PSYCHOTROPIC MEDICATIONS 201:
A DEEPER DIVE INTO CHILD AND ADOLESCENT PSYCHOPHARMOCOLOGY FOR FAMILIES AND PROFESSIONALS INVOLVED IN THE CHILD WELFARE SYSTEM
DIFFICULT ISSUES

Children in the child welfare system are prescribed psychotropic medications at rates up to three to four times higher than rates for other Medicaid-insured youth.
ABOUT KRISTOPHER KALIEBE, MD

- Grew up in Tampa
- Board Certified in Psychiatry, Forensic Psychiatry and Child and Adolescent Psychiatry
- Associate Professor of Psychiatry at the University of South Florida
- Clinical experience has been in Federally Qualified Health Centers (public community clinics) and Juvenile Corrections
ABOUT CATAROLYN M. GLENN, MA

- Born and raised in Tampa
- Education: Florida State University & Argosy University
- 11 years of Child Welfare experience (Case Manager, FDS, Licensing, Child Welfare Trainer)
- 6 years as a Marriage & Family Therapist providing counseling services to children & families in the Child Welfare system
- Currently the Licensing and Development Facilitator within Florida’s Center for Child Welfare at the University of South Florida
OBJECTIVES

▪ Review advances in terminology and nomenclature regarding psychotropic medications

▪ Review selected best practice for the most common medications used for ADHD, Autism, disruptive behaviors, mood and anxiety disorders.

▪ Identify strategies for augmentation of medications with nutritional approaches
OPENING QUESTIONS

1. What are your experiences with psychotropic medication within the dependency care system?

2. What are your successes and/or frustrations?

3. What would you like to learn?
**DIAGNOSIS**—THE IDENTIFICATION OF THE NATURE OF AN ILLNESS OR OTHER PROBLEM BY EXAMINATION OF THE SYMPTOMS. OXFORD LANGUAGES

Questions arise:

1. When is a medical name important to clarify a problem?
2. When can it be counterproductive to use a medical illness approach for the emotional, cognitive and behavioral challenges of children?
3. In the dependency care system, do the symptoms reveal "the nature of an illness"?
DIAGNOSIS-THE IDENTIFICATION OF THE NATURE OF AN ILLNESS OR OTHER PROBLEM BY EXAMINATION OF THE SYMPTOMS. OXFORD LANGUAGES

Experts are moving away from diagnosis-based practice toward ecological / systems based approaches.

See NIMH – Research Domain Criteria

Brain science has generally moved beyond the DSM V naming system, yet has not yet provided a better language to discuss these problems.

Despite this – I will use the common names of “disorders” as framed in the DSM V

While this is not ideal, it’s the best we can do currently
PSYCHOTROPIC MEDICATION

CATEGORIES
OLD DRUG CLASSIFICATIONS

A. Antipsychotics
B. Antidepressants
C. Mood Stabilizer
D. ADHD medication (stimulants)
E. Non-stimulant ADHD medication
F. Anti-dementia medications
G. Sedatives
BIPOLAR DISORDER

- Antipsychotics:
  - Latuda
  - Risperdal
  - Zyprexa
  - Abilify

- Mood Stabilizers Anticonvulsants:
  - Depakote
  - Carbamazepine
  - Trileptal
  - Lamictal

- Minerals: Lithium
NEUROSCIENCE-BASED NOMENCLATURE (NBN)

See: NBN official app- aims to bring the clinician a state-of-the-art nomenclature system regarding the use of psychotropic drugs in children and adolescents.

“The current pharmacological nomenclature does not reflect contemporary knowledge nor does it appropriately inform the clinician of neuroscience-based prescribing. The nomenclature is confusing to patients as well, for instance when an antidepressant is prescribed for anxiety, or a second-generation antipsychotic to a depressed patient.”
NEUROSCIENCE-BASED NOMENCLATURE
(FORMERLY ANTIDEPRESSANTS)

A. Serotonin Reuptake Inhibitors (Sertraline, Fluoxetine, Escitalopram)
B. Serotonin and Norepinephrine Reuptake Inhibitors (Effexor)
C. Serotonin modulation (trazodone, trintillix)
D. Norepinephrine Reuptake Inhibitor (nortryptaline)
E. Norepinephrine and dopamine modulation (Bupropion)
F. Serotonin and Norepinephrine modulation (Mirtazapine)
NEUROSCIENCE-BASED NOMENCLATURE
(FORMERLY MOOD STABILIZERS)

▪ Lamictal: lamotrigine, glutamate channel blocker.

