

2016-17 Autism Speaker Series

**Method Behind the Mystery:**  
 Understanding and Managing  
 Pica and Stereotypic Behavior

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Please visit their tables during the break and after the lecture!

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**METHOD BEHIND THE MYSTERY:**  
 UNDERSTANDING AND MANAGING PICA AND STEREOTYPIC BEHAVIOR

LISA RETTIG, B.A.  
 UNIVERSITY OF HOUSTON-CLEAR LAKE  
 DECEMBER 10, 2016

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**TYPES OF REINFORCEMENT**

**SOCIAL**

- Access to attention
- Access to items
- Escape from instructions or situations

**AUTOMATIC (SENSORY)**

- Feels good
- Relieves discomfort

IWATA, DORSEY, SLIFER, BAUMAN, & RICHMAN (1994)  
 PIAZZA ET AL. (1998)

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## FOR BEHAVIOR THAT PRODUCES SOCIAL REINFORCEMENT

Attention or tangible

**Making Teachable Moments out of Meltdowns for Toys, Treats, and Attention**  
Presented by Kyle Dawson and Christie Stiehl  
Video at <http://prtl.uhcl.edu/autism-center/speaker-series/previous-lecture-materials>

Escape from demands

**Don't Sweat the Hard Stuff: Managing Problem Behavior During Work Time**  
Presented by Channing Langlinais  
February 11, 2017

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## AUTOMATIC REINFORCEMENT

- May seem to occur "out of the blue"
- Nothing in the environment causes the behavior
- Many behaviors fall into this category
  - Eating or drinking
  - Running
  - Pica
  - Stereotypy



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## PICA

A PATTERN OF EATING NON-FOOD MATERIALS  
-MEDLINE PLUS

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### COMMON PICA ITEMS

- Dirt
- Paint chips
- Chalk
- Coffee grounds
- Cigarette butts
- Feces
- Glue
- Hair
- Paper
- Toothpaste
- Soap



KID'S HEALTH (N.D.)

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### WHAT IS KNOWN?

- Can occur in disabled or neurotypical individuals of all ages
- Can be dangerous<sup>2</sup>
  - Lead-based paint chips
  - Sharp objects
- Can lead to nutritional deficiencies<sup>2</sup>
- Can be caused by medical or psychological problems<sup>1,2</sup>



1: KRUCIK (2005)  
2: WEB MD, (N.D.)

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### CONSIDERATIONS BEFORE TREATMENT

- Medical causes (eliminate first)
- Developmental level<sup>1</sup>
- Persistence<sup>1</sup>
- Ingestion of dangerous items
- Frequent ingestion of inedible items



PLEASE CONTACT A BCBA® TO ADDRESS PICA OF DANGEROUS MATERIALS

1: AMERICAN PSYCHIATRIC ASSOCIATION (2013)

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**STEREOTYPY**  
 REPETITIVE MOTOR AND VOCAL RESPONSES  
 -AHEARN, CLARK, MACDONALD, & CHUNG (2007)

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**TYPES OF STEREOTYPY**

<p><b>VISUAL</b></p> <ul style="list-style-type: none"> <li>• Hand flapping</li> <li>• Shaking objects</li> </ul>	<p><b>AUDITORY</b></p> <ul style="list-style-type: none"> <li>• Repeating sounds</li> <li>• Tapping ears</li> </ul>
<p><b>VESTIBULAR</b></p> <ul style="list-style-type: none"> <li>• Rocking</li> <li>• Stomping</li> <li>• Spinning</li> </ul>	<p><b>TACTILE</b></p> <ul style="list-style-type: none"> <li>• Mouthing objects</li> <li>• Rubbing</li> <li>• Scratching</li> </ul>

RAPP & VOLLMER (2005)

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**WHAT IS KNOWN?**

- Part of typical development<sup>3,7</sup>
  - May occur earlier and more in people with autism spectrum disorder (ASD)<sup>2,8</sup>
- Part of diagnostic criteria for ASD<sup>1</sup>
- Believed to occur because the individual enjoys the sensation<sup>6</sup>
  - May also occur for other reasons<sup>4,5</sup>



1: AMERICAN PSYCHIATRIC ASSOCIATION (2013)  
 2: BODFISH, SYMONS, PARKER, & LEWIS (2000)  
 3: FOSTER (1998)  
 4: KENNEDY, MEYER, KNOWLES, & SHUKLA (2000)  
 5: MACE, BROWDER, & LIN (1987)  
 6: RINCOVER (1978)  
 7: TROSTER (1994)  
 8: WATT, WETHERBY, BARBER, & MORGAN (2008)

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## WHEN SHOULD IT BE ADDRESSED?

