Telehealth in School-Based Practice:
Balancing Opportunity and Ethical Considerations

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My journey…

Telehealth Overview Video
(Jana Cason)

https://www.youtube.com/watch?reload=9&v=cqtbO0QugcM

AOTA'S TELEHEALTH POSITION PAPER
Definition of telehealth

- "…the application of evaluative, consultative, preventative, and therapeutic services delivered through information and communication technology" (AOTA, 2018)

Areas addressed in AOTA Telehealth Position Paper

| Telehealth Models of Care and Applications | Technology | Practitioner Qualifications and Ethical Considerations | Funding and Reimbursement |

Overview of Telehealth Technology

Synchronous

"Live"

- Videoconferencing
- Real-time monitoring devices
- Interactive virtual reality devices

Asynchronous

"Store-and-forward"

- Recorded video
- Recorded data from monitoring devices
- Digital photographs
- Electronic communication

(AOTA, 2018)

Why use telehealth?

- Increases:

  - Access to OT
  - Educational opportunities
  - Comfort
  - Continuity of Care
  - Support network

- Decreases:

  - Travel
  - Mobility concerns
  - Risks to immune system/Infectious Exposure

Current use of Telehealth

- NASA
- State prison systems
- Hospitals
- Disaster sites
- Remote clinics
- Veteran's Affairs clinics and hospitals
- Schools

State of the evidence

- Position paper
- AOTA's practice areas
  - Children and Youth
  - Health & Wellness
  - Productive Aging
  - Mental Health
  - Rehabilitation, Disability, and Participation
  - Work and Industry

- Overall efficacy and satisfaction
  - Systematic review (Kairy, et al., 2009)
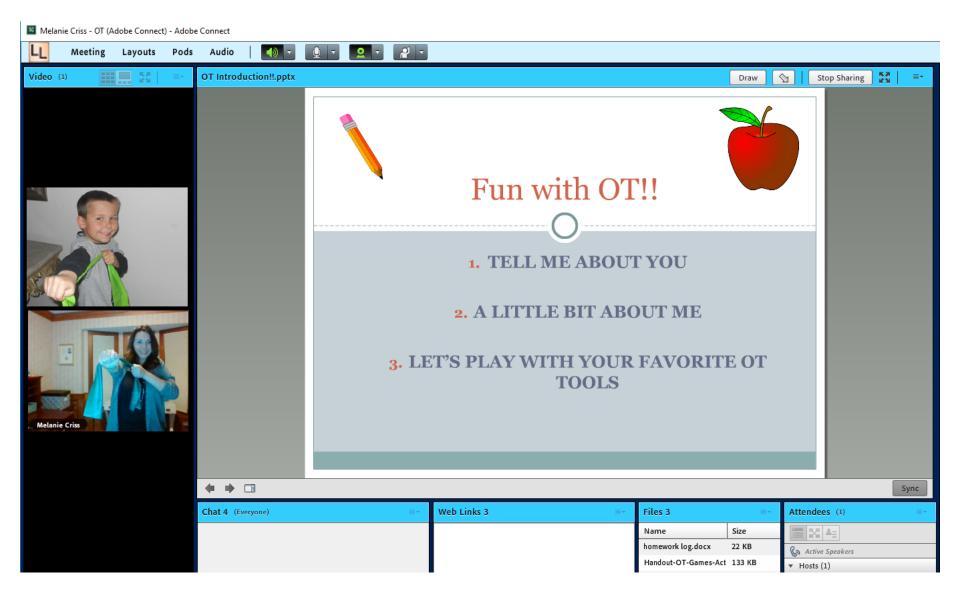 - Systematic review (Agostini et al., 2015)

Videoconferencing Technologies

Note: (1) This list is not all inclusive nor intended to endorse/recommend any specific software; (2) The examples provided should be evaluated further for their intended purposes prior to use; and (3) Consider compatibility with available browsers/devices.