▪ Valproic acid (Depakote)- glutamate modulator, with unclear mode of action, causes inositol depletion and decreases brain cyclic AMP

▪ topiramate (Topamax), modulates GABA and glutamate

▪ Lithium: effects all brain regions, effects multiple neurotransmitters and inter-cellular pathways
NEUROSCIENCE-BASED NOMENCLATURE
FORMERLY ADHD MEDICATIONS

A. Amphetamine - Dopamine and Norepinephrine modulator (Release)
B. Methylphenidate - Dopamine and Norepinephrine (Reuptake blocker)
C. Norepinephrine reuptake inhibitor (atomoxetine)
D. Norepinephrine (Alpha 2 receptor) agonist (clodidine and guanfacine)
E. Caffeine - adenosine receptors antagonist, inhibits phosphodiesterase
NEUROSCIENCE-BASED NOMENCLATURE
FORMERLY ANTI PSYCHOTIC

A. Dopamine antagonists (haloperidol)
B. Dopamine and Serotonin antagonist (olanzapine, risperidone)
C. Dopamine and Serotonin partial agonist (aripiprazole)
D. Dopamine and serotonin and Norepinephrine Reuptake Modulator (quetiapine)
NON-DRUG CHEMICALS WITH BRAIN EFFECTS

A. Nutritional Fats - Omega 3 Fatty Acid, Omega 6 Fatty acids, etc
B. Vitamins – B6, B12, C, E, etc
C. Hormones – Vitamin D, melatonin, thyroid and sex hormone
D. Hormone Disrupters – Bisphenol A, Phthalates, etc
E. Minerals – Magnesium, Zinc, Copper, Lithium
F. Artificial Colors - Yellow 5, Yellow 6, and Red 40
G. Preservatives
H. Heavy Metals – Lead, mercury, etc
I. Artificial Sweeteners
DISRUPTIVE MOOD DYSREGULATION DISORDER

- Disruptive Mood Dysregulation Disorder (DMDD), new in DSM V – can only be given to a child between 6-18 yrs.
- Children may have ADHD or Depression in addition to the DMDD diagnoses.
- The DMDD diagnosis was added in part to decrease the number of children diagnosed with bipolar disorder.
DISRUPTIVE MOOD DYSREGULATION DISORDER

- ADHD medications
- Antidepressant medications
- Bipolar Disorder Medications

Recommended to try the ADHD medication and/or antidepressant before the Bipolar Disorder medication.
AUTISM AND SERIOUS BEHAVIOR PROBLEMS

- The trials of medicines for Autism Spectrum Disorder inform treatment of children with other neurodevelopmental disorders (such as ADHD, Fetal Alcohol Syndrome, genetic or chromosomal disorders, affective disorders as a result of trauma.)

The approach with mild patients (formerly Aspergers) is very different than with severe autism.
AUTISM STUDIES

Risperidone has FDA approval in children as young as 5 years of age for irritability associated with autistic disorder.

- Omega-3 FA and 8 psychotropic meds each have 1 Randomized Controlled Trial showing symptom improvement.

- Medications used with a high level of evidence to target specific behaviors:
  - Aggression/irritability — Risperdal, Aripiprazole, Topiramate
  - Hyperactivity/inattention — Methylphenidate, Risperdal, Aripiprazole, Atomoxetine
  - Stereotypy/repetitive behaviors — Risperdal, Aripiprazole, Fluoxetine
ANXIETY

- 4-7% of children (Cochran review 2010, #6)
- Most children who meet criteria for one anxiety disorder have multiple: The "number needed to treat" was approximately 4
- The majority of adult anxiety disorders begin in childhood and are stable and often chronic
- Meta-analysis (Ipser): response rate to medication 58%, response rate to placebo 32%
- Evidence base for SRI is good.
POST TRAUMATIC STRESS DISORDER “PTSD”

- There is no clear evidence for the use of meds in PTSD in children and adolescents (medicines are not better than placebo).
- Psychotherapy is the treatment of choice.
- What to do when therapy is refused, doesn’t help or is unavailable?
- Post Traumatic growth: personal strength; social relationships; appreciation for life; identification of new possibilities; and changes to spirituality
POST TRAUMATIC STRESS DISORDER “PTSD”

- Prazosin 1-8mg in children and adolescent.
- Propranolol as an adjunct to therapy
- Micronutrient Combinations have interesting evidence
- Other medications to control symptoms when needed
DEPRESSION

