The Next Generation: Building ABA-OT Collaboration

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ASD in the United States

- 3.5 Million Americans living with ASD
- Prevalence in US children increased by 119.4% 2000-2010
- Annual cost to US citizens: $232-262 billion (Buescher, et al., 2014)

Resulting in an increased utilized of ABA services

Legislation specifically supporting ABA

- Caring for Military Kids with Autism Act (2011)
- Burge v. United States of America (2012)
- State Legislation

(Kennedy Krieger Institute, 2019)
Changes in State Healthcare Legislation

- **2015**: Several states enacted legislation mandating healthcare coverage of Autism (limitations apply)
  - Colorado, Georgia, Kansas, Missouri, South Dakota, Virginia, Washington
- **2017**: 46 states and District of Columbia have mandated coverage legislation

"Va. Code § 38.2-418.17 mandates coverage for autism spectrum disorder, requiring health insurers, health care subscription plans, and health maintenance organizations to cover the diagnosis and treatment of autism spectrum disorder in individuals within a specified age group."

(Applied Behavior Analysis Edu., 2018)

In February 2019, HB 2577 and SB 593 lifted age restrictions on the treatment of children with ASD. A joint bill is currently waiting on Governor Northam’s signature.

200+ Million people have health insurance coverage for ABA therapy

(Autism Speaks, 2018)
Since 2014, most state Medicaid agencies clarify ABA is a covered benefit when medically necessary and provided by qualified providers (Autism Speaks, 2018).

**ABA- changes in billing- CPT code**

- ABA codes first approved in 2013
- Category III
- Major revisions in effect January 1, 2019
- More reliable billing and coverage (Autism Speaks, 2018)

**What is ABA?**

- ABA is a well-developed discipline among the helping professions that focus on the analysis, design, implementation and evaluation of social and other environmental modifications to produce meaningful changes in human behavior.
- Underlying premise: behavior is the product of circumstance, particularly events that immediately follow the behavior. (Behavior Analyst Certification Board, 2019)
Who else is served by ABA?

Individuals with:
- Severe Destructive Behavior
- Substance Abuse
- Pediatric Feeding disorders
- Traumatic Brain Injury
- ADD/ADHD
- Intellectual Disabilities

What are the credentials for ABA providers?

**BCBA-D**: Doctoral degree and 10 year post-doctoral experience in behavior analysis, certification and state licensure, insurance liability

**BCBA**: Master’s degree, 12 credit hours in behavioral analysis, 6 months employment, certification and state licensure, insurance liability

(Behavior Analyst Certification Board, 2019)

**BCaBA**: Bachelor’s degree in behavioral analysis and a minimum of 1000 hours of supervised independent fieldwork and

**RBT**: eligibility includes: 18 years of age, highschool education, clear background check, 40 hours training, initial competency assessment, RBT exam

(Behavior Analyst Certification Board, 2019)
Evidence Based Practice

Welch and Polatajko (2016) identified "the emergence of an argument for the development of synergistic relationship between occupational therapy perspectives on ASD intervention and principles of ABA intervention. (p. 2)"

Welch and Polatajko purpose that as OTs, we have analysis skills which can be used to adapt ABA principles within the larger context of OT practice.

Evidence Based Practice

White, Stokes, Simons, Longerbeam, Richardson, & Zinn (2018) evaluated the use of a merged simultaneous delivery model with OT, SLP, & ABA.

Each discipline was trained in 2 procedures from the other disciplines

Child outcomes improved and consistent positive changes in implementation of merged skills following interprofessional coaching with a high degree of fidelity.

Evidence Based Practice

Irvin, McBee, Boyd, Hume, and Odom, (2011), examined the dosage of OT, SLP and ABA services.

Children with more sensory symptoms have higher caregiver stress levels. These caregivers were more likely to seek higher doses of private OT services.
Evidence Based Practice

Will et al. 2018 completed a systematic review of literature from 1957-2012 including 1,164 studies.
Effective treatment requires an interdisciplinary team
ABA is an effective therapy starting in early childhood and continuing to 22 yrs.

Evidence Based Practice

The following OT interventions are deemed effective: picture and written schedules, social stories, live and video modeling, social skills training, CBT, ADL training, AAC.
Found moderate evidence for the use of SI.
OTPs are uniquely skilled to address fine motor incoordination and praxis. (Will et al., 2018)

Traditional OT Interventions

- Sensory Integration, Sensory Processing, Sensory Diets
- Social Skills Training: Groups, Social Stories
- ADL & IADL Training
- Prevocational Skills, CBT
- Assistive Technology Evaluation & Training
- Family & Caregiver Training

(Crabtree & Demchick, 2018; Welch & Paltajko, 2016; Will et al., 2018)
What strengths can OT Practitioners can learn from ABA?