- **Zoom for healthcare** (subscription-based; https://zoom.us/plan/healthcare)
- **Adobe Connect** (subscription-based; https://www.adobe.com/industries/healthcare.html)
- **BlueJeans (**subscription-based; https://support.bluejeans.com/sites/default/files/support/u116/Blue%20Jeans%20Telehealth%20Data%20Sheet.pdf
- **Cisco WebEx** (subscription-based; http://www.cisco.com/web/strategy/healthcare/webex_for_healthcare.html)
- **Citrix Go-to-Meeting** (subscription-based; https://www.gotomeeting.com/meeting/hd-video-conferencing-resources/documents-reports/gotomeeting-and-hipaa#.VmNYJbiDFBc)
- **Doxy.me** (FREE limited features/subscription-based; https://doxy.me/)
- **Vidyo** (subscription-based; http://www.vidyo.com/solutions/healthcare/)
- **VSee** (subscription-based; https://vsee.com/)

Also see: Watzlaf, V., Moeini, S., & Firouzan, P. (2010). VOIP for telerehabilitation: A risk analysis for privacy, security, and HIPAA compliance. *International Journal of Telerehabilitaiton, 2*(2), 3-14. doi: http://dx.doi.org/10.5195/ijt.2010.6056
Available at: http://telerehab.pitt.edu/ojs/index.php/Telerehab/article/view/6056

Adobe Connect Technology

Links to school-based video demonstrations of OT telehealth on Zoom

- Fine Motor/Tennis Ball: https://youtu.be/7ckA4UhJUpc
- Fine Motor Skills/Coins: https://youtu.be/wa6ix6W8jKI
- Directionality/Right-Left Discrimination: https://youtu.be/wVw4dXM5Qz0

OT EVALUATION VIA TELEHEALTH

Evaluation

- Sensory:
  - Sensory Process Measure (SPM)
  - Sensory Profile 2
- Handwriting:
  - Print Tool; Handwriting Assessment Protocol 2nd ed.; DeCoste Handwriting Protocol/Written Productivity Profile
  - Skilled observation
  - Writing samples
- Fine motor skills
  - Pinch patterns
  - Simple/complex rotation
  - Translation (finger->palm->finger)
- Visual perceptual/visual-motor skills
  - Beery-Buktenica Test of Visual Motor Integration
  - Informal Visual Perception assessments
  - MVPT (general reference, more publishers are digitizing standardized tools0

OT
INTERVENTIONS
VIA TELEHEALTH

Telehealth with the school-aged population

https://www.hwtears.com/hwt/online-tools/digital-teaching-tools
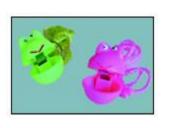
Areas addressed:

- Motor planning/bilateral coordination
- Upper body strengthening
- Core strengthening
- Visual-perception/visual-motor
- Handwriting
- Fine motor/hand skill development
- Sensory strategies
- Activities of daily living (self-help)

http://www.eyecanlearn.com/

OT Toolkit!

Motor Skill Development

www.YourTherapySource.com

Visual Perceptual Skill Development

Remember the words in each box.

not	make	is

my	down	one

Find the following word:

me

yellow   big

me

blue

Remember the words in each block.

blue

said   me

Identify the word behind the clouds.

