OPTIMIZING THE EDUCATIONAL EXPERIENCE FOR STUDENTS WITH ADHD: a multidisciplinary approach

THE UNIVERSITY OF ALABAMA

Michelle S. Harcrow, M.S.
Assistant Director, Health Education and Promotion
Student Health Center

Judy Thorpe, M.Ed, CRC
Director, Office of Disability Services

Mark H. Thomas, M.D., FSAHM
Staff Physician, Clinical Assistant Professor
Student Health Center
Introduction

ADHD Student

—or—

University of Michigan Student Athlete & Olympian who has been diagnosed with ADHD?
Program Objectives

1. Explain the process of obtaining academic accommodations for students with ADHD and other learning disabilities.

2. Identify the role of health education tools in assisting students with ADHD to overcome the challenges of a college environment.

3. Discuss the principals of an optimal multifaceted treatment approach for college students with ADHD.
Optimizing ADHD Therapy in Adolescents and College-aged populations

Background:

• ADHD is a common neurobehavioral disorder that affects Adolescents and College-aged populations.
• The pharmacotherapy of ADHD involves the use of medications which can be quite effective when optimally managed.
• Many students with ADHD are being treated less than optimally.
• Educating students about the medication therapies for ADHD is an important activity for clinical practitioners in optimizing treatment and preventing misuse of the medication.
Prevalence of AD/HD in College Students

- 7-8% of students reported clinically significant levels of symptoms in one study (Weyant, et al., *J Psychopath & Behav Assess*, 1995)
- 4% reported DSM III-R criteria in another study (Heilingenstein, et al., *JACH*, 1998)
- 6.9% reported symptoms in United Kingdom study (Pope, et al., *Psych Learning & Teaching*, 2007)
- Another study comparing US v. Chinese students showed 4.4% vs. 7.8% respectively reported ADHD symptoms (Norvilitis, et al., *J Attn Disorders*, 2008)
Executive functions

– **Activation**
  - Organizing
  - Prioritizing
  - Activating to work

– **Focus**
  - Focusing
  - Maintaining attentiveness
  - Shifting attention

– **Effort**
  - Regulating alertness
  - Sustaining effort
  - Processing speed

– **Emotional regulation**
  - Managing frustration
  - Modulating emotions

– **Working Memory**
  - Accessing recall
  - Utilizing working memory

– **Monitoring**
  - Monitoring efforts
  - Self regulation
Delay in Presentation

• Why college students may not have been diagnosed sooner:
  – Predominantly inattentive
  – Have mental rather than physical overactivity
  – Supportive, higher functioning families who help them overcome problems for a time
  – Higher IQ
  – Now unable to meet more rigorous demands of college but could get by without intense individual study in high school
Optimizing ADHD Therapy in Adolescents & College-aged populations

CONSEQUENCES OF UNTREATED ADHD
Consequences of untreated ADHD

- Greater risk for certain types of accidents and injuries.
- School failure and drop out
- Higher incidence of depression and anxiety
- Increased amount of legal troubles
- Interference with peer and family relationships
- Job failures and frequent job changes
Adults with AD/HD

- 2x more likely to rarely or never use birth control
- 4x more likely to have contracted a sexually transmitted disease
- 3x more likely to be currently unemployed
- 2x more likely to have problems keeping friends
- 47% more likely to have trouble paying bills

AD/HD and driving

• AD/HD in adolescents and young adults associated with
  – Worse driving habits
  – 3x more likely to be involved in a MVC
  – More accidents at fault
  – More accidents with injury
  – Greater $$$ damage in accidents
  – More speeding tickets
  – Greater likelihood of license revoked / suspended

AD/HD and sexual risk behaviors

- Adolescents and young adults with AD/HD
  - Earlier age of first intercourse
  - More sexual partners
  - Less use of birth control
  - More sexually transmitted infections
  - Greater frequency of HIV testing
  - More unintended pregnancies

AD/HD and Substance Abuse

Adolescents and young adults with a childhood diagnosis of ADHD

• ~3x more likely to smoke QD
  (30.4% vs. 12%)
• consumed more cigarettes in past 6 mo
• ~2x as likely intoxicated >1x in last 6 mo
  (23.2% vs. 12%)
• higher rates of EtOH problems overall
  (15.5% vs. 8.5)
• 3x more likely to use < one illicit drug beside MJ
  (20.4% vs. 7%)

