

Behavior Analysis and Adults with ASD: A Focus on Bigger Skills for Better Outcomes



Educational Partnership
for Instructing Children

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Penn State National Autism Conference
August 9, 2018



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Dr. Gerhardt has an association with the following programs or organizations but receives no compensation for that association. None of the information contained in this presentation is relevant to those associations



ORGANIZATION FOR
AUTISM RESEARCH



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Portions of this presentation were developed in conjunction with Angela Rodriguez, M.A., BCBA

Presentation Notes

In general I try to avoid using the terms "high functioning" or "low functioning" to describe where someone falls on the autism spectrum. The reason is these terms often just describe someone's degree of vocal verbal behavior rather than any actual level of functioning. So instead "high verbal" or "low verbal" will be used, which I think are more accurate.

I also no longer use the word "functional" to describe a particular skill. Instead, I refer to those skills as "applied skills". Why? Because functional is a characteristic of the skill which I cannot control while applied refers to the use of that skill which I can teach and, thereby, control.



Educational Partnership
for Instructing Children

The EPIC School is a private, nonprofit ABA-Based School for 32 individuals with classic autism ages 3-21 years. The Behavior Analytic Mission of the EPIC School is, through individualized evidence-based intervention, graduate students who:

1. Are employed a minimum of 20-hours/week
2. Belong to a social community outside of his or her home
3. Contribute, on a regular basis, to family functioning (e.g., can complete chores).
4. Have a functional and effective communication system
5. Are independent in basic self-care skills
6. Can self-manage their own behavior across multiple environments, and
7. Have a reasonable medical transition plan.

The problem is...

I am not entirely sure how we are going to do this. However, as a behavior analyst who is committed to socially significant outcomes, I don't see where we have any other option. I do, at least, have a good idea how promote better adult outcomes than the current adult outcome research would indicate is standard.



Why This Talk?



When the classroom closes...

The Current Understanding of Transition to Adulthood

Post-21 Outcomes

After analyzing data from the NLTS-2, Roux and colleagues reported **"young adults with autism have a difficult time following high school for almost any outcome you choose - working, continuing school, living independently, socializing and participating in the community, and staying healthy and safe.** To complicate matters, many of these youth begin their journey into adulthood by stepping off a services cliff. Access to needed supports and services drops off dramatically after high school - with too many having no help at."

Roux, AM, Shattuck, P, Raet, JE, Rava, JA & Anderson, KA. (2015) *National Autism Indicators Report: Transition into Young Adulthood*. Philadelphia, PA: Life Course Outcomes Research Program, A.J. Drexel Autism Institute, Drexel University

What did young adults with autism do after high school?

Education 36% Had a job for pay 58% Lived independently 19% Social & Community Participation 76% Access to Services 74% Health and Safety 60%	Accompanied one or more family members 30% Had a job after high school 32% Lived apart from parents 31% Age appropriate 68% Received emotional support 37% Building relationships 47%
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Our Post-21 Research-Base

Shattuck, et al, (2012) conducted a comprehensive literature review regarding original research on services and interventions aimed at supporting success in work, education, independence, and social participation among adults aged 18 and older with an ASD published between 2000 and 2010.



They concluded that the evidence base about services for adults with an **ASD is underdeveloped and can be considered a field of inquiry that is relatively unformed.**

Shattuck, P., et al, (2012). Services for adults with autism spectrum disorders. *Canadian Journal of Psychiatry*, 57, 284-291.

Actual IEP Goals for a 17-year old Male

- | | |
|--------------------------------------|--|
| 1. Brush Teeth | 10. Fix Inside Out Clothes |
| 2. Wash Face | 11. Set Table |
| 3. Shower | 12. iPad Communication |
| 4. Shower Practice with iPad | 13. iPad Responsibility |
| 5. Wash Hands After Using the Toilet | 14. Match Colors |
| 6. Put Shoes On | 15. Match Digital Time to the Hour |
| 7. Put Socks On | 16. Social Skills- Hold Doors |
| 8. Put Shoes Away | 17. Social Skills- Respond to Social Questions |
| 9. Hang/Remove Jacket | |

IEP Goals that Should Have Been Taught When He Was 8

- | | |
|--------------------------------------|--|
| 1. Brush Teeth | 10. Fix Inside Out Clothes |
| 2. Wash Face | 11. Set Table |
| 3. Shower | 12. iPad Communication |
| 4. Shower Practice with iPad | 13. iPad Responsibility |
| 5. Wash Hands After Using the Toilet | 14. Match Colors |
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| 9. Hang/Remove Jacket | |

6 Skills that Should Be Mastered by the Age of 10-Years

1. Independent toileting home and school
2. Independent dressing
3. Independent showering
4. Independent eating using utensils
5. Basic functional communication (i.e., Independent manding of needs) including refusals
6. Family membership skills (e.g., participating in or completing simple household chores).

