Scope of the Problem

- Ritalin use for children began in 1990’s
  - Stimulant in the family of amphetamines
  - Also known as Methylphenidate (MPH)
- Use is rising dramatically for treatment of Attention Deficit Hyperactivity Disorder (ADHD)
- American children consume 90% of all the Ritalin produced worldwide
  - Estimated at 3-5 million children in U.S.
Scientific Research

“One of the most studied pediatric conditions”
- Many studies, but marginal results
- No proof of underlying neuropathy
- No ADHD diagnostic tests

“Hyperactive children are helped by Ritalin, at least in the short run.”
- MPH increases dopamine and norepinephrine levels
- Subdues children (exact action unknown)
“We don’t have an independent valid test for ADHD; further research is necessary to firmly establish ADHD as a brain disorder.”

“Existing studies come to conflicting conclusions as to whether the use of psychostimulants increases or decreases the risk of abuse.”

“After years of clinical research and experience with ADHD, our knowledge about the cause or causes of ADHD remain largely speculative.”
Marketing of Stimulants

- Millions of dollars have been spent by pharmaceutical companies to promote use of MPH, or similar drugs
Pro-Stimulant Statements

- “Compare the pills to eyeglasses. Explain that their medicine is simply a tool to help them focus and pay attention.”
- “ADHD is like diabetes in that both are due to a shortage of a chemical in the body.”
- “They are finding more and more evidence that ADHD does not stem from the home environment, but from biological causes.”
Side Effects of Ritalin

- Nervousness
- Sleep disturbances
- Dizziness
- Drowsiness
- Upset stomach
- Vomiting
- Loss of appetite
- Headache

Call physician immediately:
- Seizures or convulsions
- Blurred vision
- Agitation
- Skin rash
- Heart palpitations or irregular heartbeat
- Fever or sore throat
- Unusual bleeding/bruising
Drug Interactions

- MAO Inhibitors (Nardil, Parnate)
- Anticoagulants (Coumadin)
- Meds for depression (Elavil, Tofranil, Norpramin, Ismelin)
- Meds for epilepsy (Dilantin, phenobarbitol, Mysoline)
- Vitamins
Nursing Implications

- Ask about history of:
  - Severe anxiety, tension, mental illness
  - Glaucoma, seizures, HTN
  - Motor tics/spasms, Tourette’s syndrome

- Monitor growth, mood, aggressiveness, mental status, ability to sleep, CV status

- Check with Dr. if pregnancy is suspected
Teaching Needed

- Decrease caffeine intake
- Take MPH at least 6 hours before bedtime
- Give gum, hard candy or sips of water for dry mouth
- Avoid OTC medications and alcohol because of interaction risk
- Taper off MPH gradually over several weeks
- Prescriber may suggest “drug holidays” to assess progress
- Do not drive or operate machinery until effects of drug are determined
Response of Parents

- Parents rave about success of the drug
  - “My child was a monster without it.”
  - “Our family life was in turmoil until Ritalin.”
- A pill is easier and cheaper than family counseling and/or private tutors
Response of Physicians

- Physicians who do not believe in Ritalin are going “against the grain”
  - Issues of managed care may interfere with alternative treatments
  - Parents insist on the “performance enhancing pill”
Community Issues

- Pressure from school districts to have children evaluated for ADHD
  - Parents do not want their child labeled with disease
  - But, children on MPH are easier to control
- Medical evaluation depends primarily on reports by teachers and parents
Response By Opponents

- Serious side effects, including growth retardation and “zombie-like” appearance
- Class action lawsuits by parents have cited fraud, collusion by manufacturers
- Forty years of lab animal research found MPH toxic, addictive, and dangerous
- There are psychological and social therapies for children that don’t involve drugging with amphetamines
Possible Therapies

- Psychotherapy
- Behavioral therapy
- Behavior modification
- Counseling
- Family therapy
Issues of Performance Enhancing Drugs

- ADHD may merely be the upper end of biological variability, not faulty genes
- Pro-Ritalin advocates consider gene manipulation in the womb
- College students may use Ritalin to give them extra focus
- Some parents chose to give MPH to well-behaved but underperforming children
- Some “experts” suggest that the answer to our country’s sociological problems is giving MPH
Question

- If there was widespread cognitive enhancing drug use by adults as well as children, what impact would it have
  - On human society?
  - On our society’s values?
  - On social justice and equality?
- How would it impact education, employment, or other opportunities for children and adults?
“Treatment can mean the difference between a kid ending up at Berkeley or ending up in prison. This is a disorder where we can really make a difference.”

*Dr. James Swanson, an ADHD expert*

Pharmacology can participate, very modestly, in one of the major efforts of humanity, which is to go beyond the Platonic question, “Who are we”?  
*Dr. C. Giurgea, French visionary (1972)*
Ethical Conflicts

- MPH has potential for addiction
- May produce toxic state involving psychosis
- Has powerful (and possibly irreversible) CNS effects

Worldwide, governments restrict availability of amphetamines to adults. But nurses are to give MPH to children and teens in schools and other settings.
Problem Solving

- Nurses need to decide how they stand on this ethical issue
- Be aware of developments and options
  - Educate families
  - Children may do better with smaller class sizes, or more art, music, and physical education
- Our country needs to take the first step—admit we have a drug problem
References


This Powerpoint was created in 2005 as a graduate student.