Self medication

- Students with untreated AD/HD often self-medicate with
  - Caffeine (non-specific stimulant)
  - Nicotine (non-specific stimulant)
  - ADHD medication Rx’d to others
  - Alcohol (relief of stress, improve socialization)
  - Marijuana (relief of anxiety / stress)
The Good News

• Studies suggest that adequate treatment (usually with stimulant medication) can lessen the frequency of
  – Substance abuse problems
  – Sexual risk behaviors
  – Adverse driving outcomes

• Re-enforces the importance of adequate treatment QD, covering as much of day as feasible
Free at Last: Common Mistakes

- Many feel it is their time to be free of medication
- Lose their scholarships and end up on probation or having to sit out
- May not understand the condition and how medication works
How Many Continue to Need Medication in College?

• Up to 2/3 of those with ADHD in childhood will have symptom persistence into young adulthood

• Some studies suggest greater percentage need to continue medication
Optimizing ADHD Therapy in Adolescents & College-aged populations

PHARMACOLOGIC TREATMENT OPTIONS
Choice of medications in college students

- **Stimulants remain first line tx**
  - Methylphenidate
  - Dexmethylphenidate
  - Dextroamphetamine
  - Mixed amphetamine salts
- **If one does not work, try another (then another)**
- **Second line medications**
  - Atomoxetine
  - Bupropion
  - Tri-cyclic anti-depressants
  - Clonidine
  - Guafancine
STIMULANTS
STIMULANTS

AMPHETAMINES
- ADDERALL (mixed amphetamine salts)
- DEXEDRINE (dextro-amphetamine)

METHYLPHENIDATES
- RITALIN (methylphenidate)
- FOCALIN (dexmethylphenidate)

Immediate release
- ADDERALL XR
- DEXEDRINE SPANSULES
- VYVANSE
- RITALIN LA
- METADATE CD
- CONCERTA
- DAYTRANA
- FOCALIN XR

Extended release
Methylphenididates vs. amphetamines

• In a trial of both amphetamine and MPH.
  – approximately 41% of subjects with ADHD responded equally to both MPH and AMPH
  – 44% responded preferentially to one of the classes of stimulants.

• A meta-analysis of the 5 studies in children that compared MPH to AMPH in blinded crossover conditions found
  – about 37% of patients had a clearly better outcome on an AMPH preparation
  – 26% had a clearly better response to MPH
  – . The other 37% of stimulant responders responded equally well to either molecule

Arnold LE (2000), J Atten Disord 3:200-211
Useful strategies for managing common stimulant-induced adverse effects

• **Rebound phenomenon**
  – Overlap stimulant dosing.
  – Change to long-acting preparation or combine long- and short-acting preparations.
  – Switch stimulant molecules
  – Consider adjunctive or alternative treatment (e.g., clonidine, antidepressants).

• **Irritability**
  – Assess timing of phenomena (during peak or withdrawal phase).
  – Evaluate comorbid symptoms.
  – Reduce dose.
  – Consider adjunctive or alternative treatment (e.g., lithium, antidepressants, anticonvulsants).

• **Dysphoria, moodiness, and agitation**
  – Consider comorbid diagnosis (e.g., mood disorder)
  – Reduce dose or change to long-acting preparation
  – Consider adjunctive or alternative treatment (e.g., lithium, anticonvulsants, antidepressants).
NON-STIMULANTS
Medication Types and Forms

- Non-stimulants
  - Atomoxetine (Strattera) only nonstimulant specifically for ADHD
  - Bupropion (Wellbutrin)
  - Imipramine (Tofranil)
  - Clonidine (Catapres)
  - Guanfacine (Tenex)
  - Guanfacine Extended Release (Intuniv)
INTUNIV®
(guanfacine ER)