- Interfering with learning and well-being<sup>2,5</sup>
- Creating social stigma<sup>4,6</sup>
- Affecting family functioning<sup>1,3</sup>

1: BISHOP, RICHLER, CAIN, & LORD (2007)  
2: DUNLAP, DYER, & KOEGEL (1983)  
3: GREENBERG, SELTZER, KRAUSS, CHOU, & ORSMOND (2006)  
4: JONES, WINT, & ELLIS (1990)  
5: PIERCE & COURCHESNE (2001)  
6: WOLERY, KIRK, & GAST (1985)



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## ASSESSMENT FUNCTIONAL ANALYSIS

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## ACCESS TO ATTENTION



IWATA, DORSEY, SLIFER, BAUMAN, & RICHMAN (1994)

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## ESCAPE FROM INSTRUCTIONS



IWATA, DORSEY, SLIFER, BAUMAN, & RICHMAN (1994)

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## ACCESS TO TANGIBLES



IWATA, DORSEY, SLIFER, BAUMAN, & RICHMAN (1994)

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## AUTOMATIC (STIMULATION)



IWATA, DORSEY, SLIFER, BAUMAN, & RICHMAN (1994)

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# TREATMENT

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## PROVIDE A COMPETING STIMULUS

- Identify an item that's better than the behavior
  - Give your learner a variety of items one at a time for a minute
  - Record how often they engage in the problem behavior and if they play with the item
  - Find items that they will play with instead of misbehaving
- When you find an item keep it around all the time



HAGOPIAN, GONZALEZ, RIVET, & CLARK (2011)  
PIAZZA ET AL. (1998)  
PIAZZA, HANLEY, & FISHER (1996)

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Item	Trial 1		Trial 2		Trial 3		Does he/she generally interact with the toy? If your child interacted with the item 2 or 3 of these trials, mark Yes	TOTAL PB
	Item Inter	PB	Item Inter	PB	Item Inter	PB		
1) Example Music Toy	Y/N	0	Y/N	III	Y/N	III	Y/N	7
2) Ball	Y/N	IIIIII	Y/N	IIIIII	Y/N	III	Y/N	18
3) Book	Y/N	III	Y/N	I	Y/N	0	Y/N	4

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## BLOCK

- Block when the learner is picking up potential pica items or putting them in his mouth
- Block when the learner begins engaging in stereotypy

HAGOPIAN, GONZALEZ, RIVET, TRIGGS, AND CLARK (2011)  
 MCCORD, GROSSER, IWATA, & POWERS (2005)  
 WINTON & SINGH (1983)

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## REINFORCE MORE APPROPRIATE BEHAVIOR

- Teach the learner to engage in more appropriate behavior  
     -Play                                      -Social
- Reward the learner when he engages in more appropriate behavior
- Redirect the learner to engage in the appropriate behavior

AHEARN, CLARK, MACDONALD, & CHUNG (2007)                      LEE, ODOM, & LOFTIN (2007)  
 HAGOPIAN, GONZALEZ, RIVET, TRIGGS, & CLARK (2011)       PIAZZA, HANLEY, & FISCHER (1996)  
 KERN, KOEGEL, DYER, BLEW, & FENTON (1982)                POWERS, THIBADEAU, & ROSE (1992)  
 LANG, KOEGEL, ASHBAUGH, REGESTER, ENCE, & SMITH (2010)

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## TREATMENT PICA

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## SET UP A SAFE ENVIRONMENT

- Place toxic materials out of reach and locked away
- Scan and clear out each new environment upon entering
- Keep an eye on the learner as much as possible
  - If you are unable to watch the learner for a period of time, ensure that he is in a safe location
- Notify day care and friends




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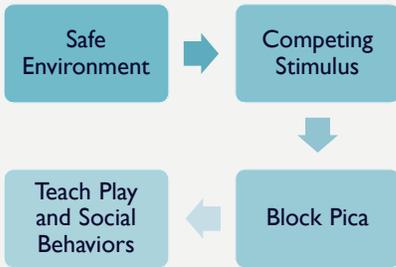
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## SELECTING TREATMENT FOR PICA




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## TREATMENT STEREOTYPY

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## ENCOURAGE EXERCISE

- Have your learner exercise throughout the day
  - May replace sensory input
  - May help tire them out



MORRISON, ROSCOE, & ATWELL (2011)

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## TEACH APPROPRIATE SETTINGS

- Stereotypy is not always inappropriate
- Teach your learner when it is appropriate
- Only apply treatment to times that it is inappropriate
- Redirect your learner to appropriate location



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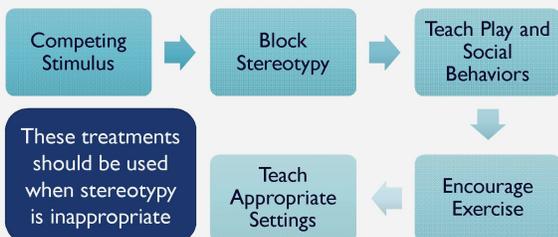
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## SELECTING TREATMENT FOR STEREOTYPY



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### KEY POINTS TO REMEMBER

- Pica and stereotypy often occur for sensory reasons
  - This is not always the case
- There are many ways to treat pica and stereotypy
  - Use the decision-making flowchart provided to determine which might be best
- Contact a BCBA for dangerous behaviors or if these suggestions don't work




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