

- If you are viewing this course as a recorded course after the live webinar, you can use the scroll bar at the bottom of the player window to pause and navigate the course.
- This handout is for reference only. Non-essential images have been removed for your convenience. Any links included in the handout are current at the time of the live webinar, but are subject to change and may not be current at a later date.

No part of the materials available through the continued.com site may be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine-readable form, in whole or in part, without prior written consent of continued.com, LLC. Any other reproduction in any form without such written permission is prohibited. All materials contained on this site are protected by United States copyright law and may not be reproduced, distributed, transmitted, displayed, published or broadcast without the prior written permission of continued.com, LLC. Users must not access or use for any commercial purposes any part of the site or any services or materials available through the site.

Technical issues with the Recording?

- Clear browser cache using [these instructions](#)
- Switch to another browser
- Use a hardwired Internet connection
- Restart your computer/device

Still having issues?

- Call 866-782-9924 (M-F, 8 AM-8 PM ET)
- Email customerservice@OccupationalTherapy.com

CONTINUED

Incorporating ABA Principles in OT: A Collaborative Approach Towards Pediatric Patient Care and IPE

Dr. Aditi Mehra DHS, OTR/L

CONTINUED

A collaborative journey from OT to ABA...



CONTINUED

CONTINUED

Learning Outcomes

After this course, participants will be able to:

1. Define the underlying principles of applied behavior analysis (ABA).
2. Identify the principles of ABA to manage behaviors and improve patient outcomes.
3. List strategies to foster Inter-professional collaboration and education.

CONTINUED

“Playing nice in the sandbox.”

“ABA therapy turns children in to robots.”

“ABA strategies are manipulative.”

“ABA therapists act very superior and condescending.”

“OT’s don’t have evidence to support Sensory strategies.”

“How can Brushing programs help?”

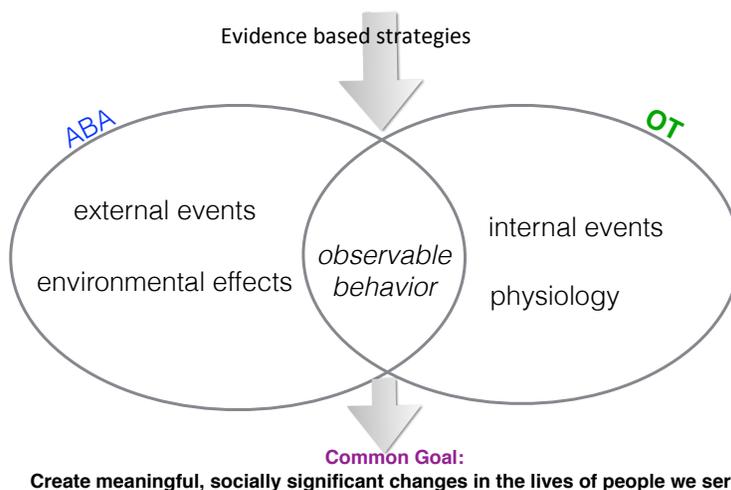
“OT is not evidence based and is simply play therapy.”

“ABA therapy only works for children with Autism.”

CONTINUED

CONTINUED

But we do have a common goal....



CONTINUED

Internalistic vs. Externalistic

OT

- Physical / psychological barrier
- Adaptations/ accommodations
- Consider feelings and emotions
- Consider culture, environment, values & beliefs.

ABA

- Not the child's fault
- Try different ways of teaching
- Never blame the child if learning does not occur
- Change the environment and consequence to change behavior

CONTINUED

CONTINUED Collaboration vs. Confrontation

Importance of Inter-professional Education

- The American Occupational Therapy Association (AOTA) asserts that entry-level occupational therapy curricula should include inter-professional education (IPE) in which students have opportunities to learn and apply the knowledge and skills necessary for inter-professional collaborative practice. To achieve the goals of **improved health outcomes and client experiences**, along with **reduced health care costs**, practitioners must be prepared to contribute to inter-professional care teams.

