account the suggestion proposed by the commentators and perform relevant analyses regarding age-related effects.

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The authors report no conflicts of interest in this communication.

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