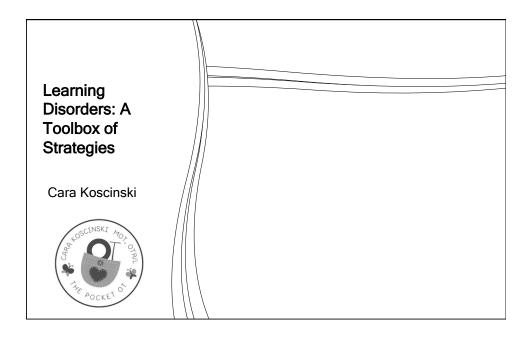
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I LOVE Creating Things & Helping Families!







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Objectives:

- 1) Participants will name types of learning disorders and list symptoms of each.
- 2) Participants will choose accommodations and treatment strategies for children with learning disorders.
- 3) Participants will set functional goals for children with learning disorders in both the home and clinic setting.



What IS a Learning Disability?

- Neurological differences in brain structure and function.
- Range in severity and can affect a person's ability to take in, store, process, and communicate information.
- Still doing much research.

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Potential Causes: 1 Brain Trauma before or during birth 2 Genetic factors 3 Postnatal events 4 Exposure to toxins (c) The Pocket Occupational Therapist, 2017



Statistics US

Statistics in US:

4.6 million people have LD/ADHD

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1/3 were held back a grade at least once

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2/3 feel or reported they are bullied

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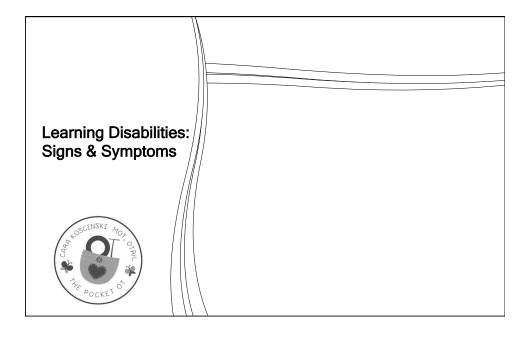
Source, NIH and NCLD in US & Public Health England and Labour Force Survey

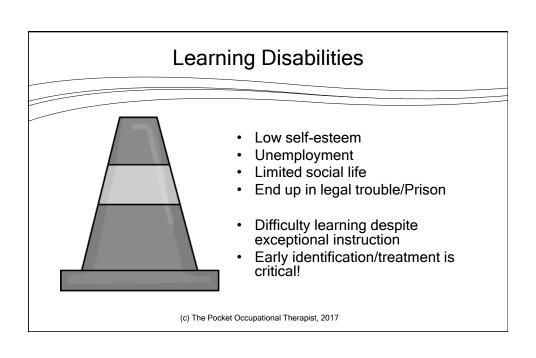
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What IS Learning Disability?

- NOT caused by visual, hearing, movement, mental retardation (now known as intellectual disability), emotional disturbances, cultural factors, or poor instruction/teaching
- REAL and PERMANENT
- Many times diagnosed as adults









Many types of learning disabilities:



Dyslexia:
Specific difficulties in reading. Affects the way the brain processes written and spoken language.
Most prevalent



Dyscalculia:
Difficulties in math,
with sequences,
and money



Dysgraphia: Problems with writing, spelling, grammar. Difficulty with written expression.



Dyspraxia: Problems with motor tasks, hand-eye coordination, sensitivity to touch and textures.

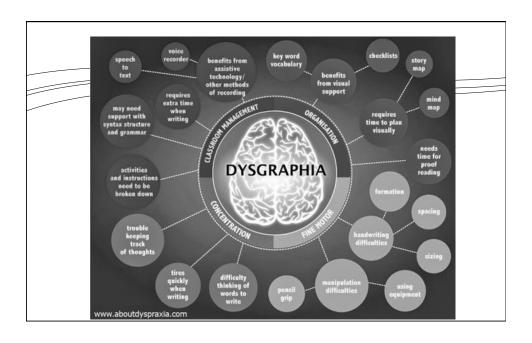
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Illustrations of Dysgraphia

- Mixture of UC and LC letters per line
- · Mixture of print and cursive
- Slant variations
- Inconsistently inconsistent!