little _____

find _____
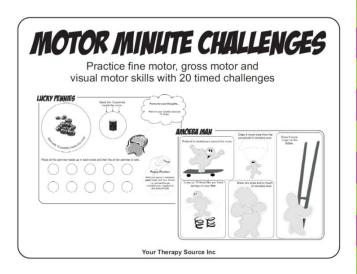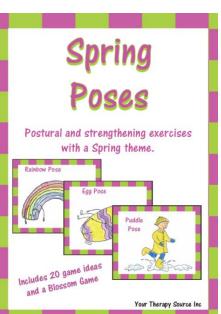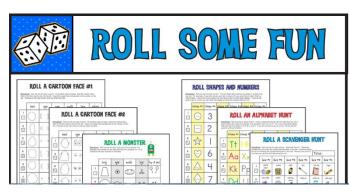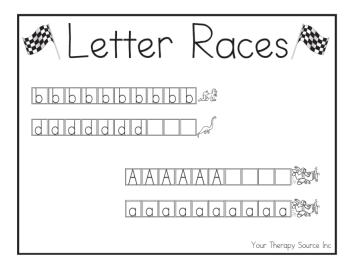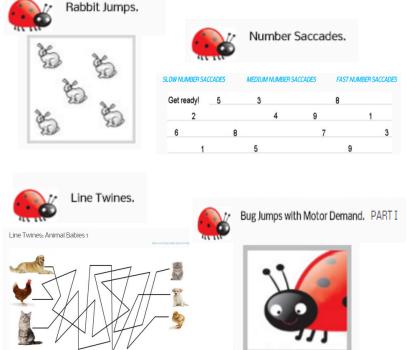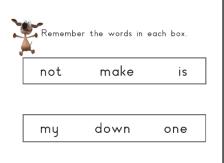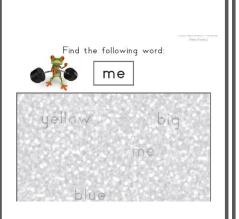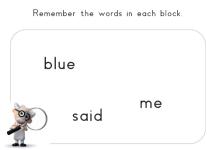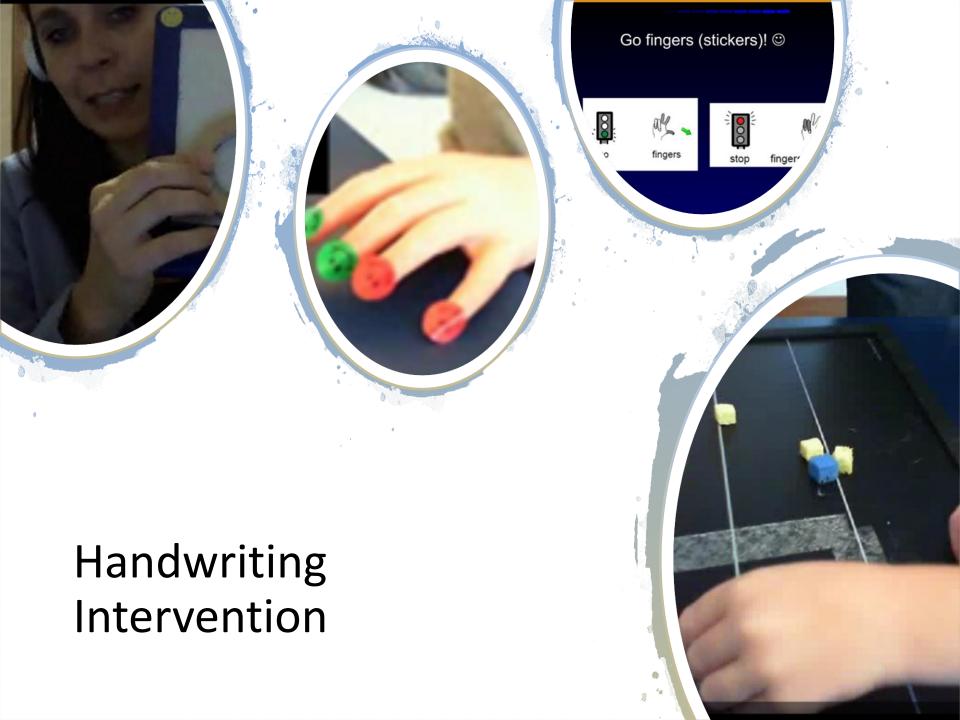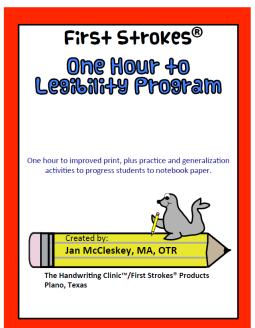
Visual Learning For Life

Go fingers (stickers)! ☺

fingers   stop   fingers

Handwriting Intervention

Handwriting Without Tears®

First Strokes®
One Hour to Legibility Program

One hour to improved print, plus practice and generalization activities to progress students to notebook paper.

Created by:
Jan McCleskey, MA, OTR

The Handwriting Clinic™/First Strokes® Products
Plano, Texas

Handwriting Programs

Multisensory Keyboarding Intervention

TypingClub

Home · Stats · Badges · Typing Jungle ▾

0% progress | **0 stars** | **0 points**

Home Row

1	2 🔒	3 🔒	4

Click the lesson to begin

Introduction to Typi... · Keys f & j · Space Bar

Welcome to the Byte Back Typing Tutorial!