6 Skills for which instruction should be started before the Age of 10-Years

1. Skill acquisition in dyads and triads
2. Acting upon basic safety discriminations
3. Application of any targeted academic skills to natural environment
4. Self management
5. Acquisition of new skills outside of the classroom and in the community
6. Problem solving/Variable responding

And then there
is this...

ADULTHOOD



"IF YOU'RE NOT TIRED,
YOU'RE NOT DOING IT RIGHT."

The long-term goal of effective ABA-based intervention in ASD is the acquisition of skills necessary to live and work in the community with proper supports.



And then
transition
into this...



The 7 Dimensions of Applied Behavior Analysis...

The 7 Dimensions of ABA

- ✓ **Applied:** Deal with problems of social importance
- ✓ **Behavioral:** Deal with measurable behavior or reports if they can be validated
- ✓ **Analytic:** Require an objective demonstration that the procedures caused the effect
- ✓ **Technological:** Are described well enough that they can be implemented by anyone with training and resources

Baer, D.M., Wolf, M.M., & Risley, T.R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 1, 91-97.

The 7 Dimensions of ABA

- ✓ **Conceptual Systems:** Arise from a specific and identifiable theoretical base rather than being a set of packages or tricks
- ✓ **Effective:** Produce strong, socially important effects
- ✓ **Generality:** Designed from the outset to operate in new environments and continue after the formal treatments have ended

Baer, D.M., Wolf, M.M., & Risley, T.R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 1, 91-97.

Let me take this one step further

While all 7 dimensions of ABA are important, the most challenging dimensions seem to get the least attention. These are:

- ✓ **Applied:** *Deal with problems of social importance.*
- ✓ **Effective:** *Produce strong, socially important effects.*
- ✓ **Generality:** *Designed from the outset to operate in new environments and continue after the formal treatments have ended.*



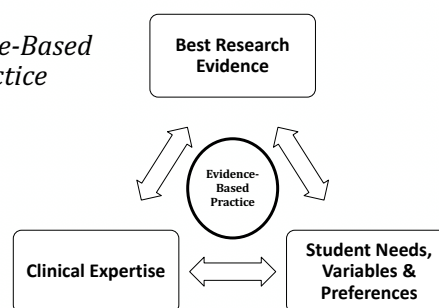
Which means the effective transition from EIBI to Adulthood requires Behavior Analysts to address problems of social importance, in ways that produce strong, socially important effects, by using interventions designed from the outset to operate in new environments and continue after the formal treatments have ended.

But this is, of course, not easy and the reason we are all here today

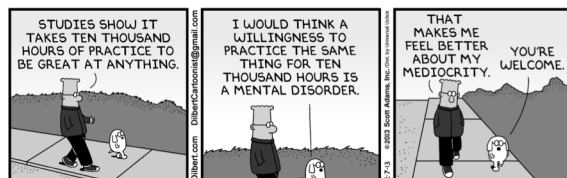


Before we more on, there are a few more items about ABA-based intervention in ASD we need to discuss.

Evidence-Based Practice



For behavior analysts to practice in an evidence-based manner requires knowledge, time, effort, error, and practice. Even then, it can be elusive.



Please note that evidence-based practice in ABA & ASD does not require the development of a set of rigid, unyielding, and unalterable instructions governing interactions. In fact, evidence-based practice in ABA & ASD often requires one to modify interventions in response to a slew of conditions, settings and contingencies while maintaining a commitment to data-based decision-making.

In other words, evidence-based practice in ABA/ASD is a combination science, experience, and a sophisticated understanding of context. In that way, EVP is sort of, well, "zen-like"

The Context of Intervention



Intervention in the most well controlled environment possible...