Dysgraphia Types

- Dyslexic Dysgraphia:
 - With this disorder, spontaneously written text is illegible, especially when the text is complex. Oral spelling is poor, but drawing and copying of written text are relatively normal. Finger-tapping speed (a measure of fine-motor speed) is normal.



Dysgraphia Types

Motor Dysgraphia:

With this disorder, both spontaneously written and copied text may be illegible, oral spelling is normal, and drawing is usually problematic. Finger-tapping speed is abnormal.

Spatial Dysgraphia:

Individuals with this disorder display illegible writing, whether spontaneously produced or copied. Oral spelling is normal. Finger-tapping speed is normal, but drawing is very problematic.

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Many Types of Learning Disabilities



- <u>Auditory Processing Disorder</u>: weakness in ability to understand and use auditory information.
- Visual Processing Disorder: difficulty understanding and using visual information.
- Non-Verbal Learning Disorders: unique learning and behavioral profiles
- Executive Functioning Disorder: weakness in plan, organize, carry-out, manage time, remember details



Learning Disorders

- Awkward grasp
- Cramped
- Uncomfortable twisting/contorting of body while writing
- Rely on other senses
- Letter formation becomes the GOAL rather than the means to an end.....cannot concentrate on spelling, grammar and other skills for learning.

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Know the Terminology!

- LEARNING DISABILITY= SLD
- A disorder—unrelated to intelligence, motivation, effort, or other known causes of low achievement—that makes a child struggle in certain areas of learning, such as reading, writing or doing math.
- Referred to as Specific Learning Disability



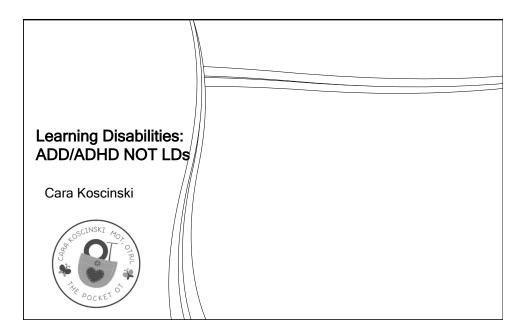
Many types of learning disabilities



Attention Deficit/Hyperactivity Disorder: Difficulty paying attention, distractible, hyperactivity, impulsivity

At least 1/3 of all those with learning disabilities have ADHD/ADD! BUT, can be attributed to neurochemical imbalance so may be treated with pharmacological treatments and behavioral therapies.

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ADD/ADHD

Attention Deficit Hyperactivity Attention Deficit Disorder (ADD): Disorder (ADHD):

Difficulty paying attention, distractible, hyperactivity, impulsivity

Difficulty paying attention

US>

OTHER Health Impaired not 'Specific Learning Disabilities' According to IDEA

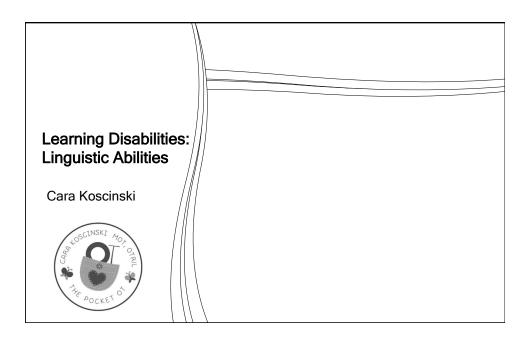
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What IS Executive Function:

- Set of skills to manage tasks we complete every day.
- What we will pay attention to and what we choose to do.
- Manage emotions and thoughts so we can be efficient.
- Regulate behavior when difficulties arise.
- Assist in ability to function with independence.



Two Types of Skills **Thinking Doing** Response Inhibition Planning Organization **Emotional Control** Time Management Sustained Attention Working Memory Task Initiation Metacognition (Self-observation Flexibility and assessment) Looking at self and evaluating how you're doing. Goal-directed activity (not be distracted by competing activities/ interests)





Linguistic Abilities

- Every child is different
- · Academic achievement deficits
 - Have strengths similar to peers but rate of learning is unexpectedly slower
- Fall into these areas:
 - Reading, mathematics, written expression

Linguistic Abilities					
stude	o to 60-90% of nts with LD have ding difficulties	÷	Phonological Awareness=ability to understand that speech flow is broken down into sound units.		Area most associated with academic failure
English readers are more susceptible than readers of other languages due to problems with phonological awareness. (c) The Pocket Occupational Therapist, 2017					



