

2022 EVERGREEN YOUTH AND FAMILY SERVICES CONFERENCE

**Practical Information and Interventions for
Pediatric ADHD**

Jennifer Pirkl, MSW, LICSW

Integrated Health Therapist-Bemidji Region

jennifer.pirkl@sanfordhealth.org

- ▶ The purpose of the event is to provide education on best practices for ADHD; focusing on clinical areas typically encountered in the primary care settings. This overview will optimize interdisciplinary teams in the diagnosis and treatment of ADHD.

PURPOSE

- ▶ Requirements for successful completion of this activity
- ▶ Attendance at the entire session

DISCLOSURE



- ▶ The planners of this activity have no conflict of interest and nothing to disclose.

DISCLOSURE



- ▶ Have working knowledge to discuss ADHD diagnosis
- ▶ Learn screening methods used when patients are referred for ADHD concerns
- ▶ Learn what are the evidenced based interventions for working with ADHD patient concerns

LEARNING OBJECTIVES

“ THE HARDEST THING ABOUT ADHD IS THAT IT’S
“INVISIBLE” TO OUTSIDERS. PEOPLE JUST ASSUME
THAT WE ARE NOT BEING GOOD PARENTS AND
THAT OUR CHILD IS A BRAT, WHEN THEY DON’T
HAVE AN IDEA HOW EXHAUSTED WE TRULY ARE ”

-S.C.



ADHD is not about
knowing what to do,
but about doing what
one knows.

Russell Barkley

WWW.STOREMYPIC.COM

**ask me about my
attention deficit
disorder or pie
or my cat. a dog.
i have a bike.
do you like tv?
i saw a rock. hi.**



I came. I saw. I
forgot what I was
doing, retraced my
steps, got distracted
on my way back,
have no idea what's
going on and now I
have to pee.

Everybody is a genius.



But if you judge a fish by its
ability to climb a tree, it will
live its whole life believing
that it is stupid.

Albert Einstein

HISTORY OF ADHD



HISTORY OF ATTENTION & HYPERACTIVITY CONCERNS IN MEDICAL LITERATURE

How Long has ADHD been around in the medical community?

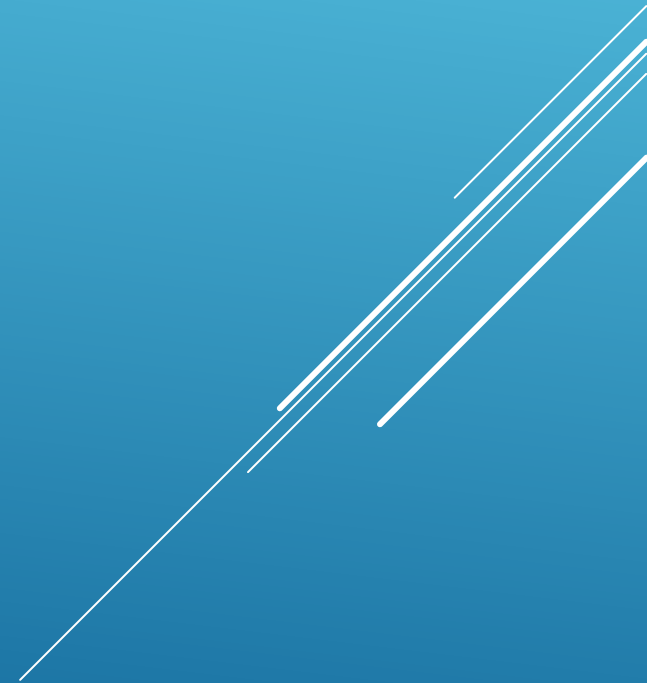
A-1960's

B-1980's

C-1900's

D-1800's

E-Since time began



AN INQUIRY
INTO THE
NATURE AND ORIGIN
OF
MENTAL DERANGEMENT.
COMPREHENDING
A CONCISE SYSTEM
OF THE
PHYSIOLOGY AND PATHOLOGY
OF THE
HUMAN MIND.
AND A
HISTORY OF THE PASSIONS AND THEIR EFFECTS.

By **ALEXANDER CRICHTON, M.D.**
PHYSICIAN TO THE WESTMINSTER HOSPITAL, AND PUBLIC
LECTURER ON THE THEORY AND PRACTICE OF
PHYSIC, AND ON CHEMISTRY.