- Alpha 2 A central receptor agonist
  - Positive effect on working memory but not as robust as stimulants
  - Positive effect on impulsiveness and overactivity
  - Positive effect on aggression and oppositional symptoms
  - Duration appears to be 24 hours
  - No stimulant side effects
• It has been used in short acting form at all ages for years
• Some insurers are declining it due to the FDA approved age being 6-17 years of age
• Some evidence that immediate release may be similar in some patients if they don’t have the sleepiness side effects
Optimizing ADHD Therapy in Adolescents & College-aged populations

ACHIEVING OPTIMAL CARE
Shifting the paradigm

**Old school paradigm**
- Minimal effective dose
- Covering only “events”
  - e.g. class & studying
- Frequent Drug holidays

**New paradigm**
- Covering all waking hours
- Titrate to optimal dose
  - Greatest effectiveness
  - Longest duration
  - With minimal / tolerable adverse effects
- Drug holidays – rare or none
Results of Old School Paradigm

• Inadequate effectiveness
• More frequent Adverse Effects
• Love / hate relationship with medication
  – Medication seen as inherently “bad” and to be avoided
  – Adolescents often quit taking meds at crucial times
• Long-periods uncovered
  – Greater risk of consequences from untreated ADHD
Lack of optimal dosing

- In the community treatment of ADHD, stimulant dosing for children seems to fall well below dose ranges reported to be optimally effective in clinical trials.

Three main questions

• Is medication **STRONG ENOUGH**?
• Does medication last **LONG ENOUGH**?
• Are the **ADVERSE EFFECTS TOO ROUGH**?
<table>
<thead>
<tr>
<th>Please rate how well medication is helping in these areas</th>
<th>Please circle the best response</th>
<th>(N/A = not applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustaining my Attention in Class</td>
<td>very helpful</td>
<td>helpful</td>
</tr>
<tr>
<td>Being Able to Concentrate While Studying Outside of Class</td>
<td>very helpful</td>
<td>helpful</td>
</tr>
<tr>
<td>Paying More Attention to Details</td>
<td>very helpful</td>
<td>helpful</td>
</tr>
<tr>
<td>Being Less Easily Distracted by Things around Me</td>
<td>very helpful</td>
<td>helpful</td>
</tr>
<tr>
<td>Finishing Assignments without Taking Too Long</td>
<td>very helpful</td>
<td>helpful</td>
</tr>
<tr>
<td>Avoiding Trouble from Impulsively Acting before Thinking</td>
<td>very helpful</td>
<td>helpful</td>
</tr>
<tr>
<td>Refraining from Interrupting Others While Talking</td>
<td>very helpful</td>
<td>helpful</td>
</tr>
<tr>
<td>Keeping My Mind on the Road While Driving</td>
<td>very helpful</td>
<td>helpful</td>
</tr>
<tr>
<td>Remembering Appointments</td>
<td>very helpful</td>
<td>helpful</td>
</tr>
<tr>
<td>Having Better Organizational Skills</td>
<td>very helpful</td>
<td>helpful</td>
</tr>
<tr>
<td>Managing My Daily Activities More Effectively</td>
<td>very helpful</td>
<td>helpful</td>
</tr>
<tr>
<td>Regulating My Emotional Responses</td>
<td>very helpful</td>
<td>helpful</td>
</tr>
</tbody>
</table>
Does medication last LONG ENOUGH?
(Does medication work well during each segment of the day?)
Are the ADVERSE EFFECTS TOO ROUGH?