Dyslexia Specific

- Characterized by problems with word decoding which are not age-appropriate
- Fails to recognize and comprehend written words
- · Impairment in ability to read
- Results from difficulties with phonological awareness -lack of understanding rules that govern relationship between letters and sounds

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Oral-Reading Problems

Reading Problems

- Omissions
- Substitution
- Mispronunciation
- Hesitation
- Inversion

Why it Matters

- Meaning is changed
- Non-word is used
- Partial word is substituted
- NOT-self corrected OR corrected by someone else for student



Reading Problems

Common Signs

- Comprehension recalling basic facts
- Recalling sequence
- Recalling main theme
- Tension movements (high-pitched tone, fidgeting)
- Loses place
- · Random movements of head
- Holding material too closely

Common Signs

- Student does not 'guess' or make predictions
- Students disregard punctuation
- Do not understand story line
- Problems sounding out word parts and blends
- Negative attitude toward reading
- Attacking unknown words

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More Accommodations!

- Kinesthetic learning!
- Enlarge print
- · Books on CD
- · PowerPoint or iMovies
- www.eyecanlearn.com
- www.visionandlearning.org

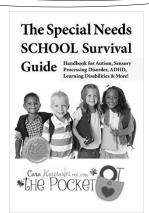




More Accommodations!

- Exaggerate spacing
- Colored overlays/paper
- Manipulatives
- Color columns
- Fidgets
- · Pencil case by subject
- Emphasize key words

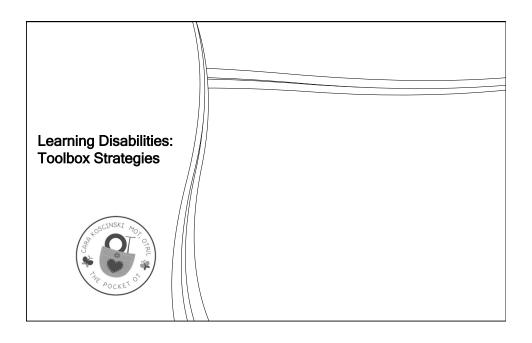
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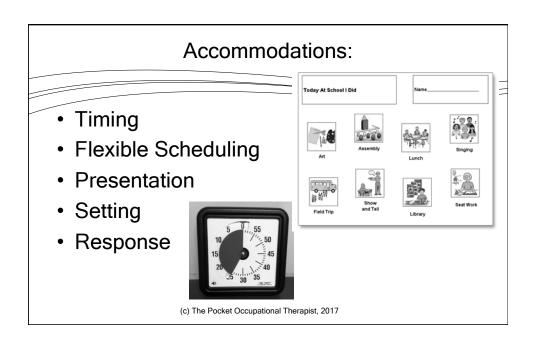


More Accommodations!

- Pack backpacks the night before
- Desk corral
- Rubrics
- · Index cards on each task area
- Divided sections in desk and homework area
- · Extra set of books at home.









Learning Disabilities:
Toolbox
Goals and Objectives
For Clinic, School, &
Home

Occupational Therapy Considerations

- OTs are uniquely qualified to look at the SKILL of reading and how it impacts function.
- We look at the use of skills in our occupation effectively!



School Strategies

- **1.** Review schedules, rules, and routines and make sure expectations are clear and child is aware of possible changes in schedule
- **2.** Provide behavior and frustration plan and review often BEFORE difficulties arise.
- **3.** Introduce keyboarding early to decrease writing and so child can engage in the learning vs. writing.
- 4. Use proper paper and writing instruments.
- 5. Introduce alternative seating
- 6. Utilize sensory integration options

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School Strategies

- **8.** Ensure IEP/504 accommodations include extra time.
- 9. Allow child to present reports orally and use drawings vs. writing reports. Record a story and/or type reports.
- **10.** Clean-out desks on regular basis with help.



Home Strategies

- 1. Establish a daily routine for getting ready for school and for doing homework. Post routines and charts
- 2. Set fine motor goals early on and use repetitive practice

орожино разлача

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Home Strategies

- 3. When trying new activities, review rules and regulations that other children may innately know or have picked up on.
- **4.** Try swimming, running, bicycling, skiing rather than team sports.
- 5. Join clubs and activities



Child-Driven Plans

- Encourage children to participate in chores BUT talk through it using sequential words.
- Ask children which activities they will do in a given time period to work on time management and referencing time.
- Begin with one-step tasks to build success.