VOLUME I.

LONDON:
PRINTED FOR T. CADELL, JUNIOR, AND W. DAVIES,
IN THE STRAND.

1798.

LONGER THAN MOST
THINK...

Alexander Crichton, MD (1798)

John Haslan, MD (1809)

Benjamin Rush, MD (1812)

HISTORY-

„Another boy, aged six years, with marked moral defect was unable to keep his attention even to a game for more than a very short time, and, as might be expected, the failure of attention was very noticeable at school, with the result that in some cases the child was backward in school attainments, although in manner and ordinary conversation he appeared as bright and intelligent as any child could be.”

Still, Goulstonian Lectures, Lecture III.

George Fredric Still, Royal College of Physicians, London, 1902

THE 1900'S-

PSYCHOPATHOLOGY and EDUCATION of the BRAIN-INJURED CHILD

By **ALFRED A. STRAUSS**

*Psycho-Educational Consultant, Formosa, Illinois;
President, Ohio Schools for Brain Injured Children,
Canton, Wisconsin.*

and **LAURA E. LEHTINEN**

*Psycho-Educational Consultant, Formosa, Illinois;
Educational Director, Ohio Schools for Brain-
injured Children, Canton, Wisconsin.*

▶ Scientific Research in the 1990's

1. Genetic
2. Neurological
3. Environmental

ADHD TODAY-

A decorative graphic consisting of several parallel white lines of varying lengths, slanted upwards from left to right, located in the bottom right corner of the slide.

- ▶ Globally 7.2% of under age 18 population
- ▶ Males twice the rates of diagnosis over females
- ▶ Historically non-Hispanic whites highest rates of diagnosis
- ▶ More recently non-Hispanic blacks highest rates of diagnosis
- ▶ Prevalence of ADHD vs Identification of ADHD?

ADHD DATA & STATISTICS

Overall prevalence and by age group (percent)

Year	Overall	Ages 4-11	Ages 12-17
2015-2016	10.2	7.7	13.5
2013-2014	9.4	7.9	11.3
2011-2012	9.6	7.7	12.0
2009-2010	9.0	6.9	11.9
2007-2008	8.1	6.1	10.8
2005-2006	7.5	6.0	9.3
2003-2004	7.3	5.8	9.3
2001-2002	7.2	5.9	8.9
1999-2000	6.5	5.3	8.2
1997-1998	6.1	5.3	7.2

NATIONAL HEALTH INTERVIEW SURVEY (NHIS)

Prevalence by gender (percent)

Year	Boys	Girls
2015-2016	14.0	6.3
2013-2014	12.8	5.8
2011-2012	13.6	5.4
2009-2010	12.2	5.7
2007-2008	11.3	4.8
2005-2006	10.6	4.2
2003-2004	10.2	4.3
2001-2002	10.3	4.0
1999-2000	9.4	3.4
1997-1998	9.0	3.1

ADHD-BY NUMBERS

Prevalence by race/ethnicity (percent)

Year	Hispanic	Non-Hispanic white	Non-Hispanic black	Other
2015-2016	6.1	12.0	12.8	7.7
2013-2014	6.1	11.4	8.8	6.9
2011-2012	6.1	11.6	9.4	6.9
2009-2010	4.8	10.6	11.1	6.2
2007-2008	4.4	9.6	8.5	6.0
2005-2006	5.1	8.5	7.5	5.1
2003-2004	4.1	8.6	7.3	5.2
2001-2002	3.8	8.4	7.2	3.7
1999-2000	3.4	7.8	4.8	4.0
1997-1998	3.6	7.2	4.7	3.9

NATIONAL HEALTH INTERVIEW SURVEY (NHIS)

ADHD-BY NUMBERS

- ▶ 2016 National Survey of Children's Health (NSCH) interviewed parents

- ▶ **6.1 million children (9.4 percent) have ever been diagnosed with ADHD. This includes:**

1. About 388,000 young children ages 2-5 (or 2.4 percent in this age group)
2. 2.4 million school-age children ages 6-11 (or 9.6 percent in this age group)
3. 3.3 million adolescents ages 12-17 (or 13.6 percent in this age group)

