Healthcare use and costs associated with children's behavior problems.

The objective of the study was to investigate associations between severity of behavior problems, specific symptom domains with healthcare use and costs in school-aged children. A cross-sectional study using data from the 10-year follow-up of two population-based birth cohorts was conducted on four rural and urban communities in Germany. There were 3,579 participants [1,834 boys (51%), 1,745 girls (49%)] on average aged 10.4 years. The severity levels (normal, at risk, abnormal) and symptom domains of behavioral problems were assessed by parent-reported strengths and difficulties questionnaire (SDQ). The outcomes were medical use categories (physicians, therapists, hospital, and rehabilitation), medical costs categories and total direct medical use and costs (calculated from parent-reported utilization of healthcare services during the last 12 months). Total direct medical costs showed a graded relationship with severity level (adjusted p) 271 (SD 858), and 1,237 (SD 2,528) between abnormal and normal total difficulties. A significant increase in physician costs showed between children with normal and at risk total difficulties (1.30), and between normal and abnormal total difficulties (1.29; p< 0.0001). Between specific symptom domains, children with emotional
symptoms showed highest costs for physicians, psychotherapist, and hospitalization as well as total
direct medical costs. Children with hyperactivity/inattention showed highest costs for therapists and
emergency room costs. Healthcare use and costs are related to the severity of child behavior
problems. In general, children's costs for psychotherapy treatments have been low relative to general
medical treatments which may indicate that some children with behavioral problems did not get
appropriate care. To some degree, medical conditions may be attributable to some of the high
hospitalization costs found in children with emotional symptom.