- Is something for which behavior analysts working in ASD have, apparently, been strongly reinforced for quite some time.
- This is a well established pattern of behavior for which there seems to be little opportunity to reinforce alternative patterns of behavior or, for that matter, a reinforcer with sufficient power to alter this pattern.
- It also seems ABA & ASD is, among behavior analytic fields of intervention, somewhat alone in this pattern.

- Applied Animal Behavior
- **Autism**
- Behavior Analysis and Selectionist Robotics
- Behavior Analysis and Technology
- Behavior Analysis and the Arts
- Behavior Analysis for Sustainable Societies
- Behavior Analysis in Military and Veterans' Issues
- Behavior Analyst Online
- Behavioral Development
- Behavioral Gerontology
- Behavioral Medicine
- Behaviorists for Social Responsibility
- Crime, Delinquency, and Forensic Behavior Analysis
- **Direct Instruction????**
- Dissemination of Behavior Analysis
- Ethics and Behavior Analysis
- Experimental Analysis of Human Behavior
- Gambling
- Health, Sport, and Fitness
- History of Behavior Analysis
- Multicultural SIG: Multicultural Alliance of Behavior Analysts
- Neuroscience
- Organizational Behavior Management Network
- **Pediatric Feeding Disorders????**
- Positive Behavior Support
- Practitioner Issues in Behavior Analysis
- Rehabilitation and Independent Living
- Sexual Behavior: Research and Practice
- SIG Español
- Speech Pathology
- **Standard Celeration Society????**
- Teaching Behavior Analysis
- Theoretical, Philosophical, and Conceptual Issues
- **Verbal Behavior????**

"Behavior analysts often emphasize the need to study the effects of ABA procedures in the context of typical practice settings (e.g., Johnston, 1996). However, reviews indicate that the large majority of our research focuses on interventions delivered by study personnel, usually in tightly controlled environments such as laboratories, specialized ABA classrooms, or distraction-free areas set up to provide one-to-one instruction []. This discrepancy may reflect a dilemma that behavior analysts have had trouble resolving: We recognize that conducting studies in practice settings may require sacrificing some scientific rigor because the primary mission of such settings is to deliver services rather than conduct research (Johnston, 1996), yet we regard the quality of many studies in these settings as unacceptable (Johnston et al., 2006)." (Smith, 2013)

Citations from previous slide

Johnston J. M. Distinguishing between applied research & practice. *The Behavior Analyst*.19, 35–47.

Johnston J. M., Foxx R. M., Jacobson J. W., Green G., Mulick J. A. (2006) Positive behavior support and applied behavior analysis. *The Behavior Analyst*. 29, 51–74.

Smith, T., (2013). What is evidence-based behavior analysis. *The Behavior Analyst*. 36, 7-33.

What about skill mastery?

The mastery of a particular skill is generally understood to have occurred when the individual in question consistently and accurately displays the skill under the conditions likely to require/ elicit the skill.

In ABA & ASD we tend to define mastery as occurring when the target behavior is displayed correctly 90% of the time it is required across 3 opportunities.

Such mastery criterion, while having a certain amount of face validity, (e.g., 90% correct on a math test might equate to a grade of "A") is arbitrary and may not be appropriate for all skill targets.

For example...

Some skills should only be considered mastered if student demonstrates 100% correct responding across presented opportunities. These might include:

- Street crossing
- General safety skills
- Bowel & urine continence
- Menstrual care
- Dressing before leaving the house
- Flying an airplane
- Juggling chain saws
- Other?

In practice, however, there is an expected, if not necessarily accepted, error rate

For example...

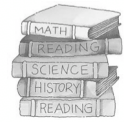
- For other skills, mastery can only be considered when both rate and accuracy are evaluated.
 - The employment standard for data entry, for example, is 11,600 keystrokes/hour at 99.9% accuracy.*
- For some skills, mastery is a function of the individual's ability to access or accept imbedded prompts.



*Source: <http://www.vikingsoft.com/pdf/evaluatingde-isb.pdf>

For example...

- Yet other skills can generally be considered mastered at somewhere above 80% correct responding:
 - Most academic skills
 - Most social skills
 - A variety of leisure skills
 - Etc.
- Some skills can be considered mastered at 30% correct responding:
 - Hitting a curve ball



For example...

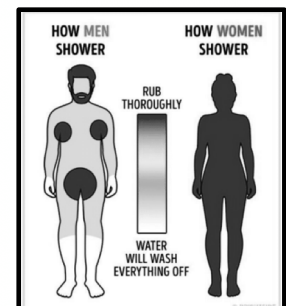
For some skills, including many ADLs, 90-100% correct is desirable **but** this needs to be considered within the context of personal independence.

