



# Use of SSRIs Among Danish Children: *A Nationwide Study*

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## Conflict of interest

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## Background

The use of selective serotonin reuptake inhibitors (SSRIs) in children has been subject to debate and controversy. Issues on efficacy and adverse reactions, especially reported cases of suicide-related behavior, have in the past decade sparked warnings and guidelines from several regulatory authorities. However, the current knowledge on SSRI drug utilization in children is fragmentary.

## Objectives

We aimed at providing a detailed study of prescription patterns of SSRIs among the entire pediatric population in Denmark in 1995-2011.

## Methods

The study was conducted as a nationwide drug utilization study of SSRI use among all children aged 5-17 years living in Denmark between 1995 and 2011. Data on SSRIs (ATC, N06AB) were obtained from the Danish National Prescription Database. Descriptive statistics were used to estimate the incidence and prevalence of SSRI use by calendar year, children's age and gender, as well as treatment duration and concurrent use of other psychotropic drugs.

## Results

We identified 23,547 children aged 5-17 who used SSRIs during the study period. The most commonly used SSRI substance over the entire period was sertraline (64,595 fillings), followed by citalopram (63,892 fillings), with sertraline being the dominant SSRI by the end of the study period.

The overall incidence rate of SSRI use among children in Denmark increased from 0.57 (per 1,000 person-years) in 1997 to its highest value 3.30 in 2010 and then fell slightly to 2.55 in 2011. The prevalence proportion (5-17 years) rose from 0.1 (per 1,000 children) at the end of 1995 to 3.3 at the end of 2011, with the most pronounced increase occurring among adolescent girls (Figure 1). Until age 13, boys used SSRIs more commonly than girls, but thereafter the prevalence proportion ratio between genders was reversed.

Psychostimulants and antipsychotics were the psychotropic drugs most frequently used concurrently with SSRIs among children; 27-33% of young (5-11 years) SSRI users received psychostimulants and 16-23% of adolescent (12-17 years) SSRI users received antipsychotics. SSRI users were many-fold more likely to use psychotropic drugs as compared with children of the background population of the same age.

Our estimation of SSRI treatment duration showed that within 12 months of initiation, 35-40% of young children and almost 50% of adolescents discontinued treatment, while at 24 months 60-65% and 75% had discontinued treatment.

## Conclusions

We found a 4-fold increase in the incidence rate of SSRI drug use among children and adolescents in Denmark between 1995 and 2011. Whether this increase reflects a true increase in disease occurrence, an increase in diagnostic intensity or more aggressive treatment remains uncertain.

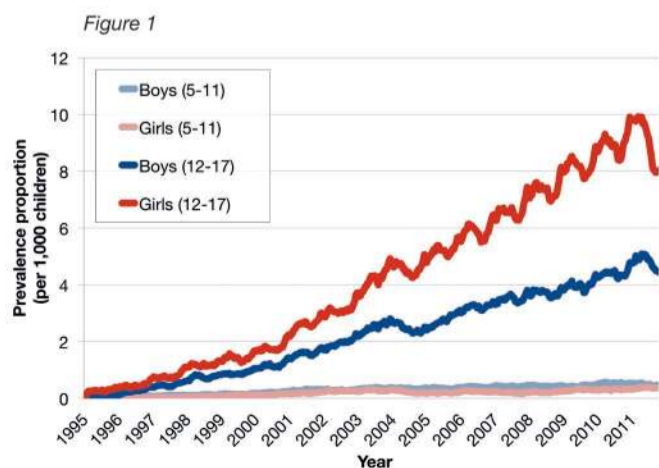


Figure 1: Prevalence proportions of SSRIs among children in Denmark 1995-2011, according to age and gender category