ADHD-BY NUMBERS

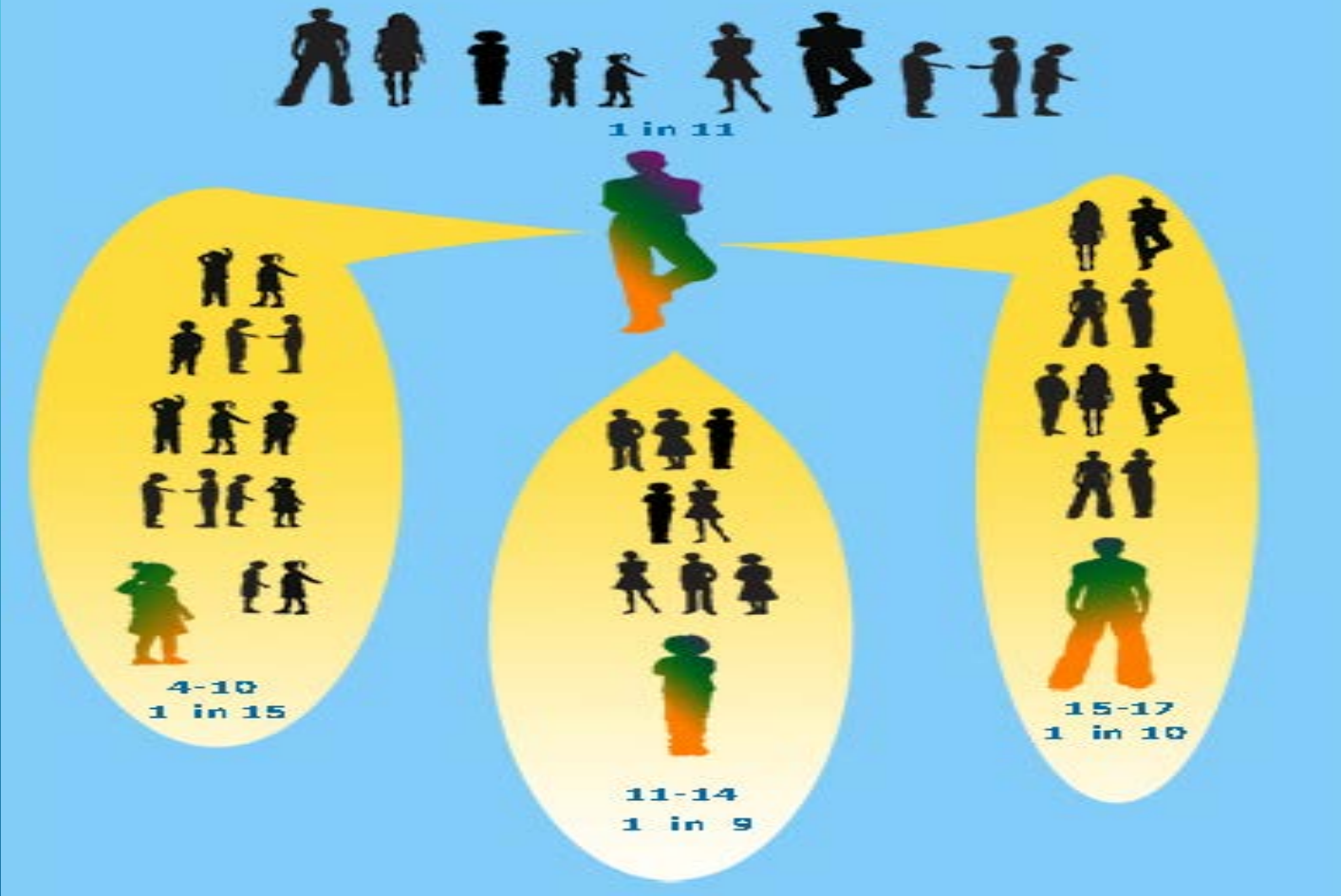
- ▶ 2016 National Survey of Children's Health (NSCH) interviewed parents

- ▶ **Treatment used by children ages 2-7 with a current diagnosis of ADHD:**

1. Two out three were taking medication (62 percent).
2. Less than half received behavioral treatment in the past year (46.7 percent).
3. Nearly one out of three received a combination of medication and behavioral treatment in the past year (31.7 percent).
4. Nearly one out of four had not received any treatment (23 percent).