- Tooth brushing - If the individual independently completes 60% of the steps in the TA but his or her errors are random, can brushing teeth 5 times/day produce the desired outcome in terms of health and hygiene?

Independent of all that, mastery of any skill is significantly more attainable if we target the **simplest, most direct task analysis likely to result in the desired outcome.**

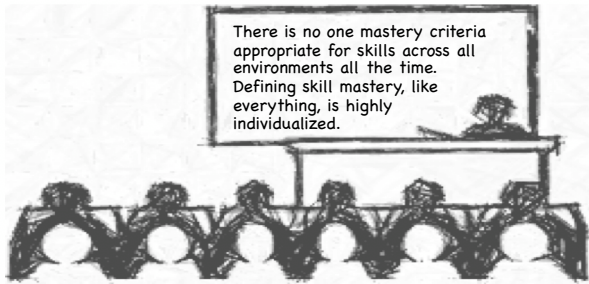


Some skills may even have a gender component to normative mastery.



The moral of the story is:

There is no one mastery criteria appropriate for skills across all environments all the time. Defining skill mastery, like everything, is highly individualized.



Positive Reinforcement

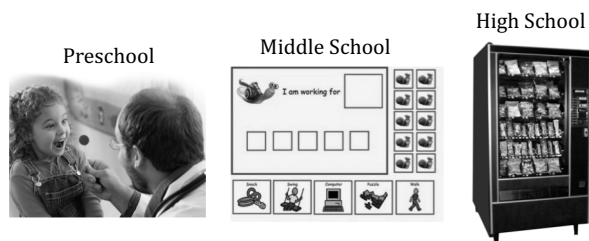


Source: Craig Swanson <http://www.perspicuity.com/>

OPINION

Positive reinforcement (Sr⁺) is the most effective, least well understood and most poorly implemented behavioral intervention we have in ABA & ASD.


Primary Sr⁺ From Preschool to High School




And for Adults...



Delivering Sr⁺ to Adolescents and Adult with ASD Some Dos and Don'ts

- 
 - Incorporate choice and subtly record choices for a more naturalistic preference assessment.
 - Focus more on engagement & less on "stigmatizing" behavior.
 - Increased response effort = Increased power of Sr⁺.
 - Have the individual retrieve the Sr⁺ for his or herself.
 - Identify environmental conditions that act as Sds.
 - Normalize your behavior specific praise.
 - Train community members to deliver behavior specific praise.
 - Teach self-management/self-reinforcement.


 - Do not hand-deliver the reinforcer, whatever it is.
 - Do not, unless absolutely necessary, use a token board.
 - Do not, unless absolutely necessary, use a timer. If a timer is necessary, program a smart phone.
 - Do not use your "high pitched" praise voice.
 - Do not, unless absolutely necessary, use physical contact as a Sr⁺.
 - Do not, unless absolutely necessary, use Sr⁺ that is age inappropriate (e.g., watching Barney).
 - Do not establish demands (e.g., eye contact) that place a distance between the behavior and the Sr⁺.
 - Do not stop thinking about how to do this better.



THE WAY POSITIVE REINFORCEMENT IS CARRIED
OUT IS MORE IMPORTANT THAN THE AMOUNT.

B.F. Skinner
1904-1990

Critical Skills: Identify the most impactful intervention targets



Social Validity and Applied
Behavior Analysis

JOURNAL OF APPLIED BEHAVIOR ANALYSIS
SOCIAL VALIDITY: THE CASE FOR SUBJECTIVE MEASUREMENT
HOW APPLIED BEHAVIOR ANALYSTS SETTING ITS AGENDA
MICHAEL J. WOLF

Application of Social Validity In ABA

"At the same time that I was having to wrestle with the problems of subjective measurement in JABA, my colleagues and I in the Achievement Place Research Project were having some problems with unsolicited subjective feedback on similar issues. Colleagues, editors, and community members were asking us about the behavioral goals that we had chosen for training the teaching-parents and the youths participating in the community-based, family-style, behavioral treatment program at Achievement Place. They would ask us: 'How do you know what skills to teach? You talk about appropriate skills this and appropriate skills that. How do you know that these are really appropriate?'" (Wolf, 1978, p. 206)

Social Validity in ABA

"The suggestion seemed to be that society would need to validate our work on at least three levels:

1. The social significance of the goals. Are the specific behavioral goals really what society wants?
2. The social appropriateness of the procedures. Do the ends justify the means? That is, do the participants, caregivers and other consumers consider the treatment procedures acceptable?
3. The social importance of the effects. Are consumers satisfied with the results? All the results, including any unpredicted ones?

