Involvement of family environmental, behavioral, and social functional factors in children with attention-deficit/hyperactivity disorder

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Abstract

BACKGROUND:
The objective of this study was to investigate relationships among family environmental characteristics, behavior problems, and social function impairments in children with ADHD.

METHODS:
Among children from four primary schools in Shantou city of China, 132 who were diagnosed with ADHD were selected and 138 typically developing children were recruited from the same schools. These children were evaluated using the self-designed questionnaire, FES-CV, CPRS, CTRS, and WFIRS-P for familial environment, behavioral problems, and social function impairment measures. In addition, children's behavioral problems and functional impairments were evaluated using self-established field behavior observation method. Logistic regression model was used to estimate ORs and 95% CIs for ADHD risk with family environmental factors.

RESULTS:
In the unconditional logistic model, ADHD risk in children was increased with parents' worse educational level, occupational status, and emotional stability with trend. Children with ADHD had lower scores on most subscales of FES-CV (P<0.01) but higher scores on Conflict subscale (P<0.001). Children with ADHD showed impairments on all the six WFIRS-P subscales tests (all P<0.001), and higher scores on the CPRS and CTRS scale subscales representing behavioral symptoms (all P<0.001 except Somatic Complaints), and more behavioral problems and functional impairments.

CONCLUSION:
Compared with typically developing children, children with ADHD had worse family environment. Family characteristics especially parents' emotional unstability, lower education levels, and worse occupation status may increase ADHD risk in children. In addition, the behavioral problems and social functional impairments may interact