ADHD-BY NUMBERS

**Children Currently Diagnosed with ADHD
Ages Ranging from 4-17**



NATIONAL SURVEY OF CHILDREN HEALTH (NSCH) 2003-2011

ADHD-BY NUMBERS

DIAGNOSIS OF ADHD




▶ American Academy of Pediatrics (AAP) recommendations:

1. Gather reports
2. Use DSM-5 criteria
3. Rule out other medical conditions
4. Screen for co-existing conditions
5. Refer if co-existing conditions exist

ATTENTION DEFICIT HYPERACTIVITY DISORDER-DIAGNOSIS

- ▶ Inattention:
- ▶ Six or more symptoms of inattention for children up to age 16 years, or five or more for adolescents age 17 years and older and adults; symptoms of inattention
- ▶ have been present for at least 6 months,
- ▶ are inappropriate for developmental level:

ATTENTION DEFICIT HYPERACTIVITY DISORDER-THE DSM 5

- ▶ Hyperactivity and Impulsivity:
 - ▶ Six or more symptoms of hyperactivity-impulsivity for children up to age 16 years, or five or more for adolescents age 17 years and older and adults; symptoms of hyperactivity-impulsivity
 - ▶ have been present for at least 6 months **to an extent that is disruptive and inappropriate for the person's developmental level**
- 
- A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against a blue gradient background.

Based on the types of symptoms, three kinds (presentations) of ADHD can occur:

- **Combined Presentation:** if enough symptoms of both criteria inattention and hyperactivity-impulsivity were present for the past 6 months
- **Predominantly Inattentive Presentation:** if enough symptoms of inattention, but not hyperactivity-impulsivity, were present for the past six months
- **Predominantly Hyperactive-Impulsive Presentation:** if enough symptoms of hyperactivity-impulsivity, but not inattention, were present for the past six months.
- Because symptoms can change over time, the presentation may change over time as well.

In addition, the following conditions must be met:

- Several inattentive or hyperactive-impulsive symptoms were present before age 12 years.
- Several symptoms are present in two or more settings, (such as at home, school or work; with friends or relatives; in other activities).
- There is clear evidence that the symptoms interfere with, or reduce the quality of, social, school, or work functioning.
- The symptoms are not better explained by another mental disorder (such as a mood disorder, anxiety disorder, dissociative disorder, or a personality disorder). The symptoms do not happen only during the course of schizophrenia or another psychotic disorder.

▶ More than 2/3 of individuals with ADHD have at least one co-existing condition.

1. Disruptive Behavior Disorders
2. Mood Disorders
3. Anxiety
4. Tics and Tourette Syndrome
5. Learning Disorders
6. Sleep Disorders
7. Substance Abuse

ADHD-OTHER CONSIDERATIONS




- ▶ Importance of screening for co-existing conditions
- ▶ Interviews and Questionnaires
- ▶ Treatment Planning tailored to child's specific needs

ADHD-OTHER CONSIDERATIONS


INTERVENTIONS FOR ADHD:



INTERVENTIONS: CHILDREN 6 AND UNDER:

- Behavior Therapy
 - Parent Training
 - School Interventions
- 
- A decorative graphic consisting of several parallel white lines of varying lengths and thicknesses, arranged in a diagonal pattern from the bottom right towards the top right of the slide.

INTERVENTIONS: SCHOOL AGED CHILDREN:

- Parent training in behavior management
 - Behavioral interventions in the classroom
 - Peer interventions that focus on behavior
 - Organizational skills training
 - Medications
- 
- A decorative graphic consisting of several parallel white lines of varying lengths and orientations, located in the bottom right corner of the slide.

- ▶ Create routines
- ▶ Get Organized
- ▶ Manage Distractions
- ▶ Limit choices
- ▶ Be clear and specific in communication
- ▶ Help you child plan
- ▶ Use goals and praise or other rewards
- ▶ Discipline effectively(age appropriate)
- ▶ Create positive opportunities
- ▶ Provide and encourage healthy lifestyle

ADHD: INTERVENTIONS-TIPS FOR PARENTS

- Behavioral Classroom Management
- Organizational training
- Special Education Support
 - The Individuals with Disabilities Education Act (IDEA)
 - Section 504 of the Rehabilitation Act of 1973

- ▶ Did you know?
- ▶ Parents report that only about 1 in 3 children with ADHD receive behavioral classroom management.

SCHOOL INTERVENTIONS:

- ▶ **Stimulants** are the best-known and most widely used ADHD medications. Between 70-80% of children with ADHD have fewer ADHD symptoms when taking these fast-acting medications.
- ▶ **Nonstimulants** were approved for the treatment of ADHD in 2003. They do not work as quickly as stimulants, but their effect can last up to 24 hours.