We have come to refer to these as judgements of social validity." (Wolf, 1978, p. 207)

Social Validity in ABA

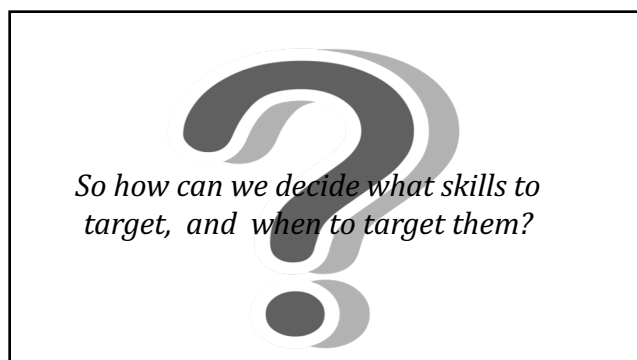
"It is clear that a number of the most important concepts of our culture are subjective, perhaps even the most important. Martin Luther, as the story goes, was severely criticized for setting Protestant [sic] hymns to the popular melodies of songs and dances of the time. He replied, 'Why should we let the devil have all the best tunes?' Well, why should we let the others have all of the best human goals and social problems?" (Wolf, 1978, p. 210)

Application of Social Validity 20 Questions

	Consideration	Response
1	Is the skill derived from a comprehensive and ongoing assessment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2	Is the skill a prerequisite to a more complex, yet important skill (e.g., Letter ID as a prerequisite to Reading)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3	Is the skill one that can be of use across multiple environments?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4	Can the skill be acquired by the student in a reasonable time frame?	<input type="checkbox"/> Yes <input type="checkbox"/> No
5	Is the skill one that will still be useful in 3-5 years?	<input type="checkbox"/> Yes <input type="checkbox"/> No
6	Is the skill one that lends itself to an acceptable degree of instructional intensity?	<input type="checkbox"/> Yes <input type="checkbox"/> No
7	Once acquired, is the skill one the student will use with sufficient frequency that it will be easily maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Application of Social Validity 20 Questions		
	Consideration	Response
8	Is the skill the most direct, simplest way to achieve the desired outcome?	<input type="checkbox"/> Yes <input type="checkbox"/> No
9	Does the skill improve the student's ability to communicate?	<input type="checkbox"/> Yes <input type="checkbox"/> No
10	Does the skill support social inclusion and/or peer relationships?	<input type="checkbox"/> Yes <input type="checkbox"/> No
11	Does the skill ultimately promote independence via adaptive behavior?	<input type="checkbox"/> Yes <input type="checkbox"/> No
12	Does the skill ultimately promote independence via self-management?	<input type="checkbox"/> Yes <input type="checkbox"/> No
13	Does the skill ultimately promote individual safety skill	<input type="checkbox"/> Yes <input type="checkbox"/> No
14	If the skill uses "hi tech" is it the most current tech available?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Application of Social Validity 20 Questions		
	Consideration	Response
15	Is the skill a one that student might find enjoyable?	<input type="checkbox"/> Yes <input type="checkbox"/> No
16	Is the skill one the contributes to the student's health or a healthy lifestyle (e.g., exercise)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
17	Is the skill one that is culturally relevant?	<input type="checkbox"/> Yes <input type="checkbox"/> No
18	Is the skill of importance to the student's family?	<input type="checkbox"/> Yes <input type="checkbox"/> No
19	Is the skill one that has relevance to future employment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
20	Is the skill one that has relevance to future life in the community, outside of the family home?	<input type="checkbox"/> Yes <input type="checkbox"/> No



A working definition of a critical skill

A critical skill is one that:

- Once acquired, enables the individual to independently complete a variety of relevant tasks and engage in desired activities, AND
- Is used with sufficient frequency to remain in the individual's repertoire. The exception here are safety skills which, ideally, are low response frequency skills, AND
- Can be acquired within a reasonable time frame*.

