

Exercise As An Evidence Based Practice for

Individuals with Autism Spectrum Disorders

Presented by Michelle Antle, Ed.S.

Field Training Coordinator

LOUISVILLE Kentucky Autism Training Center



• Participants will learn the components of an effective exercise intervention plan.

• Participants will learn the importance of using exercise to intervene in an appropriate and positive way to address a wide variety of behaviors.

• Participants will learn how to teach students with ASD how to use exercise to become healthy and productive.

UNIVERSITY OF

LOUISVILLE.

KENTUCKY AUTISM .

**Quality Program Indicators**



The NPDC has identified 27 Evidence-Based Practices

• Evidence-Based Practice Briefs

[• http://autismpdc.fpg.unc.edu/evidence-based-practices](http://autismpdc.fpg.unc.edu/evidence-based-practices)

• The center is currently developing a new online resource, Autism Focused Intervention Resources and Modules (AFIRM) that will host self-paced e-learning modules for each of the EBPs.



**LOUISVILLE Kentucky Autism Training Center**

Criteria for Qualification as an Evidence-Based Practice:

• At least two high quality experimental or quasi-experimental group design articles

- Conducted by at least two different researchers/research groups

OR

• At least five high quality single case design articles

- Conducted by at least three different researchers/research groups

- Having a total of 20 participants across studies

OR

• A combination of at least one high quality experimental or quasi­ experimental group design article and at least three high quality single case design articles

- Conducted by at least two different research groups

THE NATIONAL PROFESSIONAL DEVELOPMENT CENTER ON



AUTISM SPECTRUM DISORDERS

UNIVERSITY OF

LOUISVILLE.

KENTUCKY AUTISM .

l.OUE1SVILLE. Kentucky Autism Training Center



Increase in physicaI exertion as a means of reducing

problem behaviors or increasing appropriate

behavior.

THE NATIONAL PROFESSIONAL DEVELOPMENT CENTER ON



AUTISM SPECTRUM DISORDERS

UNIVERSITY OF

LOUISVILLE.

KENTUCKY AUTISM .

LOUISVILLE Kentucky Autism Training Center



• Self-stimulatory behaviors

• Hyperactivity

• Aggression

• Self-Injurious behaviors

• Depression

• Anxiety

• Gastro-intestinal issues

• Attention issues

• Obesity



• Fine and gross motor skills



• Sensory Processing

• Coordination and Planning

• Slow Reaction Times

• Visual Tracking

**l.OUE1SVILLE. Kentucky Autism Training Center**

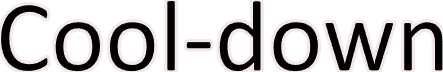


• Types of Exercise

-Programmed & Structured Activities

• **Aerobic exercise**

• Strength training



**LOUISVILLE Kentucky Autism Training Center**

UNIVERSITY OF



• Exercise routine on daily basis reduced a variety of challenging behaviors to zero or near zero levels



• 20 minute exercise routine; 2 times per day (start of day; after lunch}

- Jumping on trampoline

- Scooter boards

- Jogging

- Stretching

- Arm curls with weights

• 1minute exercise breaks once per hour

- Yoga poses

- Jogging in place

Cannella-Malone, Tullis, Kazee

(2011)

UNIVERSITY OF

LOUISVILLE.

KENTUCKY AUTISM .



• Increased physical health



• Helps build in structured breaks and time for exercise during the day

• Teaches exercise as a coping skill

• Increases motor functioning

• Social implications

• Promotes self-esteem

l.OUE1SVILLE. Kentucky Autism Training Center



• Never use exercise as a punishment



• Make sure to include as a part of daily routines

• Highly repetitive is GOOD!

UNIVERSITY OF

LOUISVILLE.

KENTUCKY AUTISM .

**l.OUE1SVILLE. Kentucky Autism Training Center**



AutismClassroomNews.com Acknowledgements to Christine Reeve

**Kentucky Autism Training Center**



**Kentucky Autism Training Center**



AutismClassroomNews.com Acknowledgments to Christine Reeve



**l.OUE1SVILLE. Kentucky Autism Training Center**



LOUISVILLE Kentucky Autism Training Center



• Crawl under chairs

• Log roll across pillows

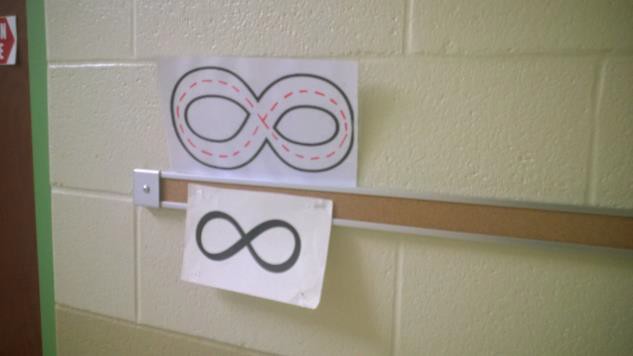
• Walk a balance beam of duct tape

• Throw a ball in a basket

• Walk with a bean bag on your head



A Classroom Example



**LOUISVILLE Kentucky Autism Training Center**

Other Ideas:

[• http://www.yourtherapysource.com/cap.html](http://www.yourtherapysource.com/cap.html)



**CLaSsrooM Act.V't**

**posters**

**LOUISVILLE Kentucky Autism Training Center**

UNIVERSITY OF



[• http://www.autismcIa ssroomnews.com](http://www.autisminternetmodules.org/)

• Cannella-Malone, Tullis, & Kazee {2011}. Using antecedent exercise to decrease challenging behaviors in boys with developmental disabilities and an emotional disorder. *Journal of Positive Behavior Interventions,* 13{14}, 230-239.

• Wong, Odem, Hume, Cox, Fettig, l<ucharczyk, Brock, Plavnick, Fleury, & Schultz

{2014}. *Evidence-based Practices for Children, Youth,* & *Young Adults with ASD.* Autism Evidence-based Practice Review Group. Frank Porter Graham Child Development Institute, University of North Carolina at Chapel Hill.

[• http://www.yourtherapysource.com/cap.html](http://www.yourtherapysource.com/cap.html)



**Center contact info:**

Telephone: (502) 852-4631

Fax: (502) 852-7148 E- mail:

[katc @ louisville.eu](mailto:katc@louisville.edu) https://louisville.edu/e ducation/kyautismtrai ning

**Kentucky Autism Training Center**

**Field Training Coordinators**

Contact us…..

Michelle Antle

[Michelle.Antle2@ky.gov](mailto:Michelle.Antle2@ky.gov)

(270) 792-7840

Laura Ferguson [Laura.ferguson@louisville.edu](mailto:Laura.ferguson@louisville.edu) (502) 852-6403

Kim Howard [Kimberly.Howard@KEDC.org](mailto:Kimberly.Howard@KEDC.org) (606) 316-6011