

Prescribing Psychotropic Medications to Preschoolers

Zito JM, Safer DJ, dosReis S, Gardner JF, Boles M, Lynch F. Trends in the prescribing of psychotropic medications to preschoolers. *JAMA* 2000;283:1025-30.

Study Overview

Objective. To determine the prevalence of psychotropic medication use in preschool-aged children and to show utilization trends across a 5-year span.

Design. Population-based analysis of cross-sectional data.

Setting and participants. Children aged 2 to 4 years enrolled in a midwestern state Medicaid (MWM) program ($n = 146,369$ to $158,060$), a mid-Atlantic state Medicaid (MAM) program ($n = 34,842$ to $54,237$), and a health maintenance organization (HMO) in the Northwest ($n = 19,107$ to $19,322$) from 1991 to 1995. Ambulatory care prescription records from the 2 Medicaid programs and the HMO were used to perform an analysis of 1-year cross-sectional data sets for the years 1991, 1993, and 1995.

Main outcome measures. Total, age-specific, and gender-specific utilization prevalences per 1000 enrollees for 3 major psychotropic drug classes (stimulants, antidepressants, and neuroleptics) and 2 psychotherapeutic medications (methylphenidate and clonidine); rates of increased use of these drugs from 1991 to 1995, compared across the 3 sites.

Main results. The 1995 rank order of total prevalence in preschoolers (per 1000) in the MWM program was stimulants (12.3) (90% of which represents methylphenidate [11.1]); antidepressants (3.2); clonidine (2.3); and neuroleptics (0.9). A similar rank order was observed for the MAM program, while the HMO demonstrated nearly 3 times more clonidine than antidepressant use (1.9 versus 0.7). Sizable increases in prevalence were noted between 1991 and 1995 across the 3 sites for clonidine, stimulants, and antidepressants; neuroleptic use increased slightly. Methylphenidate prevalence in 2- to 4-year-olds increased 3-fold, 1.7-fold, and 3.1-fold at the MWM, MAM, and HMO sites, respectively. Although decreases occurred in the relative proportions of previously dominant psychotherapeutic agents in the stimulant and

antidepressant classes, increases occurred for newer, less established agents.

Conclusion

Prescription of psychotropic medications for preschoolers increased dramatically between 1991 and 1995 in all 3 data sources.

Commentary

Zito et al report slight increases in the use of neuroleptics and substantial increases in the use of stimulants and antidepressants in preschool-aged children over a recent 5-year period. The majority of this psychotropic medication use is off-label. These changes in prescribing patterns may be the result of growing pressure from those funding mental health treatment to find the lowest-cost treatment approach. An informal survey of experts in pediatric psychopharmacology conducted by Coyle [1] suggests that psychotropic medications in the preschool age group are reserved for the most severe cases. The rising prevalence of psychotropic medication use in the samples studied is cause for great concern because there is no empirical evidence demonstrating the safety and efficacy of these drugs in preschoolers and because the drugs could potentially harm the developing brain.

Applications for Clinical Practice

Prospective, community-based studies are emphatically needed to explore the long-term effects of psychotropic drug therapy on multifaceted outcomes in preschool-aged children. Because the long-term effects of psychotropic use in children are currently unclear, physicians should thoroughly evaluate young children with behavioral disorders and proceed with caution when prescribing them psychotropics.

References

1. Coyle JT. Psychotropic drug use in very young children. *JAMA* 2000;283:1059-60.