A Family Psychosocial Risk Questionnaire for Use in Pediatric Practice

Date:

Dec 2012
Visit Article

The objective of this study is to develop new methods to better identify psychosocial risk such that children with the greatest risk of poor future outcomes receive more intensive preventive health services. Based on structured literature review and secondary data analysis, a 52-item psychosocial risk questionnaire was administered to 2,083 families of children (<36 months). To quantify the questionnaire's construct validity, developmental concern was assessed with the Ages and Stages Questionnaire version II (ASQ) [n = 1,163]. An iterative model selection process was used to produce the most parsimonious predictive model. Model fit was examined using c-statistics, the Hosmer–Lemeshow test, and a heuristic measure of model overfit based on the fitted log-likelihood values and associated number of degrees of freedom. We found 13 items easily obtained from parental report produced a regression model with a c-statistic of 0.70. Using an integer scoring system derived from the regression model, we calculated stratum specific likelihood ratios to revise a given prior probability of ASQ failure. The posterior probability of ASQ failure was 44.9 % for a child in the highest risk group (score >25) on the questionnaire, more than double our observed average failure rate of 19.5 %, while it was less than 7 % for a child with the lowest possible score on the questionnaire. Thirteen parent-reported items can be compiled into a summary psychosocial risk questionnaire that predicts failure on developmental screening among preschool children. With further validation, this questionnaire could conceivably be used by clinicians to tailor pediatric preventive care to children at varying levels of risk.

Journal:

Authors:

Pati S, Guevara JP, Zhang G, Bhatt SJ, Kavanagh J, Gerdes M, Localio R, Forrest CB