- FDA Approved: only Prozac (8 and up) and Lexapro (12 and up)
- A recent review found only Prozac effective
- Medications for depression in BOTH adults and children generally slightly better than placebo
- It is best to use anti-depressants only for moderate / severe depression (but in clinical practice are frequently used for mild depression)
PSYCHOTROPIC MEDICATION

FINDING INFORMATION
MODERN OVERCONSUMPTION DILEMMAS

- Highly palatable food (sugar)
- Video Games
- Social Media
- Television
- Substance abuse

 Marcus Aurelius: If we cannot resist pleasures, we will end up playing the role of slave
PARENT OR LEGAL GUARDIAN INVOLVEMENT

▪ THE CHILD WELFARE PROFESSIONAL SHOULD FACILITATE THE ATTENDANCE OF THE CHILD’S PARENT (WHERE PARENTAL RIGHTS ARE INTACT)

▪ THE CHILD’S PARENT OR LEGAL GUARDIAN SHOULD PROVIDE EXPRESSED AND INFORMED CONSENT

▪ THE CHILD WELFARE PROFESSIONAL SHOULD ASSIST WITH OBTAINING CONSENT VIA:
  ✓ Attempts to invite the parent or legal guardian to the appointment
  ✓ Facilitate transportation (if needed)
  ✓ Facilitate telephone or tele-medicine participation
  ✓ If the parent is unable to attend the Child Welfare Professional should
    ➢ Attempt to contact the parent or legal guardian & Provide how and when to contact the physician/designee
    ➢ Provide the medical report (which includes physician contact info) to the parent or legal guardian

▪ ONCE AUTHORIZED BY THE COURT, THE CHILD WELFARE PROFESSIONAL MUST CONTINUE TO TRY TO INVOLVE AND FACILITATE COMMUNICATION WITH THE PARENT OR GUARDIAN AND PHYSICIAN SO THAT PARENT/GUARDIAN HAS THE OPPORTUNITY TO AUTHORIZE THE PROVISION OF ANY NEW MEDICATIONS OR DOSAGES

Source 65C35.003
CAREGIVER INVOLVEMENT

- ATTEND MEDICAL APPOINTMENTS
- EXPRESS CONCERNS REGARDING PRESCRIBING PSYCHOTROPIC MEDICATION TO CHILDREN
- THE CHILD WELFARE PROFESSIONAL SHALL BE PROVIDE & REVIEW THE MEDICAL REPORT WITH THE CAREGIVERS TO ENSURE THEIR UNDERSTANDING OF THE REPORT
- MONITOR THE CHILD AND REPORT TO THE PRESCRIBING

Source FAC 65C-35.004
CHILD INVOLVEMENT

A. The medication
B. The reason
C. signs or symptoms
D. Alternative treatment options
E. The method of administering
F. nature and purpose of treatment
G. Side-effects, risks and contraindications
H. Drug-interactions
I. Side-effects of stopping the medication
J. How treatment will be monitored
K. The plan to reduce and/or eliminate use of medication
CHILD ALREADY ON MEDICATION

WHAT SHOULD CAREGIVERS DO?
THE MOST IMPORTANT POINT TO REMEMBER IS COMMUNICATION

You should receive upon placement:

- Information about the child
- Their diagnosis or condition
- The name of the medication, dosage and any side effects or risks
- Instructions from the person bringing the child regarding how to give the medication (with or without food, in the morning or night, and frequency)
- Details about the prescribing physician, the pharmacy, and any upcoming appointments should also be provided
- Have parental rights been terminated? Need 5339 form for judicial consent
TAking A Child into Custody who is Taking Psychotropic Medication

- child protective investigator (CPI) must ascertain whether the child is taking psychotropic medications.

- If so, determine
  - the purpose of the medication
  - the name and phone number of the prescribing physician
  - the dosage
  - instructions regarding administration (e.g., timing, whether to administer with food)
  - other relevant information

Source 65C-35.006
THE CHILD WELFARE PROFESSIONAL RESPONSIBILITIES

▪ Name
▪ Purpose
▪ Contact
▪ Pharmacy
▪ Prescription

▪ Drug & dosage
▪ Time, frequency & method
▪ Side effects & risks
▪ Specific instructions
COMMON NUTRITIONAL SUPPLEMENTS

Omega 3 Fatty Acids - 1000 to 2000mg daily

Minerals
A. Magnesium (often studied with B6) – Glycinate or Citrate up to 400mg daily in teen
B. Zinc (especially in combination) 25-50mg
C. Iron (when low ferritin)
D. Nutritional Lithium 1-50mg daily (normal dietary consumption 1-3mg)