Introduction
How to Type
Using the Tutorial

Lesson #1
Lesson #2
Lesson #3
Lesson #4
Lesson #5
Lesson #6
Lesson #7
Lesson #8
Lesson #9
Lesson #10
Lesson #11
Lesson #12
Lesson #13
Lesson #14
Lesson #15
Final Test

Advanced
Lesson #1
Lesson #2
Lesson #3

Extra Practice
Practice #1
Practice #2
Practice #3
Practice #4
Practice #5

Resources

Clear Statistics

The Byte Back Typing Tutorial is a free course designed to teach touch typing. Lessons, shown on the left, begin by teaching the home row keys and then gradually add additional keys until the entire keyboard is mastered.

At the end of each exercise, your words per minute, total time, errors, and characters will be displayed. Repeat each lesson as many times as necessary. It is good to complete a lesson with no more than 5 errors and at a speed of at least 20 words per minute (WPM) before moving on to the next lesson.

Remember, accuracy is the key! Go slow at first and learn the keyboard. Speed will come naturally with time and practice.

Once all the lessons have been completed, additional challenging exercises are provided to help increase speed and accuracy.

KEYBOARDING Without Tears™

Dance Mat Typing

Keyboarding Programs

Sensory/Emotional Regulation Intervention
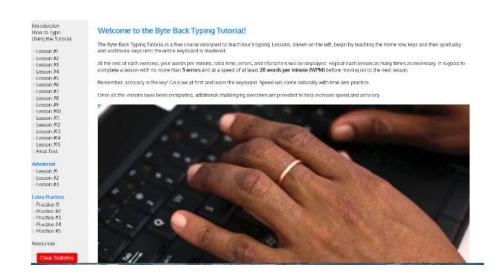
Life Skills

MORNING
SHOWER
GET DRESSED
BREAKFAST
BRUSH TEETH
MAKE BED
DOUBLE CHECK BACKPACK

EVENING
MAKE LUNCH FOR NEXT DAY
SET CLOTHES OUT
BRUSH TEETH
SAY PRAYERS

DAILY CHECKLIST

	MON	TUES	WEDS	THURS	FRI
morning					
practicing					
family					
homework reading					
night					

Extras: _____

_____
_____

I can press my hand hard against my mouth.
This gets my mouth ready for the tooth brush.

How do I write my name?

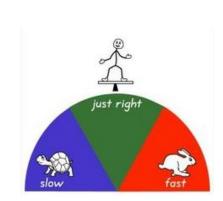| Today's Date (M/D/Y) /	Name: Last	MI	First	Maiden
DOB (M/D/Y) /	Age	Signature of Applicant		

Full name (print) _____ Date _____

Date of birth (day/month/year) _____ Applicant Signature _____

Personal Care Series

GROOMING

REM 1145C

WRITER: Martha C. Reith
EDITOR: Becky Majewski
& Marcella Hines

A TEACHING RESOURCE FROM

MENU MATH

FOR BEGINNERS

REM 111A

A TEACHING RESOURCE FROM

FILLING OUT FORMS

REM 435

A TEACHING RESOURCE FROM...

ReMedia Publications for Life Skills

School-Based Interventions

www.YourTherapySource.com

SAMPLE THERAPY SESSION

Catching Up

- How is your day today?

- Did you get a chance to complete your homework activity?

Let's warm up our body ☺

Animal parade

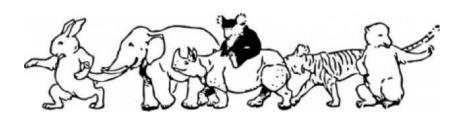- **Butterfly (figure 8 in air)**
- **Swimming seal/superman**
- **Roly poly**
- **Flamingo stand (eyes closed)**

Animal parade

- **Elephant**
- **Snake**
- **Bear walk**
- **Crab walk/kick**
- **Duck walk**
- **Inch worm**
- **Frog frolic/frog jumps**