<table>
<thead>
<tr>
<th>Adverse Effects</th>
<th>If present, how severe?</th>
<th>How frequent?</th>
<th>Is this related to medication?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appetite decrease</td>
<td>none</td>
<td>mild</td>
<td>rare</td>
</tr>
<tr>
<td>Sleep disturbance</td>
<td>none</td>
<td>moderate</td>
<td>occasional</td>
</tr>
<tr>
<td>Daytime drowsiness</td>
<td>none</td>
<td>severe</td>
<td>frequent</td>
</tr>
<tr>
<td>Headaches</td>
<td>none</td>
<td>mild</td>
<td>occasional</td>
</tr>
<tr>
<td>Stomach upset</td>
<td>none</td>
<td>moderate</td>
<td>frequent</td>
</tr>
<tr>
<td>Irritability/Mood swings</td>
<td>none</td>
<td>severe</td>
<td>frequent</td>
</tr>
<tr>
<td>Dry mouth</td>
<td>none</td>
<td>mild</td>
<td>occasional</td>
</tr>
<tr>
<td>Jitteriness</td>
<td>none</td>
<td>moderate</td>
<td>frequent</td>
</tr>
<tr>
<td>Heart races / skips beats</td>
<td>none</td>
<td>severe</td>
<td>frequent</td>
</tr>
<tr>
<td>Harder to have fun</td>
<td>none</td>
<td>mild</td>
<td>occasional</td>
</tr>
<tr>
<td>Tics</td>
<td>none</td>
<td>moderate</td>
<td>frequent</td>
</tr>
<tr>
<td>Blunted personality</td>
<td>none</td>
<td>severe</td>
<td>frequent</td>
</tr>
<tr>
<td>Suicidal thoughts</td>
<td>none</td>
<td>mild</td>
<td>occasional</td>
</tr>
<tr>
<td>Others:</td>
<td>none</td>
<td>mild</td>
<td>occasional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>moderate</td>
<td>frequent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>severe</td>
<td>frequent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>rare</td>
<td>occasional</td>
</tr>
</tbody>
</table>
Secondary questions

• During which hours of the day is the student *in class*?
• During which hours of the day is the student *studying*?
• During which hours of the day is the student *working*?
• During which hours of the day is the student *sleeping*?
Secondary questions

• Is the patient **complying** with the medication prescription?
• Is the medication being **diverted** to others?
Ultimate questions

• **How satisfied** is the student with the medication?

• **What changes** would the student make to the medication if she or he could?
Drug Holidays

**Valid Reasons FOR Drugs Holidays**
- Weight loss to below acceptable BMI
- Significant AEs on all effective medications
- Risk of abuse or diversion of medication

**Valid Reasons AGAINST Drug Holidays**
- AD/HD affects all areas of life
- One doesn’t stop learning after class
- Important tasks to complete in other places
- Extinguishing AEs
- Reducing risk of risky behaviors due to impulsivity
- Consistency
- Driving safety
- Avoid re-titration of meds
Keys to compliance

- Spending time to educate patient about AD/HD
- Dispel myths about medication
- Discuss possible adverse effects and ways to minimize
- Enlist patient as part of treatment team
- Empower patient with feeling of control
- Negotiate trials on or off medication
- Start with low dose and titrate to effective dose
Optimizing ADHD Therapy in Adolescents & College-aged populations

OPTIMIZING DOSAGE OF ADHD MEDICATIONS
Principles of pharmacologic tx of AD/HD in adolescents

• Start with low dose and gradually taper up to minimize adverse effects
• Aggressively titrate to most effective dose with minimal or no adverse effects
• Most effective dose based on individual response rather than standard mg/kg dose
• Administer meds frequently enough to cover all AD/HD symptoms & homework
• Consider co-morbid symptoms
Principles of pharmacologic tx of AD/HD in adolescents -2

• Longer acting forms preferred
  – Increase satisfaction
  – Improve compliance
  – Lessen risk of abuse

• Reassess dose frequently
  – Assess for effectiveness
  – Assess for duration of effect
  – Assess for changing needs

• Most adverse effects diminished or extinguished with consistent QD dosing
  – Most AEs greatly reduced within 2-3 weeks
  – Appetite suppression takes longer to diminish

• Frequent monitoring needed for adverse effects, compliance, abuse, diversion
Dosing of stimulants

- In clinical practice, the dosage is determined by individual subject response.
- No identified parameter predicts the molecule, dose, timing of dose, and frequency of dose at which a unique individual will derive optimal benefit from medication.
- FDA guidelines tend to be cautious and vague about the methods and expected outcomes of dosages of the first-line agents.
- There is a dose that is unique to each patient that provides optimal performance with a low level of side effects. This is usually found through a trial and error fine-tuning of the molecule and dose.
- In clinical practice, stimulant class medications are adjusted to the needs and responses of the individual patient in at least five ways:
  - molecule
  - delivery system
  - dose,
  - duration
  - frequency

Dosing of stimulants

• Many adults [& college students] have very long days and need medication in multiple settings other than work [and school].

