

# CREATING HEALTHIER, MORE RESILIENT KIDS THROUGH RECESS (OUTDOOR PLAY)

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# GOALS FOR THE WEBINAR

- **State of the Nation – children & adults**
- **Benefits of Recess**
- **Why unstructured, outdoor play?**
- **What is LiiNK?**
- **LiiNK results for the past eight years**
- **What's next? What can you do?**

# STATE OF THE NATION

- **10-20 million children and adolescents in the United States have some form of chronic illness or disability**
- **133 million (45%) adults have at least one chronic illness**
- **18-22% of children & adolescents are obese; 40% overweight/obese**
- **69% of our nation's adults are overweight or obese**
- **D3 deficiencies as early as 1-6 months through older adults**
- **Sedentary lifestyle is common in children and adults**
- **Stress and anxiety disorders are at an all time high (31.9% in adolescents; 1 out of 7 children)**
- **Anxiety is the most common mental disorder, affecting 40 million adults in the U.S. population**
- **Indoors at least 6 hours per school day (9 mos of year)**
- **Socialization is minimal**
- **Technology addictions (37% teens; 330 million adults)**

Pre-test

9 Months Later





**GET OUT OF YOUR CHAIR. NO,  
REALLY.**

**ACCORDING TO THE CDC,  
PROLONGED SITTING IS THE #1  
CONTRIBUTOR TO CHRONIC  
DISEASES, WITH NEGATIVE  
EFFECTS BEGINNING AFTER  
JUST ONE HOUR OF SEDENTARY  
BEHAVIOR.**

**[HTTP://HOME.UTILIFIT.COM/WHY-  
UTILIFIT/](http://home.utilifit.com/why-utilifit/)**



**Just one hour of sitting is as  
unhealthy as smoking two  
cigarettes.**

**All the latest research points  
to a single direction...**

**Sitting is the New Smoking**

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5

# PLAY EMOTIONS

## DR. PETER GRAY

### When play is missing:

- **Rise in narcissism**
- **Extrinsic control**
- **Others directed**
- **Lack of direction**
- **Anxiety/stress**
- **Internal struggles**
- **Void of self**

### When play is available:

- **Self-controlled**
- **Self-directed**
- **Intrinsic control**
- **Rise in empathy**
- **Calm/Relaxed**
- **Failure is part of growth**
- **Peace with self and identity**

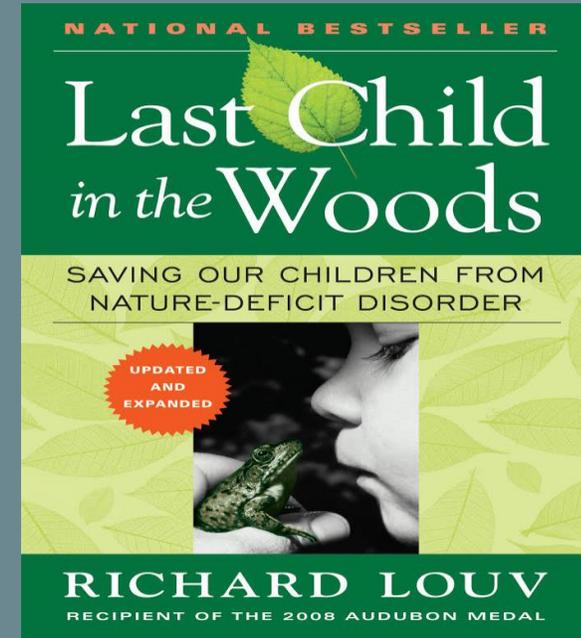
# PROPERTIES OF CHILD'S PLAY

- Purposeful
- Self-directed
- Voluntary
- Inherent attraction
- Freedom from time
- Diminished consciousness of self
- Improvisational potential
- Continuation desire



# NATURE DEFICIT DISORDER

- **Target Focused vs Field Focused (ADHD)**
- **Stress response – relaxed state**
- **Hormone: D3**
- **Eyes/colors**
- **Weather variety – fresh air**