Targeted Movement-based Gross Motor/Primitive Reflex Activities

Animal Parade Adapted from		
The Mad Cat - Get down on your hands and knees with your back straight and elbows slightly bent. Slowly raise head to look up and then lower head to look down holding for a count of 5 (Anti-Symmetric Tonic Neck Reflex).	The Curious Cat - Get down on your hands and knees with your back straight and elbows slightly bent. Slowly (5 seconds) turn head to the right and to the left holding for a count of 5 (Anti-Asymmetric Tonic Neck Reflex).	The Swimming Seal ('superman')- Lie down on your stomach with arms stretched out forward, legs together and straight back. Lift arms and legs up at the same time while arching the back. Keep head up and looking forward; legs should be as straight as possible. Hold together with toes pointed (ATNR - prone).
The Roly Poly – Lie down on your back with arms and legs straight (relaxed). Curl up into a little ball squeezing the knees tightly with the arms. Hold for 10 seconds and repeat (Anti- Tonic Labyrinthine Reflex - supine).	The Kangaroo Jump – Stand with feet together and back straight. Bend your knees and bend both arms in front of you with hands drooping forward. Jump forward as far as you can go. A variation of this can be jumping to the front, back, left, and right following various sequences.	Flamingo Stand - Stand with your feet together. Bend one knee up and hold as long as you can. Now do the other leg. Adaptation while skill is developing: stand and hold on to a chair or bring the leg just slightly off the floor.
Bunny Bounce – Stand with your feet together and knees slightly bent. Hop first on the right foot (specific # of times), then switch and hope on the left foot (specific # of times).	Snake – 'Belly crawl' along the floor keeping yourself low with your belly on the ground.	Bear walk – Place hands and feet on the floor; both should be about should width apart. Legs should be slightly bent. Walk forward moving hands and feet.
The Crab Walk - Sit on the floor with knees bent, feet flat on floor, hands flat on the floor and slightly behind the body. Lift hips off the floor and walk backwards. For an advanced skill, walk forward.	The Crab Kick - Sit on the floor with knees bent, feet flat on floor, hands flat on the floor and slightly behind the body. Lift hips off the floor. Kick the right leg in the air. After you have done this, ten times switch and kick with the left foot.	The Duck Walk - Place feet slightly apart, bend the knees, and bend the trunk forward in a squat position. Place arms on the inside of and grasp ankles with hands. Walk backwards in the same position. This is an advanced exercise.

Let's Warm Up Our Fingers ☺

- Choose 2: (You pick☺)
  - Tennis Buddy – cut slit to feed coins
  - Clothespin game
  - Tweezers/Tongs
  - Dice game (practicing math)
  - Miniature cube stacking
  - Bubble wrap finger pops
  - Pipette/water on coin
  - Flip and pick up coins in one hand
  - Balloon activities

Let's practice handwriting ☺

Be on the lookout for many freebie resources that you can use.

Example on this slide from
https://msjordanreads.com/

Roll-a-Story!

Rolled #	Character	Setting	Problem
⚀	a two-headed monster	inside a hidden cave	found an unlucky penny
⚁	a fire-breathing dragon	at a farm	was chased by a tornado
⚂	a beautiful princess	by a lake	got lost in space
⚃	an ugly toad	in a hot desert	got separated from his/her friend
⚄	a handsome knight	in a dark forest	ate a poisoned berry
⚅	a grumpy bear	at a magical castle	lost his/her memory

Directions: Roll the dice THREE times, once for each column, to mix-and-match different story elements. Record each story element on the graphic organizer, along with any additional story ideas!

Let's work on visual skills ☺
Eye Can Learn (http://www.eyecanlearn.com/)

- Visual tracking
  - Fixation
  - Saccades
  - Central/peripheral integration
  - Pursuits

- Visual perception
  - Discrimination
  - Memory
  - Sequential memory
  - Spatial relations
  - Figure ground
  - Closure
  - Form constancy

Brain Exercises (cont.)