• Total # doses / day taken by a particular patient determined by number of factors
  – tasks to be performed
  – duration of medication action
  – use of XR vs. IR formulations
  – extent of side effects
  – [considerations of protective effects vs. risky behaviors including driving safety]

• Subsequent doses are commonly overlapped by 30 minutes [1 hr] so that 2nd dose can be absorbed while 1st dose is wearing off in order to minimize rebound effects.

Treating adolescents / young adults with doses above the standard “recommended daily doses”

- 2-fold rationale:
  - (1) the recommended daily dose is simply inadequate for a sizable number of adolescent / young adult patients & larger doses can be used safely with proper monitoring
  - (2) the recommended daily dose assumes a treatment time of ~ 8 hrs
    - most adolescents and especially college students are involved in activities requiring attentiveness for many more hours of the day
    - impossible to treat for 12 - 16 hrs with the same total amount of medication as recommended for 8 hours.
# Maximum medication doses

<table>
<thead>
<tr>
<th>Brand Name</th>
<th>FDA Max / day</th>
<th>Off-label Max / day</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDERALL</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>ADDERALL XR</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>DEXEDRINE SPANSULE</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>VYVANSE</td>
<td>70</td>
<td>Not yet known</td>
</tr>
<tr>
<td>RITALIN (IR)</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>METADATE CD</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>RITALIN LA</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>CONCERTA</td>
<td>72</td>
<td>108</td>
</tr>
<tr>
<td>DAYTRANA (patch)</td>
<td>30</td>
<td>Not yet known</td>
</tr>
<tr>
<td>FOCALIN XR</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>STRATTERA</td>
<td>Lesser of 1.4mg/kg or 100mg</td>
<td>Lesser of 1.8mg/kg or 100mg</td>
</tr>
</tbody>
</table>

Options for extending coverage

<table>
<thead>
<tr>
<th>Time</th>
<th>School Activities</th>
<th>Extracurricular, studying, driving, part-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00am</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00am</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:00pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:00pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:00pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00pm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midnight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IR stimulant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR stimulant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR stimulant</td>
<td></td>
<td>IR stimulant</td>
</tr>
<tr>
<td>OROS methylphenidate (Concerta)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lisdextroamfetamine (VYVANSE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR stimulant</td>
<td></td>
<td>SR stimulant</td>
</tr>
<tr>
<td>Atomoxetine (Strattera), bupropion or TCA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
THE PROBLEM OF DIVERSION
Are ADHD Meds Really Addictive?

• Protective tendency of stimulant treatment for ADHD
Diversion

• These medications are diverted
  – Why?
    • Enhance performance in high pressure academic settings
    • Allow improved life management and executive function
    • Allow improved input and storage of data learned
    • Improve completion of tasks
  – What risk is associated with diversion?
    • What are they using it for?
Diversion

• What do they use it for?
  – To study
  – To stay awake longer and drink more?
  – To potentiate other drugs?
  – To stay up and work longer hours?

• Is it due to difficulty with getting treated legitimately?
Abuse

• “Nonmedical Use” Norvak SP et al. Subst Abuse Treat Prev Policy. 2007; 2:32
  – Past year prevalence of Nonmedical Use was 2%
  – Prevalence differed very little between different age groups – highest 4% in 18-25y/o
  – Euphoric recall
  – True high?
Strategies for managing common stimulant-induced adverse effects

• **Anorexia, nausea, weight loss**
  – Administer stimulant after meals.
  – Encourage breakfast.
  – Use caloric-enhanced supplements.
  – Discourage forcing meals.
  – Prescribe cyprohepatididine to increase appetite (off-label usage)

• **Insomnia**
  – Administer stimulants earlier in day.
  – Change to short-acting preparations.
  – Discontinue or lessen late afternoon or evening dosing.
  – Consider adjunctive treatment *(e.g., antihistamines, antidepressants, other sleep aids)*.

• **Poor or variable absorption**
  – Avoid citric and ascorbic acid for 1 hour prior to the stimulant dose.
Diversion of ADHD medications

- Systematic literature reviewed showed range of 5% to 35% in college-age individuals

College Students Using Meds Without Diagnosis

• Duke web based study – 5-7% used ADHD meds without Rx
  – Most used it for academic reasons
  – 70% felt it was a positive experience
  – 23% felt it always decreased appetite
  – 15.6% said it always made it difficult to get to sleep
  – 7 percent said they were always more irritable
Diversion of controlled ADHD prescriptions

Sample of 9161 undergraduate college students.