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OT Performance Components

- Occupational performance components of handwriting include:
 - postural control and other neuro-musculoskeletal components in the pelvis, trunk, shoulder, and neck;
 - level of arousal, attention span, sequencing and other cognitive components; visual perception;
 - perception of touch, body position and movement;
 - motor planning and motor control;
 - hand preference and integration of the two sides of the body; visual-motor integration;
 - basic function of the hand including wrist stability, arch formation and finger dexterity.
 - Remedial and preventive interventions include collaborating with others to modify students' seating; designing or procuring assistive technology devices; and training teachers, students and families to use them.



Goals OVERALL:

- Remember that OT services in the school look quite different than goals in the clinic.
- Can be:
 - pencil grasp goals
 - regulation of self (using calming strategies)
 - mindfulness (brain breaks)
 - organization goals

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Regulation Goals:

- Khalil will attain and maintain an appropriate level of arousal for activities for 2 hours out of the day with 4 rest breaks as measured by teacher and family report.
- Using sensory strategies, Mara will demonstrate appropriate sensory modulation skills in order to sit and participate in circle time at school without aggression towards peers in 4 out of 5 days of the week as measured by teacher report.



Writing/Typing Goals

- By July 2018, Julia will imitate prewriting lines (vertical and horizontal) on a variety of media (i.e paper, smartboard, dry erase board) without assistance from the therapist 80% of the time over a 4 week period as measured by observation and data collection.
- Micha will locate and place hands correctly on home row (asdf jkl;) of keyboard and type using both hands with fewer than 5 errors on 4 out of 5 trials after 12 treatment sessions.
- Jeff will maintain a functional sitting posture with upright head and trunk, hips at 90°, and feet flat on the floor, without support from arms, during a table top task for 10 minutes, 4 out of 5 trials during the three month period.

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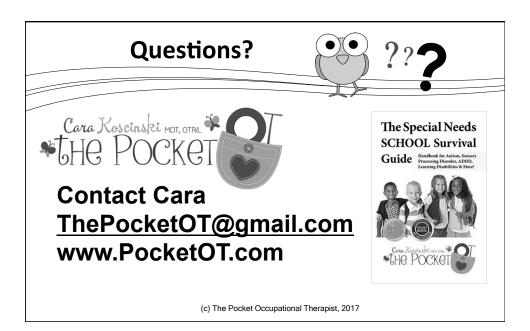
Visual, Money & Writing Goals

- By Nov.3, 2015, Bill will demonstrate visual memory by copying a 3 block vertical and horizontal pattern, after the model is removed from her visual field, independently 80% of the time as measured by observation.
- Kimmie will write a 3-4 word sentence from a model using 1/2" highlighted line paper demonstrating appropriate sizing with a minimum cue (verbal or gestural) from the therapist during the 12 week treatment period.
- Jacob will complete all necessary fields of a form on 8/10 attempted opportunities independently in one year.
- Cara will use coins and bills up to \$20 in order to pay for an item on 4/5 consecutive trials by the next IEP review (4 months from date of eval.)



Types of Service Methods:

- Direct Service/Indirect Service Remediation:
 - Help develop reach and grasp for school work and daily living activities
 - Design a sensory motor curriculum for fine motor development. Staff implements the goals
 - OT measures student progress.
- · Prevention:
 - Provide sensory integration to increase self-regulation and coping during the day
 - Develop strategies to decrease unnecessary, unexpected or prolonged sensory stimulation in the classroom.
 - Staff implements the goals, OT measures student progress.
- Compensation:
 - Develop and teach a cue system for following a required sequence in a job
 - Change the layout of a work environment to reduce the number of steps required to complete the task.
 - OT monitors student progress and effectiveness of the modification.





Resources

- http://www.dyspraxiausa.org/symptoms/early-symptoms/
- http://www.england.nhs.uk/ourwork/forward-view/sop/red-prem-mort/ldis/
- https://www.gov.uk/government/statistics/disability-facts-and-figures
- http://www.learningdisabilities.org.uk/help-information/Learning-Disability-Statistics-/
- http://www.ncld.org/wp-content/uploads/2014/11/2014-State-of-LD.pdf
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