1. The importance of quantitative data collection
   - Measure frequency, rate, duration, & response time
   - Evaluates changes in levels, trends and variability
   - Through clearly identified data collection periods
   - The process of collecting data guides interactions and learning opportunities.
   (Linstead et al., 2017)

Strengths of ABA Continued

2. Using the ABC sequence to prevent rewarding negative behaviors unintentionally
   - Antecedent -> Behavior -> Consequence model
   
   Example: OTPs may incidentally reward negative behavior by providing sensory input at the onset of negative behaviors to prevent escalation.
   (Welch & Polatajko, 2016)

Strengths of ABA Continued

3. ABA model provides more face time with clients
   
   Based on Linstead et al. (2017), treatment intensity and duration had significant positive effects on academic, adaptive, cognitive, executive function, language, motor, play and social domains.
   Study participants received a minimum of 20 hours of ABA monthly.

   By comparison, how many hours per week do you see similar children?
What does OT offer?

1. A focus on qualitative measures. Use of observation, perceived improvement by caregiver & mastery of STGs. (Linstead et al., 2017)

2. Mitigating the impact of the sensory environment. OT are adept at antecedent strategies to set the individual up for SUCCESS. (Welch & Polatajko, 2016)

What does OT offer?

3. Deficits in motor skills can impact independence. OTPs facilitate building coordination, praxis and gross and fine motor skills to increase functional performance. (Will et al. 2018)

4. Use of compensatory strategies; OTPs participate in the evaluation & training for adaptive equipment
   ie. augmentative communication systems.

What does OT offer?

5. Client centered. OT’s focus on the client’s values and interests and implement strategies in real life contexts using naturalistic techniques. (Welch & Polatajko, 2016)

6. OT’s value playfulness and can build a rich play experience (Welch & Polatajko, 2016)
Impacts of not collaborating...

- Limits the anticipated progress our clients can make.
- Increase parent/caregiver stress.
- Loss scope practice.

The number of OT practitioners in mental health are continuing to decline in spite of the our roots in mental health.
(Data selected from AOTA, 2015.)

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Our Solution: Faculty Led Fieldwork I

Fieldwork I Structure

- Students participated in the early childhood special education program 1 morning a week.
- Students were assigned to a specific student for 6 weeks to observe and participate in activities with the RBTs and BCaBAs.
- Students modeled OT strategies through implementing group interventions during their final week:
  - A craft
  - A tactile sensory activity
  - Story time
  - Gross motor activity
Fieldwork I Benefits

- Increased OT referrals
- Better positioning for children during activities
- Suggestions for equipment and modifications to the gross motor room
- A better understanding of each other’s goals
- A better understanding of how to use sensory strategies and behavioral strategies together
- Increased awareness of available adaptive equipment

Case Study: Susan

Down Syndrome & Autism

5 years

Kg private ABA program

ABA Goals:
1. Use a spoon to feed herself
2. Place shapes into the correct holes of a shape sorter
3. Place pieces into a single well puzzle
4. Draw a circle
5. Drink from a cup
6. Pull her pants up and down for toileting.
OTAS Observations: Susan

- Low muscle tone, began walking at 3.5 yrs of age
- Falls out of chair and frequently places feet on the table. Currently has no positioning equipment.
- Doesn’t have a firmly established hand dominance
- Uses immature grasp patterns and doesn’t have in-hand manipulation skills
- Highly motivated by music and visual stimulation, seeks proprioceptive input, but is tactilely defensive and gravitationally insecure
- Picky eater with poor oral motor skills

Questions:

1. Using a consultative model, how can we support Susan to master the goals established by his ABA practitioner?
2. What additional goals would we as OT practitioners want to address?
3. What underlying client factors and performance patterns need to be addressed through OT?
4. What traditional OT strategies can be paired with ABA strategies?
5. What environmental modifications or adaptive equipment would you suggest?

Discussion: Case Study A

Case Study: Adam

- Down Syndrome & Autism
- 16 years
- private ABA program
ABA Goals:
1. Recite key individuals/caregivers
2. Correctly identify personal information (name, age, etc)
3. Express current emotions
4. Minimize non-compliance episodes
5. Incorporate Zones of Regulation into communication

OTAS Observations: Adam
- Low muscle tone, tends to “flop” whenever possible
- Non-compliance increases in transition between activities
- Zones of Regulation program is in initial stages of implementation
  - “Blue” zone is often lethargic; “green” zone is relaxed and happy; “yellow” zone can be good/bad (often anxious); “red” zone can be aggressive or mean
  - Blue and yellow zones tend to mimic each other
- Highly motivated by snacks as a reward system

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5. Who else in Adam’s life needs to incorporate ZOR? How can this be accomplished?
Case study DISCUSSION

A: Susan
B: Adam

We Are Better Together!

"Clinicians should strive to provide children with...an interdisciplinary, multi-modal approach that addresses the individual patient’s deficits while building on his or her strengths, and prioritizes the patient’s and family’s goals and priorities”

(Will et al., 2018)

This is a complex endeavor.
Case Study Overview: Susan
Age: 5  |  Dx: ASD and DS  |  Grade: Kindergarten in private ABA program

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