INTERVENTIONS: USE OF MEDICATIONS

ADHD: ALTERNATIVE TREATMENTS

Unproven ADHD Treatments:

Megavitamins and mineral supplements

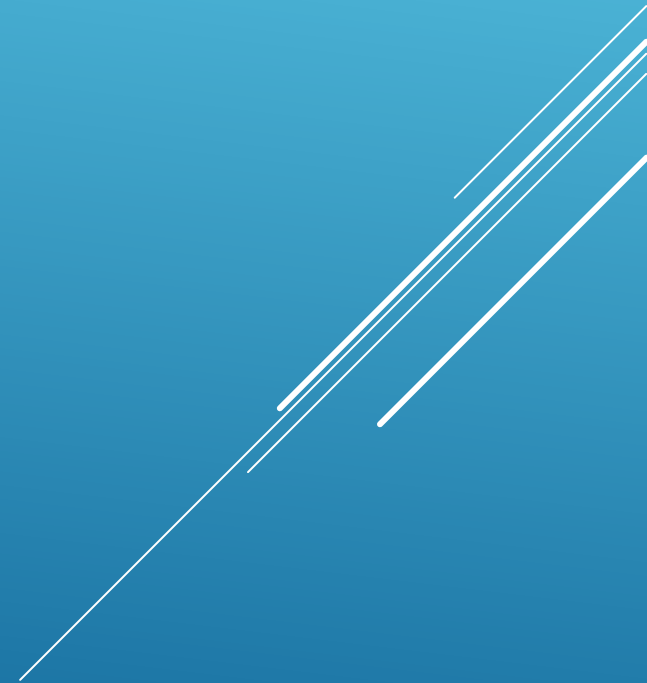
Treatment for candida yeast infection

EEG biofeedback (training to increase brain-wave activity)

Applied kinesiology (realigning bones in the skull)


Reducing sugar consumption

Optometric vision training (asserts that faulty eye movement and sensitivities cause the behavior problems)



ADHD: ALTERNATIVE TREATMENTS

Work with your Primary Care Provider-

1. Nutritional deficiencies need to be discussed
 2. Clinical trials, and scientific evaluation methods only
 3. Emerging research on micro nutrients
 4. Child absorption and dosing must be done under medical guidance
- 
- A decorative graphic consisting of several parallel white lines of varying lengths and thicknesses, arranged in a diagonal pattern from the bottom right towards the top right of the slide.

QUESTIONS?



REFERENCES:

American Academy of Pediatrics:

<https://publications.aap.org/pediatrics/article/128/5/1007/31018/ADHD-Clinical-Practice-Guideline-for-the-Diagnosis?searchresult=1>

<https://publications.aap.org/pediatrics/article/136/6/e1650/33895/The-Individuals-With-Disabilities-Education-Act>

American Medical Association (AMA):

Diagnosis and Treatment of Attention-Deficit/Hyperactivity Disorder in Children and Adolescents, April 1998

Citation: Journal of the American Medical Association 279(14): 1100-1107, 1998

REFERENCES:

Children and Adults with Attention Deficit Hyperactive Disorder

<https://chadd.org/about-adhd/overview/>

THE CALIFORNIA EVIDENCE-BASED CLEARINGHOUSE FOR CHILD WELFARE

Information and Resources for Child Welfare Professionals:

<https://www.cebc4cw.org/topic/parent-training-programs-behavior-problems/>

Center for Disease Control and Prevention (CDC)

State-based Prevalence of ADHD Diagnosis and Treatment:

<https://www.cdc.gov/ncbddd/adhd/data/diagnosis-treatment-data.html>

Centers for Disease Control: <https://www.cdc.gov/ncbddd/adhd/treatment.html>.

Danielson, Melissa et al. (January 2018). Prevalence of Parent-Reported ADHD Diagnosis and Associated Treatment Among U.S. Children and Adolescents, 2016. *Journal of Clinical Child & Adolescent Psychology*.