The Essential Eight
(McGreevy, Fry, & Cornwall, 2012)

1. Making requests
2. Waiting after making requests
3. Accepting removals, making transitions, sharing, and taking turns
4. Completing 10 consecutive, brief, previously acquired tasks
5. Accepting 'No'
6. Following directions related to health and safety
7. Completing daily living skills related to health and safety
8. Tolerating situations related to health and safety

McGreevy, P., Fry, T., & Cornwall, C. (2012). *Essentials for Living: A Communication, Behavior and Fundamental Skills Assessment, Curriculum, and Teaching Manual*.

A final, simpler definition of *essential skills* from outside of Behavior Analysis

What you do EVERY DAY matters more than what you do once in a while.

-Gretchen Rubin

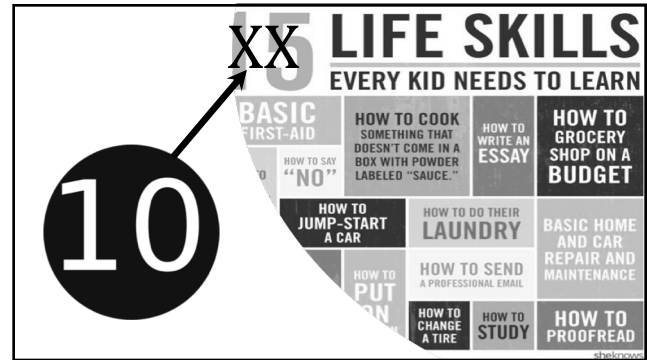
Gretchen Rubin is the author of several books, including the New York Times bestsellers *Better than Before* (2015) and *The Happiness Project* (2009).

Between 5:00AM & 6:00AM, Mon-Fri, I...

- Wake to the alarm clock
- Turn off the alarm clock
- Actually get out bed
- Pee/Flush/Wash hands
- Turn on Keurig
- Take coffee mug out of dishwasher
- Make coffee with Keurig
- Put on a pair of pants.
- Put on a jacket & baseball cap
- Put leashes on the dogs
- Leave apartment/Call for elevator
- Take elevator to 1st Floor
- Exit building and begin walking the dogs



Not all of these skills should be considered essential for everyone but at least some of them would.



Early Intervention

- Ages 0 - 3
- Prior to entering school

Preschool

- Ages 3 - 5
- First years in school

Elementary

- Ages 5 - 10
- Kindergarten - 5th grade

Middle

- Ages 11 - 14
- Grades 6 - 9

Transition

- Ages 14 - 18
- Grades 9 - 12
- Structured Learning Environment begins at 16

Adulthood

- Ages 18 and up
- Ages 18 - 21 continue under IDEA
- 21 and over- Adult services



Critical Skill - Toileting (Bowel and Urine)

Goal - Independent use of a bathroom, when necessary, including locking the door, wiping seat, wiping self (if necessary), washing hands, exiting bathroom and return to "location"



Critical Skill - Dressing

- Goal - Closing door for privacy, independent selection of appropriate clothes, donning clothes in correct order and orientation and checking appearance before opening door and exiting area.

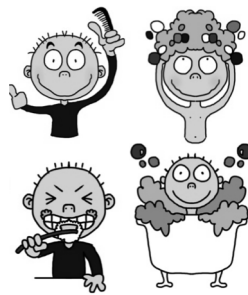


Critical Skill - Independent Eating

- Goal - Able to correctly use all appropriate utensils (knife, fork, spoon) to eat a variety of foods neatly and at a culturally accepted pace.

Critical Skill – Bathing/Self Care

Goal – To demonstrate the ability to independently bathe/shower and complete relevant self care/hygiene skills (e.g., tooth brushing, grooming, etc.)



Critical Skill – Household Participation

Goal – Independent completion of a variety of household chores or, in our field, “ADLs”. The issue is not whether to target these skills but rather, when to target these skills.



Critical Skill – Able to learn in a group

- Goal – To acquire new skills when presented via dyad or triad instruction at a rate of acquisition similar to that documented via 1:1 instruction.

Critical Skill – Self Management



Goal – To demonstrate the ability to identify one's own behavior as either appropriate or inappropriate deliver potential reinforcement in the absence of supervision.

Critical Skill – Problem Solving/Variable Responding

Goal – To demonstrate the ability to offer more than one potential solution when presented with a relevant problem or challenge.