Let's choose one activity

Rotating pieces puzzle: http://www.akidsheart.com/gamesd/rotpuzzle.html

Online jigsaw puzzles: http://www.akidsheart.com/gamesd/jigsaws.html

Jigsaw puzzles – timed (challenging)! http://www.jigzone.com/

Brain Exercise! ☺

- **Let's choose one activity (from the next few slides):**

  http://www.freegames.ws/games/kidsgames/simon/mysimon.htm
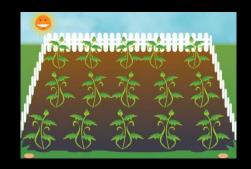
  http://akidsheart.com/chela/candyseq.html

  http://www.learn4good.com/games/memory-concentration/matchinggames.htm
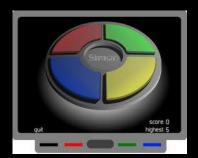
- **Memory Match Game:**
  http://www.akidsphoto.com/fun/matchan01.html#.Vr6Yx_krKUk

Brain Exercise (cont.) ☺

http://www.learninggamesforkids.com/memory_games/memory-games-sequence-memory.html

http://www.learninggamesforkids.com/memory_games/memory_games_icecream_madness.html

http://www.apples4theteacher.com/holidays/presidents-day/games/

(Includes word searches, trivia, and jigsaw puzzles)

***Let's try this link:
http://www.apples4theteacher.com/mtrpuzz.html

FM 1 – Crumpled paper/straw tongs

FM 2 – Assorted tweezers

FM 3 – Caterpillar game

FM 4 – Frog fling game

FM 5 – Dice (targeting in-hand manipulation); can add math component

FM 6 – Cubes/blocks

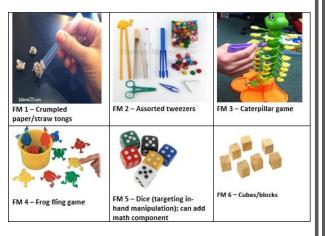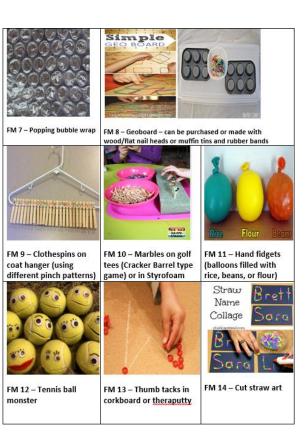FM 15 – Retrieve hidden objects in theraputty; hand exercises with theraputty

FM 7 – Popping bubble wrap

FM 8 – Geoboard – can be purchased or made with wood/flat nail heads or muffin tins and rubber bands

FM 9 – Clothespins on coat hanger (using different pinch patterns)

FM 10 – Marbles on golf tees (Cracker Barrel type game) or in Styrofoam

FM 11 – Hand fidgets (balloons filled with rice, beans, or flour)

FM 12 – Tennis ball monster

FM 13 – Thumb tacks in corkboard or theraputty

FM 14 – Cut straw art

Free choice activity

Pick a free choice activity from the OT menu

Ethically Speaking…

Legislation, challenges, ethical considerations

Ethical Considerations

- Code of Ethics
- Laws & Regulations
  - Licensure
  - Federal Regulations (next slide)
- Technological security concerns
- Competence and expertise
- Clients must be fully informed (next slide)
- Clients must have the right to refuse
- Decisions for client appropriateness should be individualized and determined on a case-by-case
  - Selections based on clinical judgment, client informed choice, and professional standards of care.

https://www.aota.org/~/media/Corporate/Files/Secure/Advocacy/State/Telehealth-State-Statutes-Regulations-Regulatory-Board-Statements.pdf

Federal Legislation

- Health Insurance Portability and Accountability Act (HIPAA)
- Health Information Technology for Economic and Clinical Health Act (HITECH)
- Family Educational Rights and Privacy Act (FERPA) [Educational setting]

As a practitioner, it is important to select technologies and implement processes that will protect patient privacy and security of protected health information (PHI)

Informed Consent

- Very important
- Allows the client to ask questions
- Informs client about using a telehealth approach vs. in-person
- Important from a legal perspective

Benefits

- Increased/easy access to the therapy providers
- The opportunity to observe the session and learn strategies to use at home
- Student familiarity with the learning environment as services are provided in the natural home environment
- Decreased time needed to travel to a clinic
- Enhanced student attention because of technology
- Decreased costs associated with traveling
- Increased instruction time due to decreased travel time
- Decreased exposure to public environments for individuals with compromised immune systems

Challenges

- Poor broadband coverage/internet speeds in some rural areas
- Higher costs for accessing high-bandwidth/faster internet speeds
- Difficulties with equipment reliability
- Difficulty understanding technology tools
- Initial difficulty developing rapport
  - Poor video connections
  - Absence of therapeutic touch
  - Potential for challenging communication encounters.
- Lack of extensive research in the area of telehealth.
- NOTE: In our survey research, many families reported they did not see any disadvantages to services provided via telehealth

Telehealth = OT Service Delivery Tool!