(Earnest & Brandt, 2014)

CONTINUED

What is ABA?

- ABA is the use of scientific principles of learning and using motivation to teach effectively for skill acquisition, fluency, and maintenance as a means of decreasing problematic behaviors.

(Cooper, Heron, & Heward, 2007)

CONTINUED

Respondent vs. Operant behavior

- Controlled by antecedent in environment
 - Not learned
 - Occurs naturally
 - Un-conditioned
 - Pavlov
 - Reflexive
 - Involuntary
- Controlled by consequence
 - Learning occurs based on consequence that follows
 - BF Skinner
 - Voluntary

CONTINUED

Respondent or Operant behavior?

- Raising hand in class to answer a question?
- Shivering in the cold?
- Stopped by a police officer for speeding?
- Tickle in your throat?
- Walking in hallway?
- Name calling?
- Knee jerk when tapped with hammer?

CONTINUED

CONTINUED

Operant Behavior

- *“All we need to know in order to describe and explain behavior is this: Actions followed by good outcomes are likely to recur, and actions followed by bad outcomes are less likely to recur.”*

(Skinner, 1953)

- Reinforcement vs. Punishment

CONTINUED

Reinforcement

- “when a behavior is followed immediately by the presentation of a stimulus that **increases** the future frequency of the behavior” (Cooper, Heron, & Heward, 2007).
- Positive = add and Negative = take away.
- Negative: when a person's behavior causes something they don't like from happening to be taken away.
- Positive: add or present something that you like into your environment.

CONTINUED

CONTINUED

Different types of reinforcement...

- Susie is given a \$5 bill when she completes a chore.
- Tammy uses a towel to dry her wet hands.
- Joe brushes his teeth on a daily basis.
- Your roommate is loud so its difficult getting to sleep. You start wearing earplugs at night and now you can sleep.
- When the students sit quietly for class, the teacher rewards them by canceling the homework assignment for that night.

CONTINUED

Punishment hurts the punisher

- “when a response is followed immediately by a stimulus change that **decreases** the future frequency of similar responses” (Cooper & Heron, 2007).
- Positive Punishment: Adding extra work when child does not complete their assignment.
- Negative Punishment: Teenager does not do chores, and loses access to phone, Xbox.
- Creates feeling of fear, dislike, and anxiety. (Activates the amgdala)
- Encourages avoidance and finding ways to be sneaky so as not get caught.
- The “*punishment*” might actually be a reinforcer.

CONTINUED

CONTINUED

The 4 functions of Operant Behavior

- Attention (negative or positive): from peers, adults
- Escape: from person, task
- Tangible: desire for an item or activity
- Sensory: the action feels good (self stimulatory) or meets a sensory need

Consequence is the almighty teacher!

CONTINUED

ABC's of Behavior

- **Antecedent**
 - What happens before the behavior occurs
- **Behavior**
 - Observable, measurable, repeatable
- **Consequence**
 - What happens after behavior occurs

CONTINUED



Do you know your ABC's?

The "Can't Do or Won't Do" ABC Data Collection Chart

| When/Where does Behavior occur? | Activity/ Setting | Developmental/Medical consideration | Antecedent | Behavior | Consequence | Future behavior |
|--|--|--|--|--|---|--|
| Date ? Time? Location? of behavior | What activity? Who else was there? Environmental conditions? | Are there any functional limitations to performing this activity? Sensory or physical limitations? Changes at Home? Any Medication changes? Current Health? | What happened right before that may have triggered the behavior? | Describe what the behavior look like? How long did it last? What did you observe the child do? | What happened after the behavior, or as a result of the behavior? Did he/she get Negative attention, Positive attention, Tangible, Sensory, Escape? | Based on the current consequence what's the probability this behavior will continue to increase or decrease? |
| | | | | | | |
| | | | | | | |



