



Appropriate Use Of Medications

Resources

- Kollins, S.H., Barkley, R.A., & DuPaul, G.J. (2001). Use and management of medications for children diagnosed with ADHD. *Focus on Exceptional Children*, 33(5), 1-12. Suggests procedures schools and families should use in collaborating with the prescribing physician in regulating psychopharmacologic treatment for children with ADHD & related disorders.
- Gadow, K. & Sprafkin, J. (1994). *Child symptom inventory manual*. Los Angeles: Western Psychological Corporation. A series of rating scales, based on DSM IV, that can be used to screen for presence or absence of a psychiatric diagnosis and any co-occurring diagnoses. There are parent and teacher versions and preschool, child, and adolescent levels & is used for a preliminary referral diagnosis in any child who seems unresponsive to standard behavioral interventions.
- Dulcan, M.K., & Lizarralde, C. (2002). *Helping parents, youth, and teachers understand medications for behavioral and emotional problems: A resource book of medication handouts, (2nd edition)*. Washington, D.C.: American Psychiatric Association. A collection of fact sheets for parents, youth, and teachers. Each is devoted to a class of medications and provides basic data on each. A CD-Rom is included.
- Konopasek, D.E. (2003). *Medication Fact Sheets*. Longmont, CO: Sopris West. Also a collection of fact sheets but with a separate sheet for each medication intended for teachers and other non-medical professionals. Includes a glossary of and is updated annually.
- *Child and Adolescent Psychopharmacology News*. (Published by Guilford Press, 72 Spring Street, New York, NY 10012). Website at www.guilfordpress.com. This newsletter is published 6 times per year and not only has mini-reviews of research on various drugs or psychopharmacologic topics but also has abstracts of relevant original research studies and updates.
- Wilens, T.E. (2001). *Straight talk about psychiatric medication for kids*. New York: Guilford Press. This book is a comprehensive overview of psychopharmacology written for parents and non-medical practitioners.

The use of medication to manage or control children's behavior (or "child psychopharmacology" as it is generally known) is a controversial field. At least 3 states (Connecticut, Texas, and Virginia) have passed laws forbidding school professionals from referring parents for their children's psychopharmacologic treatment, based at least partly on largely erroneous information about rampant misuse of these drugs (Jensen, 2002). Effective and appropriate use of psychopharmacology, however, is a significant, evidence-based practice in treating mental health disorders in children and adolescents (Forness & Kavale, 2001). For certain disorders, this evidence suggests that psychopharmacologic treatment is, in fact, more effective than standard behavioral interventions in both school and home settings (Forness, Kavale, & Davanzo, 2002). School professionals, therefore, need to be at least somewhat knowledgeable about psychopharmacology. It can not only be an important intervention for children in their care, but school collaboration with prescribing physicians can also significantly enhance the effectiveness of these medications. Thus it is a potentially critical element in managing severe disruption or even aggression in children with intense or chronic behavior disorders, and an appropriate consideration in an overall plan for safe and responsive schools.

What We Know About Psychopharmacology

In the field of psychopharmacology, there are several classes of medication for children and adolescents that usually, but not invariably, correspond to the major types of psychiatric disorder (Konopasek & Forness, in press). For children or adolescents with Attention Deficit Hyperactivity Disorder (ADHD), **psychostimulants** are usually the first-line treatment of choice. These drugs stimulate the neurotransmitter, dopamine, thus enhancing the child's ability to control his or her attention and behavior. Stimulants include medications such as Ritalin, Adderall, and Dexedrine. These drugs are relatively quick acting, showing a therapeutic effect generally within the first hour and lasting varying lengths of time throughout the day. Ritalin is generally effective only for 3 or 4 hours and may thus have to be given 2 or 3 times daily. There are now extended-release formulas such that Ritalin can last as long as standard forms of Dexedrine and Adderall, which last for most of the day or even into early evening. These drugs have been more widely studied than all other psychopharmacologic medications combined and are relatively safe and effective. Adverse side effects mainly involve loss of appetite, insomnia, stomachache, or headache; but these may disappear with careful titration of the drug.

Titration is a process whereby the prescribing physician begins with a relatively low dose and, based on feedback from teachers and parents, adjusts the dose upwards or downwards based not only on therapeutic effects but also on presence or absence of side effects. If the first-line drug cannot be effectively titrated (because of lack of therapeutic effects or persisting side effects), another stimulant is tried. After unsuccessfully trying two or more stimulants, the physician may switch to a second-line medication such as one of the atypical antidepressants (mentioned below). A new nonstimulant medication, Strattera, may also be used as a second line drug. In best practice, this process of systematically trying various drugs is usually done according to a standardized algorithm (AACAP, 2002).