Telehealth is a DELIVERY MODEL or TOOL for delivering occupational therapy (not a separate service) – **the service being provided IS OCCUPATIONAL THERAPY**

As such:

- it fits within existing OT scope of practice
- standards of care (i.e., Code of Ethics) with associated disciplinary mechanisms already exist

- With hippotherapy, the horse is the tool for the delivery of occupational therapy services.
- Similarly with telehealth, technology is the tool for the delivery of occupational therapy services

Image from http://occupationaltherapyforchildren.over-blog.com/article-hippotherapy-77717004.html

What does your State Licensure Board Think about Telehealth?

"*Occupational therapy may be provided via technology or telecommunication methods, also known as telehealth, however the standard of care shall be the same whether a patient is seen in person, through telehealth, or other method of electronically enabled health care*"

(Illinois Occupational Therapy Practice Act, 2013)

AOTA State Affairs Department (2019): Occupational Therapy and Telehealth State Statutes, Regulations, and Regulatory Board Statements

https://www.aota.org/~/media/corporate/files/secure/advocacy/state/telehealth-state-statutes-regulations-regulatory-board-statements.pdf

Center for Connected Health Policy (2018): State Occupational and Physical Therapy Telehealth Laws and Regulations: A 50-State Survey

http://telerehab.pitt.edu/ojs/index.php/Telerehab/article/view/6269

Getting Started …

- Explore existing programming/models
- Identify HIPAA/FERPA compliant technology solutions
- Identify reimbursement structures
  - States with private insurance telehealth parity mandates
  - Advocacy resources
- Start small, gain confidence, expand from there!
  - It's not an 'all or nothing' approach; **hybrid model** (combination of telehealth and in-person services is also an option!)

Resources to start your journey!

- **World Federation of Occupational Therapists** (WFOT) Telehealth Position Statement http://www.wfot.org/ResourceCentre.aspx

- **American Occupational Therapy Association** (AOTA) http://www.aota.org/telehealth

- **Canadian Association of Occupational Therapists** (CAOT) https://www.caot.ca/

- **American Telemedicine Association Telerehabilitation Special Interest Group** http://www.americantelemed.org/main/membership/ata-members/ata-sigs/telerehabilitation-sig

- **International Journal of Telerehabilitation** (open access, peer-reviewed, PubMed indexed) http://telerehab.pitt.edu/ojs/index.php/telerehab

- **Telehealth Resource Centers** (US-based) http://www.telehealthresourcecenter.org/

- Social Media – Facebook (OTinTelehealth)/Twitter (@OTinTelehealth)

Additional Telehealth Resources

American Telemedicine Association (ATA)/Telerehabilitation Special Interest Group (TR SIG)

https://telerehab.pitt.edu/ojs/index.php/Telerehab/article/view/6232/6748
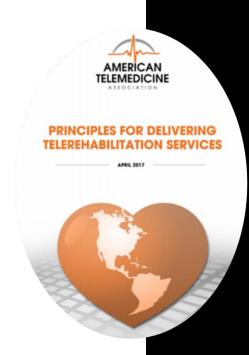
Center for Telehealth and e-Health Law (CTel)
http://ctel.org/

International Journal of Telerehabilitation - Open access peer-reviewed journal published bi-annually
http://telerehab.pitt.edu/ojs/index.php/telerehab

Telehealth Resource Centers
http://www.telehealthresourcecenter.org/

NCHAM Tele-intervention Guide
http://www.infanthearing.org/ti-guide/

Questions...

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Kelso, G., Fiechtl, B., Olsen, S., & Rule, S. (2009). The feasibility of virtual home visits to provide early intervention: A pilot study. *Infants & Young Children, 22*, 332-340.

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