Critical Skill – Maintain Physical Safety

Goal 1 – Demonstrate the ability to identify and avoid potential “non-human” dangers in the immediate environment.

Goal 2 – Demonstrate ability to discriminate between “safe” and “unsafe” people and respond appropriately.

Goal 3 – Demonstrate a reasonable degree of noncompliance when presented with “privacy requests” from an unapproved person.

Goal 4 – Demonstrate ability to participate in healthcare management activities (e.g., doctor or dentist visits).



BST and Safety Skills

Safety skills are important for learners with autism and should be addressed comprehensively over the course of the learner's schooling and across the lifespan. An effective method to teach safety skills is Behavioral Skills Training (BST). BST is a comprehensive teaching method which includes delivering instructions to the learner, modeling the correct response, rehearsing the correct response in both pretend and more naturalistic environments, and delivering feedback to the participant regarding their actions. (Beck & Miltenberger, 2009; Gunby, Carr & LeBlanc, 2010; Johnson et al., 2006) and how to seek assistance when lost (Pan-Skadden et al., 2009).

Error-based learning

- "Learning from errors is one of the basic principles of motor skill acquisition" (Seidler, Kwak, Fling, & Bernard, 2013, p.1)
- Medical training must at some point use live patients to hone the skills of health professionals. But there is also an obligation to provide optimal treatment and to ensure patients' safety and well-being. Balancing these 2 needs represents a fundamental ethical tension in medical education. Simulation-based learning can help mitigate this tension by developing health professionals' knowledge, skills, and attitudes while protecting patients from unnecessary risk. Simulation-based training has been institutionalized in other high-hazard professions, such as aviation, nuclear power, and the military, to maximize training safety and minimize risk (Ziv, et al, 2006).

Seidler, R. D., Kwak, Y., Fling, B. W., & Bernard, J. A. (2013). Neurocognitive Mechanisms of Error-Based Motor Learning. *Advances in Experimental Medicine and Biology*, 762, 1-21.

Ziv, Amotz MD, Weipke, Paul Ross PhD, Smith, Stephen D. MD, Glick, Sharon MD. (2006). Simulation-Based Medical Education: An Ethical Imperative. *Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare*, 1(2), 256.

Critical Skill - Communication

Goal - Demonstrate the ability to make one's wants and needs known to naïve listeners across multiple environments.



Of all the very real barriers to success...



THE STUDENT

Should not be considered one of them!

Closing thoughts

The effective transition from EIBI to Adulthood requires Behavior Analysts to address problems of social importance, in ways that produce strong, socially important effects, by using interventions designed from the outset to operate in new environments and continue after the formal treatments have ended.

"Applied" is what distinguishes ABA from the Experimental Analysis of Behavior (EAB)

- It seems that as a field we have had a multi-decade love affair with the terms "**Behavior**" and "**Analysis**". The term "**Applied**" however has been treated more like a Friend-with-Benefits who we call upon when we think no one is looking.
- Yet the **Applied** aspect of our science needs to be equal in importance to **Behavior** or **Analysis**.
- When our classrooms become indistinguishable from a clinic or research setting we are, perhaps inadvertently, diminishing the relevance and central importance of **Applied** in the development of generalizable skills that are maintained over time.

Don't avoid or ignore risk.
Identify risk and work to reduce its potential impact.



Remember Cooper, Heron & Heward's 3 Questions

When approached with a questionable situation or ethical concerns, behavior analysts should rely on three (3) specific questions (Cooper, Heron, & Heward, 2007).

- What's the right thing to do? – *This, essentially, is a question of values and evidence-based practice and the point where discussion often gets bogged down.*
- What's worth doing? – *This, too, is a question of values as the answer can only be arrived at by assessing personal effort leading to expected client outcome.*
- What does it mean to be a good BCBA? – *This is the question that forms the core of our professional ethics,*

When You Hit the Proverbial Wall, Keep in Mind Cooper, Heron & Heward's (2007) Three Ethics Questions

- What's the right thing to do? – *This, essentially, is a question of values and evidence-based practice and the point where discussion often gets bogged down.*
- What's worth doing? – *This, too, is a question of values as the answer can only be arrived at by assessing personal effort leading to expected client outcome.*
- What does it mean to be a good BCBA? – *This is the question that forms the core of our professional ethics.*

Here's what I know about the future:
it happens as a result of what we do today.