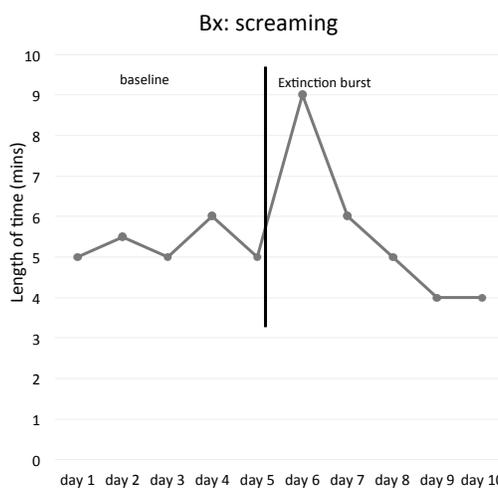
Caution about reinforcers!

- We must use what ACTUALLY is motivating to the child, NOT what we think should be motivating to the child.
- If it does not increase future behavior.....it is not a reinforcer.
- Preference assessments
- Satiation/deprivation



Extinction Burst

- It is a *momentary* increase in behavior which was once rewarded but now the reward is withheld or no longer available.
- **The presence actually indicates that what we are doing is working.**
- Often increases in intensity
- It does not last long



Using ABA principles for therapeutic success!

- Pair yourself as a natural reinforcer.
- Be the Conditioned Fun Person= instructional control
- Plan ahead/contrive situations to create opportunities for reinforcement

CONTINUED

Act like a 'light switch'.

- Shaping behavior
- Differential reinforcement is the reinforcement of one form of behavior and not another, or the reinforcement of a response under one condition but not another.

Appropriate behavior > *inappropriate* behavior

Positive Reinforcement No Reinforcement

CONTINUED

Taking on the challenge for change.....

- Pair yourself as the reinforcing professional on the team.
- Ask to collaborate with ABA's as part of the treatment plan.
- Be research ready.
- Educate them on your role.
- Practice what you preach: collaborate and be professional
- Highlight the pertinent developmental/medical perspectives in OT.

achievement of health, well-being, and participation in life through engagement in occupation (AOTA, 2014)

CONTINUED

Case Study

- Johnny is an 7 yr. old on your OT caseload at school.
- OT goals: handwriting, sensory regulation, class participation

Teacher expresses concern that despite adapting Johnny's math worksheets/ pencil as per your recommendations... He is still not participating in math class. He participates in writing tasks in OT but this is not generalizing this into the classroom.

ABC example chart

| When/Where does Behavior occur? | Activity/ Setting | Developmental/Medical consideration | Antecedent | Behavior | Consequence | Future behavior |
|---|--|--|--|---|---|---|
| <i>Date ?</i> <i>Time?</i> <i>Location? of behavior</i> | <i>What activity? With Whom? Environmental conditions?</i> | <i>Are there any functional limitations to performing this activity? Sensory or physical limitations? Changes at Home? Any Medication changes? Current Health?</i> | <i>What happened right before that may have triggered the behavior?</i> | <i>Describe what the behavior look like? How long did it last? What did you observe the child do?</i> | <i>What happened after the behavior, or as a result of the behavior? Was there Negative attention, Positive attention, Tangible, Sensory, Escape?</i> | <i>Based on the current consequence what's the probability this behavior will continue to increase or decrease?</i> |
| Monday 2/5/18 9 am classroom | Rocket math – writing activity | Yes. Low tone Immature pencil grasp Low endurance with writing. | Presented with math activity | Peter threw his pencil and put his head down on the table. | Teacher stopped the timing said: "Are you feeling ok Peter?" – positive attention and Escape | Continue to increase Recommendation to teacher: ignore his behavior. |
| Tuesday 2/6/18 9 am Classroom | Rocket Math- Writing activity | Yes. Low tone Immature pencil grasp Low endurance with writing | Presented with math activity | Peter threw his pencil and put his head down on the table. | Teacher ignored Peter. He did not finish his math and sat with his head down until music class. - Escape | Continue to increase Recommendation to teacher: do not allow him to escape the task. |
| Wednesday 2/7/18 9 am classroom | Rocket Math- Writing activity | Yes. Low tone Immature pencil grasp Low endurance with writing | Presented with math activity and Teacher said: You need to do your work Peter... or you will have to miss music class. | Peter said " I don't care! I hate math!" he threw his paper, pencil and put his head down. | Teacher ignored him. Peter missed music class | What next? |
| | | | | | | |