The next class of medications is for children or adolescents with depression or other mood disorders. **Antidepressants or mood stabilizers** include selective serotonin reuptake inhibitors (SSRIs) such as Prozac or Zoloft, atypical antidepressants such as Effexor or Wellbutrin, and mood stabilizing drugs such as Lithium or Depakote. The older tricyclic medications, such as Tofranil or Anafranil, may still be used for treatment resistant or other severe forms of depression. Antidepressants are more difficult to titrate, and the algorithms are more complex. They may take up to 3 or 4 weeks to show an initial effect on depressed or irritable mood although, within the first few days, they may favorably impact sleep or eating problems and other physical symptoms. Their side effects (such as headaches, stomachaches, agitation, or dizziness) may also be difficult to overcome in

children and adolescents. The third major class of medications is for children with schizophrenia or other psychotic disorders. The **neuroleptics** include traditional antipsychotics, such as Haldol or Thorazine, along with the newer, more effective, atypical neuroleptics such as Risperdol, Zyprexa, or Seroquel. Both types may initially improve agitated behavior within the first hours of use but may take up to 6 or 8 weeks to fully impact hallucinations, delusions, thought disorders, or social withdrawal. The side effects (including sedation or abnormal facial or motor movements) can also be difficult to control effectively, though some side effects are indeed preferable to recurring full-blown psychotic episodes.

There are **other classes of medication** such as *anxiety-breaking* medications like Klonopin or Ativan (though considerable evidence now suggests that SSRI's or atypical antidepressants may be more effective for most anxiety disorders) or *antihypertensives*, such as Clonidine or Tenex, for Tourettes disorder and related symptoms. Atypical neuroleptics have also been used effectively for treatment of resistant depression or mood disorders, and anxiety that co-occurs or is comorbid with ADHD has responded to effective use of stimulants. Thus the use of one drug for one disorder is largely disappearing; and comorbidity among these disorders has led to more effective use of polypharmacy, using one or more medications in systematic ways to control complex combinations of various disorders in a single case.

Finally, the field of psychopharmacology has begun to accumulate an impressive evidence base. This is most obvious in stimulant treatment for ADHD. Recent meta-analyses and a large-scale treatment study comparing stimulant treatment versus behavioral intervention suggest that effective medication use may be slightly better than even intensive behavioral treatment (Forness & Kavale, 2001; Forness, Kavale & Davanzo, 2002). Using *combined* medication and behavioral intervention may indeed be twice as effective as using behavior modification alone and is indeed best practice. Although other classes of medication have not been as extensively studied, treatment algorithms suggest that 50 to 70% of children with depressive, bipolar, schizophrenia, or related disorders may show a significant therapeutic response without significantly adverse side effects (Konopasek & Forness, in press). These response rates are approximately equal to those obtained by behavioral or cognitive behavior therapies.

Making It Work

In order to ensure that medication will be used effectively, schools must consider their role in each of the major steps of psychopharmacologic treatment. *First* is the referral. After behavioral supports have been put in place, school professionals must be prepared to initiate referrals for those children who are not responding in predictable ways. Screening for possible psychiatric diagnoses may assist parents in determining if the referral should go to a board certified child psychiatrist, for severe or complex disorders, or may only require referral to a pediatrician or family practitioner (Forness, Walker & Kavale, in press). *Second*, school professionals must help prepare the child and family for the fact that titration and

treatment algorithms may dictate a potentially long and involved process. More so than for other medicines, extended family cooperation and persistence are integral to finding the right psychopharmacologic medication and the correct dose. *Third*, school professionals must collaborate with prescribing physicians and provide systematic feedback (on behavioral rating scales, side-effect ratings, or other measures) on the child's or adolescent's functioning during titration and periodically thereafter. *Fourth*, schools should develop procedures for emergencies (acute or dangerous adverse events, the child's forgetting to take his or her medication, and the like) and for long-term monitoring of medication effectiveness.

It should be noted here that, under IDEA, schools could potentially be held liable for costs of psychopharmacologic services if they are not judicious in their phrasing of the recommendation to refer. School professionals can generally avoid such liability by stressing that they have provided all appropriate behavioral interventions, as required and legally permissible under IDEA, to effect the child's social and academic progress. They can then add that there *may* be additional problems occurring at home or other settings that might be responsive to psychopharmacologic treatment and that they would be happy to assist in referral sources and collaboration. Such a statement about unaddressed problems is almost invariably likely to be true given the nature of such disorders (Pennington, 2002).

Conclusion

Effective psychopharmacologic treatment involves early recognition that some school attention or behavioral problems may ultimately represent prodromal or beginning symptoms of a psychiatric disorder such as ADHD, depression, anxiety disorder, schizophrenia, or other diagnoses. The ability of school professionals to detect such disorders, make proper referrals, collaborate with prescribing physicians, and provide ongoing support for families in this process is critical.

Steven R. Forness, UCLA Neuropsychiatric Hospital, May, 2003

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About the Safe and Responsive Schools Project

The Safe and Responsive Schools Project, funded by the U.S. Department of Education, Office of Special Education Programs, is dedicated to developing prevention-based approaches to school safety, discipline reform and behavior improvement in schools.

Websites: <http://www.indiana.edu/~safeschl/> or <http://www.unl.edu/srs/> Or Contact:

Russell Skiba, Indiana Education Policy Ctr., 170 Smith Ctr., 2805 E. 10th Street, Bloomington, IN 47408; 812-855-1240; skiba@indiana.edu, or

Reece L. Peterson, 202A Barkley Center, University of Nebraska-Lincoln, Lincoln, NE 68583-0732; 402-472-5480; rpeterson1@unl.edu ©2003 Skiba & Peterson