- 8.1% = lifetime rates of illicit use of prescription stimulants
- 5.4% within the past year rates
- Overall greater rates of illicit use than medical use of ADHD medications.
- Most common source of medication was from peers

McCabe S, et al, J Psychoactive Drugs. 2006
Diversion of controlled ADHD prescriptions

Sample of 334 college students
- 25% of those with ADHD reported having ever used their medication “to get high”
- 29% reported having ever given or sold ADHD medication to someone else

Sample of 50 college students who misused methylphenidate
- 30% used it only to study better
- 70% used it recreationally
  - Those who used MPH recreationally were more likely to use it intra-nasally and to use it with other substances

Diversion of controlled ADHD prescriptions

Sample of 1025 college students

- **16%** had **abused or misused** prescription stimulants

- Reasons cited for misuse
  - improve attention
  - to "party"
  - to reduce hyperactivity,
  - to improve grades.

- Most abusers and misusers in that study preferred methylphenidate.

- The majority swallowed the medication, while 40% snorted it.

*Prudhomme, et al., J Am Coll Health. 2006*
The science behind diversion

• Stimulants used to treat ADHD raise the levels of extracellular dopamine in the brain.
• Both the therapeutic and reinforcing effects of stimulants appear to be related to elevations in extracellular dopamine.

Volkow ND, et al. Arch Gen Psychiatry. 1995

• Abrupt and rapid increases in dopamine are associated with reinforcing effects,
• Steady-state and slower dopamine increases are associated with therapeutic effects.

Volkow ND, Swanson JM. Am J Psychiatry. 2003
The science behind diversion - 2

- Inhaling, smoking, or injecting stimulants done more easily with immediate-release than with extended-release preparations enhance the reinforcing (addictive) effects.

- Oral administration may improve therapeutic effects, with lower reinforcing (addictive) properties as compared with inhaling, smoking, or injection routes of administration.

- Among oral preparations, extended-release formulations may enhance therapeutic effects while further reducing reinforcing effects.

Volkow ND. Am J Psychiatry. 2006
Ways to reduce diversion

• Preferentially use medications less likely to be diverted
  – Extended-release medications
  – Pro-drugs (e.g. VYVANSE)
  – Alternative delivery forms (e.g. DAYTRANA patches)
  – Non-stimulants (e.g. STRATTERA)
• Only prescribe stimulants to patients after a careful evaluation confirming AD/HD
• Limit the amount of pills given on each prescription
• Discourage “PRN” usage of medication
• Do not give early renewal of prescriptions
• Limit “replacement Rx’s” for lost of stolen Rx’s
• Educate patients about possible dangers and legal consequences of “sharing” medication
• Be wary of non-compliant students
  – show up infrequently
  – need last minute Rx before finals (prime time for “study pill” sharing)
Optimizing the Educational Experience for College Students with ADHD: THE DISABILITY SERVICES COMPONENT
Prevalence

• Estimates: 1-3% of college students have ADHD
• Postsecondary institutions note higher increase in some disabilities than others
• Of college students with disabilities, 2 in 5 have ADHD or LD; 42% female
• DSS offices report 25% of registered students using accommodations for ADHD
• Caveat – numbers are inexact
### Students Registered with UA’s Office of Disability Services, 2009-2010

<table>
<thead>
<tr>
<th>Disability Type</th>
<th>Number Registered</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Disabilities</td>
<td>162</td>
<td>13.4</td>
</tr>
<tr>
<td><strong>ADHD</strong></td>
<td><strong>406</strong></td>
<td><strong>34</strong></td>
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<tr>
<td><strong>LD/ADHD</strong></td>
<td><strong>267</strong></td>
<td><strong>22</strong></td>
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<tr>
<td>Mobility</td>
<td>16</td>
<td>1.2</td>
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<td>Sensory</td>
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<td>Systemic</td>
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<td>Psychiatric</td>
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<td>13</td>
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<tr>
<td>TBI</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>Temporary</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1201</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>% of REGISTERED STUDENTS WITH ADHD OR ADHD/LD</td>
<td>56</td>
<td></td>
</tr>
</tbody>
</table>
ADHD and ADHD/LD at UA, 2002-2010
Peer Comparisons

