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Treatment of Behavioral Health Disorders in Adolescents: ADHD and Substance Use Disorders

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Behavioral Health Disorders in Adolescents

- Common in adolescents
  - Major Depression
  - Bipolar Disorder
  - Attention Deficit Hyperactivity Disorder
  - Schizophrenia
  - Substance Use Disorders
    - Alcohol
    - Marijuana
    - Prescription Drugs (Opioids)

Attention Deficit Hyperactivity Disorder

- Symptoms include inattention: lack of attention to details, problem staying on task, lack of completion of assignments, problems with organization, loses things, forgetful
- Hyperactivity: fidgets/restless, runs about/climbs where inappropriate, difficult to 'keep up with', talks excessively, blurts out answers, can't wait their turn, often interrupts, uses other people's things without asking
- Several symptoms prior to age 12
- Symptoms in two or more settings (e.g.: home/school)
- Symptoms interfere with/reduce quality of social, academic, or occupational functioning
- At least 6 mos. duration

ADHD: Diagnosis

- Symptoms usually appear early in life, often between the ages of 3 and 6
- Parents may first notice that their child loses interest in things sooner than other children, or seems constantly "unfocused" or "out of control.
- Teachers may notice symptoms first, when a child has trouble following rules, or frequently "spaces out" in the classroom or on the playground.
- Rule out
  - medical problems
  - depression
  - anxiety
  - learning disabilities
  - hearing deficits
  - family stressors
- Record review, collateral information (school, home, activities)
- How much of the time does the child exhibit these behaviors? Are behaviors impacting quality of child's life?

ADHD: Causes

- Genetics
- Environmental factors (smoking, alcohol use in pregnancy)
- Other possible etiologies:
  - brain injuries
  - nutrition
  - social environment

ADHD: Treatment

- Stimulants: methylphenidate (studies show safe in ages 3 and older) and amphetamines
  - these medications activate brain circuits that support attention and focused behavior, thus reducing hyperactivity
- non-stimulant medications: atomoxetine, guanfacine, and clonidine
- ADHD medications reduce hyperactivity and impulsivity and improve their ability to focus, work, and learn.

What are the side effects of stimulant medications?

- Most common:
- decreased appetite
- sleep problems
- anxiety
- Irritability
- mild stomachaches
- Headaches
- Monitor for higher heart rates with methylphenidate treatment; this continues with long term treatment; may have cardiovascular implications (found in Multimodal Treatment Study of Children with ADHD)
- Rare: psychosis
- Risk of addiction
- Atomoxetine: suicidal thoughts
- Side effect usually respond to lowering dose

Psychotherapy

- Behavioral therapy aims to help a child change his or her behavior
- E.g.: practical assistance, such as help organizing tasks or completing schoolwork, or working through emotionally difficult events.
- Teaching skills to monitor own behavior
- Learning to give oneself praise or rewards for acting in a desired way, such as controlling anger or thinking before acting
- Parents and teachers can give positive or negative feedback for certain behaviors.
- Use of structure: clear rules, chore lists, and other structured routines can help a child control his or her behavior.

Surge in Diagnosis: Why?

- Prevalence (DSM 5) 5% of children/2.5% of adults
- Prevalence: (CDC): 11% of children; 1 in 5 high school aged boys diagnosed
- An increase of 5% per year since 2003 (7.8%)

Surge in Diagnosis: Why?

- Heavy marketing by pharma
  - Stimulant makers (Adderall, Focalin, Concerta, Vyvanse) have been cited by FDA for false/misleading advertising
- Greater diagnosis in adults as people become more aware of the disorder
- Schools under pressure to produce higher test scores associated with increases in ADHD diagnoses?

Risk of Misuse/Abuse/Addiction

- Improve concentration/focus, wakefulness, and in some, euphoria
- Positive reinforcing effects come with a risk for misuse
- For those with ADHD, use of stimulant medications does not increase risk of developing a substance use disorder

Substance Use Disorders in Adolescence

- Needs to be identified and treated as soon as possible
  - Effect of drug use on developing brain
  - Risk of development of substance use disorders in adulthood greatest in those who started in adolescence
  - Intervention for substance abuse is important to try to avoid development of addiction
  - Routine medical visits or ED visits related to trauma represent an opportunity to screen
  - Adolescents generally do not think they need treatment; research shows that mandated or involuntary treatment can be effective

Substance Use Disorders in Adolescence

- Treatment should be individualized.
- Address more than substance use: other medical/psychiatric problems, school, social relationships, family issues, housing, transportation
- Special attention should be paid to presence of mental health issues such as depression, trauma, and other mental disorders. If present, integrated care is best.
- Family and community (school counselors, peers, mentors) are important to treatment
- Behavioral therapies can be effective by increasing motivation to change and enhancing coping skills (motivational enhancement therapy, relapse prevention therapy, incentives).
- Violence or child abuse should be identified and addressed.
- Monitor for drug/alcohol use in treatment as this can result in relapse and potentially serious consequences.
- Length of treatment important: studies show 3 mos or longer has best outcomes and continuity afterward with drug use monitoring, follow up visits and linking family to other needed services most effective