REFERENCES:

Healthy Children.org-From the American Academy of Pediatrics

<https://www.healthychildren.org/English/health-issues/conditions/adhd/pages/Determining-ADHD-Medication-Treatments.aspx>

Mayo Clinic, Rochester, Minnesota

Utilization and Costs of Medical Care for Children and Adolescents with and without Attention-Deficit/Hyperactivity Disorder, January 2001

Citation: Journal of the American Medical Association 285(1): 60-6, 2001

National Institutes of Health (NIH)

National Institute of Mental Health Multimodal Treatment Study of Children with ADHD, December 1999

Citation: Archives of General Psychiatry 56(12): 1073-86, 1999

Diagnosis and Treatment of Attention-Deficit Hyperactivity Disorder:

Consensus Development Conference Statement, November 1998

Citation: NIH Consensus Statement 16(2): 1-37, 1998

REFERENCES:

Greenblatt, J and Gotlieb, B (2017), Finally Focused: The Breakthrough Natural Treatment Plan for ADHD that Restores Attention, Minimizes Hyperactivity, and Helps Eliminate Drug Side Effects.

Hallowell, E, and Ratey, J (2011) Driver to Distraction: Recognizing and Coping with Attention Deficit Disorder.

Pastor, Patricia N. (August 28, 2015). QuickStats: Percentage of Children and Adolescents Aged 5–17 Years with Diagnosed Attention-Deficit/Hyperactivity Disorder (ADHD), by Race and Hispanic Ethnicity — National Health Interview Survey, United States, 1997–2014, Morbidity and Mortality Weekly Report (MMWR) 64(33):925–925.

Pastor, Patricia N. et al. (2015). Association between diagnosed ADHD and selected characteristics among children aged 4–17 years: United States, 2011–2013. NCHS data brief, no 201. Hyattsville, MD: National Center for Health Statistics.

REFERENCES:

Thomas, Rae et al. (April 2015). Prevalence of Attention-Deficit/Hyperactivity Disorder: A Systematic Review and Meta-analysis. *Pediatrics*, 135(4), pp. e994–e1001.

U.S. Centers for Disease Control and Prevention (2014). Key Findings: Trends in the Parent-Report of Health Care Provider-Diagnosis and Medication Treatment for ADHD: United States, 2003–2011.

US. Census Bureau, Population Division. World Midyear Population by Age and Sex for 2013

Warnke, A, and Riederer, C. (2013). ADHD-Attention Deficit-Hyperactivity Disorder: An illustrated historical overview. <https://www.cpo-media.net?ADHD/History/HTML>

Wolraich, M and Hagen, J (2019). ADHD: What Every Parent Needs to Know. *American Academy of Pediatrics*

Xu, Guifeng et al. (August 2018). Twenty-Year Trends in Diagnosed Attention-Deficit/Hyperactivity Disorder Among US Children and Adolescents, 1997-2016. *JAMA Network Open*. 2018;1(4):e181471.

HELPFUL HANDOUTS IN PRIMARY CARE:

ADHD and Autism Spectrum Disorder:

<https://chadd.org/wp-content/uploads/2019/03/ADHD-and-Autism-Spectrum-Disorder.pdf>

Behavior Therapy:

<https://www.cdc.gov/ncbddd/adhd/documents/adhd-behavior-therapy-healthcare-fact-sheet.pdf>

<https://www.cdc.gov/ncbddd/adhd/documents/adhd-behavior-therapy-overview-all-ages.pdf>

<https://www.cdc.gov/ncbddd/adhd/documents/adhd-behavior-therapy-overview.pdf>

<https://chadd.org/adhd-weekly/12-behavioral-programs-for-managing-adhd/>

Co-existing Disorders:

<https://chadd.org/wp-content/uploads/2018/04/coexisting.pdf>

HELPFUL HANDOUTS IN PRIMARY CARE:

Complementary Interventions:

https://chadd.org/wp-content/uploads/2020/04/Complementary-Interventions-ADHD_QF.pdf

ADHD & Executive Function (Books and Peer Reviewed Journals)

<https://www.browнадhdclinic.com/proof>

IDEA/504 Plans:

https://chadd.org/wp-content/uploads/2018/12/IDEA_vs_504_infographic.pdf

<https://www2.ed.gov/about/offices/list/ocr/docs/dcl-know-rights-201607-504.pdf>

Medications:

<https://chadd.org/wp-content/uploads/2021/09/ADHD-MEDICATIONS-APPROVED-BY-THE-US-FDA-2021.pdf>

Organization help (for parents);

<https://www.kidshealth.org/en/parents/child-organized.html>