• Fewer with ADHD attend postsecondary programs compared to peers $^3$
• Lower rate of academic achievement than non-ADHD peers $^4$
• More academic problems $^5$
• Lower graduation rate $^6,^7$
LEGAL UNDERPINNINGS
Major Milestones: Educational Accommodations

• Section 504 of the Rehabilitation Act of 1973
• IDEA – PL 94-142, 1975
• The Americans with Disabilities Act, 1990
• ADA Amendments Act, 2008
Section 504 of the Rehabilitation Act of 1973

- First statute to require programmatic access at the postsecondary level
- Applicable to all postsecondary institutions receiving Federal funds of ANY kind
- Disability discrimination prohibited
- Requires equivalent, effective, integrated access
The Americans with Disabilities Act of 1990

- Expanded coverage of Sec. 504 to employment, private entities, transportation, telecommunication

- Signed by Pres. George H.W. Bush, 7/26/90
The Americans with Disabilities Act Amendments Act of 2008

- Attempt to return ADA to intent of original law
- Case law restrictions disqualified many who were “substantially limited”
- ADA-AA became effective 1/1/09
Definition of Disability

Federal law (Sec. 504 and the ADA) state that a disability is “a physical or mental condition that *substantially limits* the performance of one or more major life activities.”
Sec. 504, the ADA, ADA-AA and College Students

Substantially limited but otherwise qualified.
Otherwise Qualified

• Students must meet same entrance requirements as everyone else; no special admissions
  ➢ Pre-admissions inquiries about disability prohibited under Federal law
• No “substantial alteration to the program” or personal assistance required
• “Otherwise” qualified is not a given throughout college
Obligation of the Postsecondary Institution

• Cannot discriminate, either for or against, otherwise qualified students with disabilities
• Physical and programmatic access required
• Must provide “reasonable and appropriate” academic accommodations to “otherwise qualified” students with verified disabilities who make the request
Who Receives Services?

- Those with substantial limitations to *major life activities*.
- List of *major life activities* expanded for ADA-AA; includes, but is not limited to, list that was revised from ADA.
Who Receives Services? (p.2)

• “Mitigating measures” not considered
  ➢ Classroom accommodations, glasses, prosthetics, medications, mobility devices, hearing aids don’t remove the disability
  ➢ People are to be considered in their “natural state”

• Performance of tasks: consider condition, manner, duration compared to non-disabled peers
Who Receives Services? (p. 3)

No registration = no coverage

^8
Burden of Proof

- Student’s responsibility to prove, by providing *appropriate, recent* documentation from *appropriate* clinician:
  - S/he has a disability
  - Disability poses substantial limitation to major life activity or activities
  - Need for accommodation, since existence of disability doesn’t always necessitate accommodations
Why the Need for Recency?

- Maturational changes mean coping skills may have changed
- *Current impairment* must be demonstrated
- “Reasonable and appropriate” accommodations for college student cannot be determined if documentation dates to grade school
- Recent testing may identify comorbid disorders needing treatment or addl. accommodations
Purpose of Academic Accommodations for Students with ADHD

- Remediate
- “Level the playing field”
- NEVER to lower academic standards or provide an unfair advantage over non-disabled peers
Typical Accommodations for Students with ADHD

• Extended time on exams, quizzes, in-class assignments
  ➢ Time to “re-focus”
  ➢ Anxiety decrease

• Reduced-distraction testing
  ➢ No such thing as “distraction free”
  ➢ What it’s not
  ➢ Other distractions
Typical Accommodations (p. 2)

• Note takers
  ➢ Allows listening rather than mechanical dictation
  ➢ Sometimes taking notes may help focus

• “E-text”
  ➢ Multiple sensory channels
  ➢ Can bore others
Are Accommodations Effective?

