

Outpatient rehabilitation resources and medical expenditure in children with attention-deficit hyperactivity disorder in Taiwan

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Abstract

Attention-deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder in children. This study investigated the use of rehabilitation treatment in Taiwan. We selected children aged 3-12 years from the National Health Insurance Research Database from 2008 to 2012 and included them in the analysis. The children who received a diagnosis according to the International Classification of Diseases, Ninth Revision, Clinical Modification were divided into two groups: ADHD and non-ADHD. We used the chi-squared test, independent sample t test, and multiple regression analysis to conduct the analysis. The utilisation of rehabilitation resources was higher in the ADHD group than in the non-ADHD group. The number of school-aged children with ADHD was higher than the number of preschool-aged children ($p < 0.001$). The highest utilisation of rehabilitation resources was observed in clinics ($p < 0.001$). In terms of region, Taipei exhibited the highest utilisation of rehabilitation resources, and the East exhibited the lowest resource utilisation ($p < 0.001$). Prediction of the use of rehabilitation resources, average cost, average frequency of visits, and total annual cost was affected by factors such as the average frequency of rehabilitation use, demographic characteristics, and the hospital characteristics and location ($p < 0.001$). The number of children with ADHD and rehabilitation use are increasing yearly; however, limitations in payment restrict the growth of rehabilitation resource use in hospitals. Supplementation of rehabilitation resources at clinics accounts for more than 60%, however, the total annual cost is less than what is observed for hospitals ($p < 0.001$). Policies should be established to aid in the early detection and treatment of children with ADHD to improve treatment outcomes and reduce the family burden and treatment expenditure in the future.