

# Factors associated with behavioural problems among children receiving anti-epileptic drugs

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## Abstract

**Introduction:** Children on anti-epileptic drug (AED) therapy have many health problems. Children with epilepsy are at a high risk for poor psychosocial outcomes, even without evident co-morbidities. Apart from the episodic seizures, multiple socio-cultural factors affect their behaviour and health. **Objective:** Objective of the present study is to find out factors associated with behavioural problems among children receiving anti-epileptic drugs. **Methodology:** A cross-sectional design was used in the present study. Data were collected from 275 children between 6 to 12 years, who were diagnosed with seizure disorder and on AED for a minimum of six months. Children along with their mothers were consecutively selected from paediatric neurology outpatient department of a tertiary care hospital. Personal interview was conducted with the mothers using Developmental Psychopathology Checklist (DPCL). Presence of specific psychopathology was identified based on the scores obtained for the sub domains of DPCL. Univariate analysis was done to find out cases and non-cases of each behavioural problem. Associated factors of behavioural problems were analyzed using bivariate logistic regression at 95% Confidence interval. **Results:** Age of onset of seizure disorder was a strong predictor variable of conduct disorders in children on AED therapy (*OR*: 4.059, 95% *CI*: 1.471-11.204, *p*=.007). Types of AED (*OR*: 1.860, 95% *CI*: 1.108 - 3.124, *p*= .019) had strong predictor association with learning problems among children. Good home care practice reduces learning problems in children receiving AED. (*OR*: 0.622, 95% *CI*: 1.471-11.204, *p*= .007). Similarly, duration of AED therapy (*OR*: 0.346, 95% *CI*: 0.127 -0.943, *p*: .038) has inverse effect on somatic complaints. No significant predictors were identified for ADHD or emotional problems. **Conclusion:** Behavioural problems among children receiving AED is associated with multiple factors. There is a complex interaction between all these factors. Identifying these pathologies and associated factors at the earliest along with effective treatment and control of seizures can significantly improve the quality of life of these children and their families.

**Key words:** Anti-epileptic drugs, behavioural problems, developmental psychopathology checklist, epilepsy, seizure disorder