- Limited research exists re: effectiveness 9
- Other research shows significant grade improvement 10
- Anecdotal effectiveness
- Stopgap measure; not behavioral change
Other Assistance - Coaching

• Purpose is to change behavior, prepare students for future\textsuperscript{11}

• Traditional DSS programs usually do not have the funds, personnel or other resources to provide coaching
Home / School Structure: What Happened??

- No structure as was in home or in high school\textsuperscript{11,12}
- No immediate consequences for behavior
- No nagging
- Many more distractions
BEWARE THE PITFALLS!
TIME MANAGEMENT

• Poor planning

• Anxiety
LACK OF ACADEMIC “SAVVY”

- Rushing to finish
- May be enrolled in too many classes directly impacted by disability
- Poor or no study habits
  - Marathon studying
  - Read, re-read (ADHD has a negative impact on reading performance) \(^{14}\)
A FULL CALENDAR

• Greek activities
• Volunteerism
• Sports
• Clubs
Desire for Anonymity

• A lifetime of labels
• Mistaken beliefs about privacy
“I Don’t Need Help!”

• Perception of need
  ➢ Hazardous to academic health!
  ➢ Little pond vs. big pond
  ➢ Fewer tests mean higher stakes on each one

• Strong foundation vs. digging out of hole
Quality of Treatment

- Poor pre-planning: How will I get my meds??
- Quality of care may differ
- Students not taught to talk about disability
- May run out of meds, forget to call for refill
- Non-compliant with medication
Faculty Perceptions

- Willingness to accommodate varies
  - Type of accommodation
  - Academic department
- Professors unsure about abilities of SWD; want more information
  - Capability of completing degree?
  - Limitation as to choice of major
Faculty Perceptions (p. 2)

• “If they are here, they can’t possibly have a disability”¹⁷
  ➢ Malingerers?
  ➢ “DSS lets everyone have accommodations”

• Others allow too much, thus creating expectations and/or dependency
For More Information

• [http://www.ed.gov/about/offices/list/ocr/transition.html](http://www.ed.gov/about/offices/list/ocr/transition.html) - U.S. Department of Education’s Office of Civil Rights (OCR) publication on transition.

• [www.ahead.org](http://www.ahead.org) – Association on Higher Education and Disability.


• [www.wrightslaw.com](http://www.wrightslaw.com) – Legal information pertaining to disability and education.
For More Information (p. 2)

- [http://life.umt.edu/dss/name/toto](http://life.umt.edu/dss/name/toto) - University of Montana’s *Handbook for Parents of Students with Disabilities*.

ADHD Consortium

• Began in 2008
• Purpose: network and seek ways to better serve the needs of students with ADHD.
• Overall Goal: to OPTIMIZE the educational experience of the students with ADHD
ADHD Consortium

• Primary UA Campus Partners:
  – Student Health Center
  – Department of Health Promotion & Wellness
  – University of Alabama Psychology Clinic
  – Center for Teaching and Learning
  – Office of Disability Services
  – Counseling Center
  – Department of Social Work
  – Department of Education
  – Student Services
  – Student Judiciary

• Discussion Points:
  – Explore ways to improve coordination of services
  – Increase students’ awareness of services available
  – Increase faculty awareness of the nature of ADHD and how they can better serve students having this condition
  – Address initial assessment cost barrier
  – Integration of Health Education
  – Addressing Study Skills, Organizational Skills, other Life Skills, & related issues
ADHD Consortium

• Current Projects
  – Working with Computer-Based Honors program to developing an ADHD website
  – Videos (testimonials) for use with website
    • Study Skills
    • Time Management
    • Resources Used
    • Academic Challenges
    • Extracurricular Involvement
    • Shift to College
    • Stress Management
    • What is ADHD?
    • Medication
Health Promotion & Wellness: Promotion of Campus & Community Resources

• Make students aware of helpful resources on campus and in the community.
  – Campus presentations
  – Paper & electronic communications
  – Student advocates

• Encourage students to seek support from those resources.
Health Promotion & Wellness: Education, Programming, & Mentoring Opportunities

• Peer Mentoring or Professional
  – Time Management
  – Stress Management & Coping Skills
  – Organizational Skills
  – Healthy Relationships
  – Adjustment to College
  – Substance Use & Abuse
  – Peer Influence
THANK YOU!

QUESTIONS