Substance Use Disorders in Adolescence

- Treatment of sexually transmitted diseases
- Counseling/Screening for HIV
- Counseling/Screening for viral hepatitis (with vaccination for HAV and HBV if needed)
- Important to undertake because drug/alcohol abuse increase risk for such diseases

Evidence Based Approaches to Treating Adolescent Substance Use Disorders

- No FDA approved substance abuse pharmacotherapies have been approved for use in children.
- Buprenorphine, an opioid partial agonist used to treat addiction to prescription pain medications and heroin can be used in those 16 and older
- Methadone maintenance can be used in those 16 and older with 2 documented treatment failures, parental permission and within special methadone programs that treat 16-18 year olds; there are few such programs available
- Other medications are not FDA approved for children, but may be used 'off-label' in severe/relapsing cases where benefit is judged to outweigh any risks and with close supervision

Pharmacotherapies

- Opioid use disorders (severe): methadone, buprenorphine: opioid therapies that produce physical dependence; reduce craving; prevent withdrawal
- Naltrexone: mu opioid antagonist; blocks effects of opioids; tablet or injectable available
- Alcohol: Naltrexone: reduces craving, may help to prevent relapse;
- Acamprosate: may reduce craving/prevent relapse; 2 pills/3 times a day
- Disulfiram/Antabuse: produces noxious reaction if alcohol is used while taking the medication; not used in those with impulse control issues

Pharmacotherapies

- Tobacco use disorder (severe):
- Nicotine replacement (gum/patch/lozenges/nasal spray
- Varenicline: nicotine partial agonist; reduces craving
- Bupropion: first approved as an antidepressant and found to help with reductions in smoking

Behavioral Approaches to Substance Use Disorders in Adolescents

- Group Therapy: requires experienced therapists who can guide discussions in positive directions and direct conversation away from discussion that glorifies drug/alcohol use
- Cognitive Behavioral Therapy: teaching participants how to anticipate problems and develop effective coping strategies; monitor feelings/thoughts and recognize distorted thinking; practices substance refusal, anger management
- Adolescent Community Reinforcement Approach: replaces activities associated with drug/alcohol use with healthier choices: family, social, vocational, educational; CRA procedures address problem solving, coping skills, communication skills

Behavioral Approaches to Substance Use Disorders in Adolescents

- Contingency Management: immediate reinforcements for positive behavior; e.g.: prizes or cash vouchers (for movie tickets, food items, personal goods) for participation in treatment, substance-free urine specimens
- Motivational Enhancement Therapy: counseling approach that helps adolescents resolve ambivalence about engaging in treatment and stopping drug use; therapist assesses motivation and tries to assist the patient in making the assessment/choice of treatment/not using drugs in a non-confrontational manner; not used as a stand alone treatment with adolescents, but in combination with other treatment types.
- Twelve Step Facilitation: therapy designed to increase the likelihood that an adolescent will participate in 12 Step program; emphasis is on idea that life has become unmanageable, that abstinence is needed and that willpower alone is not enough; AA, NA, CA

Family-Based Approaches

- Family is important to the treatment of adolescents; most will be living with at least one parent who will have influence on the life of the adolescent
- Family based approaches address: communication, conflict, co-occurring mental health issues or learning disabilities, problems with school/work, peer issues
- Research shows family based approaches are highly efficacious; in some cases superior to individual or group therapy

Family-Based Approaches

- Brief Strategic Family Therapy: 12-16 sessions; observation of family interactions in group with the premise that one member's problem behaviors stem from family interactions; therapist assists in solutions to changing negative family interactions
- Family Behavior Therapy: Adolescent and at least one parent participate in treatment planning and choose specific interventions from a menu of evidence-based options; behavioral goals are set for preventing substance use and preventing risk behaviors; substance using parents are given behavior goals. Goals are reviewed at each session and rewards provided by significant others based on reaching goals.

Recovery Support Services

- Assertive Continuing Care: a continuation of the Community Reinforcement Approach; continues to use positive and negative reinforcement to shape behaviors, training in problem solving skills and communication skills with a case management approach; goal is to help adolescents and their caregivers to acquire the skills to participate in positive activities
- Mutual Help groups: Participants meet in a group with others in recovery at least weekly where they can get support for continued sobriety and spiritual renewal.
- Peer Recovery Support Services: Links adolescents with peers with lived experience who can provide mentorship, coaching, assistance with getting into 12 Step groups, alternative social support networks and drug/alcohol free social options
- Recovery High Schools: Alternative school programs within the public school system designed for adolescents with drug/alcohol problems; the schools are physically or through scheduling kept separate from the regular high school environment. Provides an opportunity for students newly in recovery to build drug/alcohol peer groups and supports ongoing participation in treatment for drug/alcohol/mental health issues

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