CONTINUED

Case Study 2

- Audrey is a 2 1/2 yr. old girl with autism.
- You are her in-home early intervention provider
- Audrey is very fearful of new situations and people. Mom would like to enroll Audrey in a preschool class but is worried about her ability to participate.
- Audrey likes to label letters and numbers and watching alphabet songs on YouTube. She is very averse to touch or being handled.
- Audrey has refused to participate and cried throughout her OT sessions thus far.

CONTINUED

What are some ABA Strategies you can use to help with parent goals?

- Pair your self with a reinforcer – use the sensory profile
- Reserve the special alphabet video for your sessions only.
- Create an ‘if then’ scenario
- Break down goal into smaller increments
- Practice – reinforce- practice-reinforce
- Incorporate OT objectives into session

CONTINUED

Resources/ Questions?

- [Email: draditi@fitlearnersil.com](mailto:draditi@fitlearnersil.com)
- www.Fitlearnersil.com
- www.fluencyinparenting.com

References

- Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). Applied behavior analysis, 2nd ed. Upper Saddle River, N.J.: Pearson Prentice Hall. Martin, G. & Pear, J.
- Earnest, M., & Brandt, B. (2014). Aligning practice redesign and interprofessional education to advance Triple Aim outcomes. *Journal of Interprofessional Care*, 28, 497–500. <http://dx.doi.org/10.3109/13561820.2014.933650>
- Burton, A., & Glennon, T., (2016). Applied Behavior Analysis Practitioner Perceptions: Influence of Occupational Therapy Training in Sensory Processing. *American Journal of Occupational Therapy* ;70(4_Supplement_1):7011505134p1. doi: 10.5014/ajot.2016.70S1-PO3111.
- Brown, S., Myers, C., (2018). Applied Behavior Analysis Practitioner Perceptions: Influence of Occupational Therapy Training in Sensory Processing. *American Journal of Occupational Therapy*; Vol. 70, 7011505134p1. doi:10.5014/ajot.2016.70S1-PO3111
- Shrader, S., Thompson, A., Gonsalves, W., (2010). Assessing student attitudes as a result of participating in an interprofessional healthcare elective associated with a student-run free clinic. *Journal of Research in Interprofessional Education and Practice*. Vol1.3:218-230.
- Baer, D. M., Wolf, M. M., Risley, T. R., (1968). Some current dimensions of applied behavior Analysis. *Journal of Applied behavior Analysis*. Vol1:91-97

References:

- Welch, C., & Polatajko H., (2016). Applied behavior analysis, autism and occupational therapy: A search for understanding. *American Journal of Occupational Therapy*; Vol. 70, 7004360020p1-7004360020p5. doi: 10.5014/ajot.2016.018689
- Roane, H., Fisher, W., Carr, J. (2016). Applied behavior analysis as treatment for autism spectrum disorder. *The Journal of Pediatrics*, 175, 27-32.
- Wong, C., Odom, S.L., Hume, K.A., Cox, C., Fettig, A., Kurcharczyk, S., et al. (2015). Evidence-based practices for children, youth, and young adults with autism spectrum disorder: A comprehensive review. *Journal of Autism and Developmental Disorders*. Doi: 10. 1007/s10803-014-2351-z
- White, H., Stokes, T.F., Simons, E., Longerbeam, M., Richardson, E., & Zinn, T., (2018) Interprofessional practice for simultaneous implementation of merged techniques from three disciplines: OT SLP ABA. *Journal of Interprofessional Education & Practice*. Vol. 12, Pages 1-7
- https://occupationaltherapyot.com/occupational-therapy-frames-of-reference/?fbclid=IwAR2G5_hLEXKszAWPGZIXuf3gQ2QqnpeN1mH8TJ0fP5JIPadBwYabsRlu1So