Introduction

Stimulants are the first line pharmacotherapy for Attention Deficit Hyperactivity Disorder (ADHD). The number of prescription for stimulants dispensed by retail pharmacies has increased from 4 million in 1991 to 45 million in 2010 (1). Adolescents have a lifetime prevalence of nonmedical use of stimulants of 9.1% (2). Given the increased number and availability of stimulant pills and the potential for misuse and diversion, it is important for prescribers to carefully assess stimulant misuse in adolescents with ADHD.

One study of physician’s perceptions about stimulant misuse noted that many physicians were unaware of these issues (3). The aims of this survey were to assess pediatric psychiatry and pediatric primary care clinicians’ knowledge of and screening practices for stimulant misuse in adolescents with ADHD. We also assessed interest in a possible screening aid such as a best practice alert in the Electronic Medical Record (EMR).

Methods

A brief survey was developed to assess clinicians’ knowledge and clinical practice. Three questions gathered demographics information such as clinic location and size of caseload. Four multiple-choice questions were used to assess providers’ knowledge about stimulant misuse in the United States. Ten questions assessed clinicians’ current practices with adolescent patients with ADHD. Two questions pertained to interest in a best practice alert in the EMR. The survey was presented to and reviewed by the Quality Improvement Committee of the Department of Child and Adolescent Psychiatry and Behavioral Sciences.

The survey was sent to 130 CHOP providers at suburban and urban locations over a one-week time period. Thirty clinicians responded.

Results

Demographics

- 63% of respondents were psychiatry attendings, fellows, or nurse practitioners.
- Nearly all practiced in urban setting.
- Majority of respondents (75.8%) indicated that they prescribed stimulants for between 1-50 adolescents with ADHD.

Clinicians’ Knowledge

Clinicians have varying degrees of concern for what percentage of their patients are misusing stimulant medication, with 39% believing 0% are misusing their medication and 58% believing 1-3% are misusing their medication. Only 4% of clinicians believe 4-7% of their patients are misusing stimulant medications.

Clinicians’ Practice

Clinicians talk to their patients at varying time about stimulant misuse - with 77% discussing stimulant misuse at their initial evaluation; 73% discuss misuse when they suspect their patients are misusing stimulants; 58% of clinicians discuss stimulant misuse when they suspect substance abuse.

Which of the following topics do you review with your patients and their parents when discussing stimulant use? (Check all that apply)

- Answer Options: Response Percent
  - Parental monitoring and administration of medication: 84.6%
  - Abuse potential: 69.2%
  - Safe storage: 65.6%
  - Legal considerations of sharing, trading, or selling medications: 50.0%
  - Medical consequences of stimulant misuse: 46.2%
  - Refusal skills and/or guidance about requests from peers to share, trade, or sell medications: 19.2%

Clinicians discuss varying topics when addressing stimulant misuse with 84% discussing parental monitoring and administration. Only 19% of clinicians surveyed discuss refusal skills or provide guidance to patients about being approached to sell, trade, or give away their medication.

Helpfulness Ranking of Best Practice Alerts

- Would you find a best practice alert embedded in an electronic medical record a helpful reminder to discuss issues about stimulant misuse and diversion?
  - Yes: 51.9%
  - No: 48.1%

- Would you find a best practice alert embedded in an electronic medical record a helpful reminder to screen for stimulant misuse?
  - Yes: 58.6%
  - No: 41.4%

Discussion

- Clinicians are knowledgeable about stimulant misuse.
  - The vast majority of the clinicians surveyed are aware that immediate release amphetamines are most often misused. This knowledge is reflected in providers’ prescribing habits. Over 75% of clinicians surveyed report prescribing extended release formulations.
  - Clinicians are less knowledgeable about the prevalence of stimulant misuse and diversion. Given that 25% of adolescents who are prescribed stimulants are approached to sell, trade, or give away their medication, it is important that clinicians review the medical and legal consequences of sharing medications with their patients. Among surveyed providers, few (19%) discussed refusal skills with their patients. More clinicians should consider discussing tactics that teens can use if approached to share or sell their medications.
  - The majority of providers screen their patients for stimulant misuse.
  - Most clinicians surveyed discuss issues pertaining to stimulant misuse during the initial evaluation or when a stimulant is first prescribed. These issues should be reviewed periodically as the patient matures.
  - Providers’ concerns about stimulant misuse in the patients that they treat correspond with national trends. Over 50% of respondents suspected 1-3% of patients had misused stimulants in the past year. These results are similar results to a national survey of pediatric psychiatrists, pediatric neurologists, and developmental pediatricians where 59% of respondents suspected that one or more patients had diverted stimulants in the past year (3).
  - Some providers think a best practice alert in the electronic medical record would be helpful.
  - Future Directions
    - To increase providers’ knowledge about stimulant misuse, information about stimulant misuse could be reviewed at noon meetings, lectures, or assigned electronic learning modules.
    - To increase screening and discussions of stimulant misuse, a best practice alert could be included in the EMR for adolescent patients receiving stimulants.
    - To address prescription drug abuse providers could consistently use the Prescription Drug Monitoring Program and encourage patients and families to properly dispose of their unused prescription medications.

Limitations

This study was limited to 30 participants exclusively at Children’s Hospital of Philadelphia.

Contact Information

Morgan McCoy: mccoymorgan@emailchop.edu
Dr. Randall: randallt@emailchop.edu

References