Vitamins
B6, B12, folate,

vitamin D (a hormone)

MULTIPLE VITAMIN and MICRONUTRIENT FORMULAs
COMMON NUTRITIONAL SUPPLEMENTS

A. Inositol (for anxiety)
B. SAMe (for Depression)
C. n acetylcysteine (skin picking, trichotillomania)
D. Amino acids – neurotransmitter precursors
HERBAL SUPPLEMENTS

Pine bark extract - procyanidolic oligomers (OPC) - OPC are often designated as proanthocyanidins, procyanidins, or condensed tannins

Ginkgo Biloba

Ginseng

Green Tea and Green Tea extract / L theanine
NOW THAT THE CHILD IS ON MEDICATION...

- Biosphere
- Society – Nation
- Culture-Subculture
- Community
- Family
- Two –Person

Person (experience and behavior)

- Nervous System
- Organs/Organs Systems
- Tissues
- Cells
- Organelles
- Molecules
- Atoms
- Subatomic Particles
IATROGENICS:
SHORT AND LONG-TERM “SIDE” EFFECTS

Genomics and epigenetics research shows environmental effects on gene expression can last a lifetime and even be multi-generational (effect the grandchildren!)

Are we trading a small measurable short-term gain for an unknown and possibly more severe downfield risk?

Examples: OXYTOCIN and Vols -

Any number of medication subsequently pulled from the market such as Vioxx
IATROGENICS: SHORT AND LONG-TERM “SIDE” EFFECTS

We don’t have much science about these effects of medications:

- Short to medium term (usual 3-6 months) effects are usually the only thing monitored in controlled studies.
- Medication combinations haven’t been studied together.
- Risks (and benefits) might be exponential with multiple medications.
- Negative effects can be psychological and social - rather than physical.
With abrupt cessation, can there be a rebound effect?

- For most psychiatric medications, patients should not take weekends off, short “drug holidays”, but should slowly taper off if they are reducing.

- If patients take medications erratically or abruptly stop medications this can INDUCE “rebound” symptoms! Patients who experience rebound get worse and appear like they “need” the medication.

- Think withdrawal from substances of abuse as the most well know examples – the opposite effect.
BEYOND DRUG THERAPY

- We live in the most heavily medicated society in human history.

- We reside in a culture which over-believes in the effectiveness of medication, including for the emotional, learning and behavioral problems of children.

- Yet circumstances exist where medication is helpful, and even when it isn’t abrupt cessation of medications can cause significant harms.
BEYOND DRUG THERAPY

▪ **Stop the harms**: We are social creatures and children are injured by neglectful and hostile social environments.

▪ Professional counselling of many types can help.

▪ Stop other harms: toxic physical environments such as sensory overload through noise and light pollution (even voluntary), nutrient poor hyper-caloric diets, lack of sleep, lack of restorative and meditative practice, lack of physical activity, lack of nature exposure and outside leisure time.
NURTURING ENVIRONMENTS

- Traumatized children need engaged supportive caretakers and an accepting new tribe.

- We are social beings: children need both a family and peer group.

- Therapists can provide space for children to have a caring adult listen, guidance regarding self regulation skills and model of appropriate adult behaviors.

- Many foster children, especially boys have difficulty verbalizing and are too angry and aroused. This interferes with therapy. We need to find another way for them.
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RULE 1: GET UP AND MOVE!

- Sedentary Culture normalizes inactivity
- Traumatized children are often over-aroused
- Great for learning
- Play is critical
- Movement is part of self-regulation
RULE 2: EAT FOOD, NOT FACTORY MADE FOOD-LIKE PRODUCTS

- Science is impressive
- Whole foods 1st
- Supplements if needed
RULE 3: HONORING SILENCE

- **SILENCE IS GOLDEN!**
- **Electronics off** unless there is a good reason
- Is there a meditative process? Prayer? Any calming rituals?
- Has positive self-regulation been modeled?
- Does the child practice even one calming coping skill?
- Is there time immersed in nature?
ELECTRONICS AND SLEEP RECOMMENDATIONS

Desist  Electronics off 1 hour before bedtime

Dim       Lowest light and less blue in evening

Dampen  Limit arousing content
TRAUMA RECOVERY

*The Body Keeps the Score* – Bessel Van Der Kolk, MD

De-emphasizes medication and talking therapies

- Body based treatments
- Music and drama
- Group activities
SOURCES

- On food additives and other harmful ingredients

- https://cspinet.org/eating-healthy/ingredients-concern