# D3

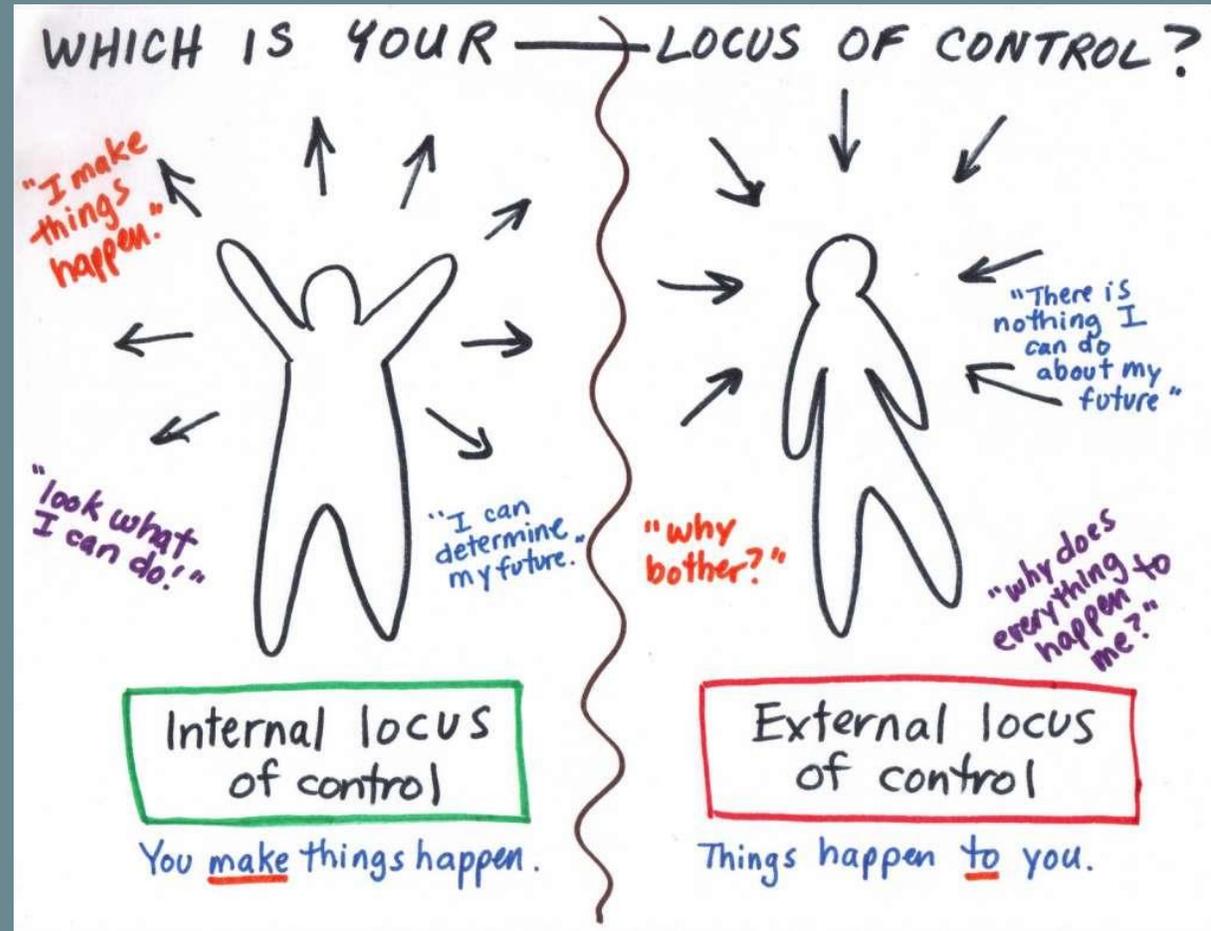
## What is it & Why do we need it

- **Hormone that needs the sun**
- **Immune system builder**
- **Stress reducer**
- **Fights chronic diseases**

## How do we get it naturally?

- **From the sun**
- **Best time – 10-2**
- **15-20 minute segments**
- **All weather conditions**
- **Best location - Between elbow and wrist**

# LOCUS OF CONTROL



# WHAT IS LIINK?



**Bridging the gap between  
academics and the whole child**



# **ABOUT US**

**LIINK PROJECT BEGAN 2012**  
**2022: TWELVE SCHOOL DISTRICTS**  
**(42 SCHOOLS)**  
**TEXAS, OKLAHOMA, MICHIGAN**



- **LiiNK schools:**
  - 60 minutes of outdoor, unstructured play daily
  - Not removed for punishment or tutoring
  - Character lessons daily
- **Control Schools:**
  - 15-30 minute recesses daily
  - Less recess due to weather (LiiNK 13 TO 103) and tutoring/discipline issues

# LIINK BREAKS



*Let's Inspire Innovation 'N Kids*

- **Timer**
- **Unplugged**
- **Outdoors**
- **Bathroom on the way out**
- **15 total minutes each time outdoors**
- **Reminders of what to do when coming back in**

# **SAMPLE SCHEDULE PROFESSIONAL DEVELOPMENT**

**9:00-9:45**

**BREAK**

**10:00-10:45**

**BREAK**

**11:00-11:45**

**LUNCH**

**12:45-1:30**

**BREAK**

**1:45-2:30**

**BREAK**

**2:45-3:30**

# **SYNCHRONIZE YOUR PHONES**

**9:45**

**10:45**

**1:30**

**2:30**

# CHILDREN LEARN HOW TO LEARN THROUGH PLAY

1910



2022



# **OFF-TASK BEHAVIORS AND SOCIAL SKILLS 2014-PRESENT**

- **Off-task behaviors decrease by 40% on average in the first year (60 minutes vs 20 minutes)**
- **No gender or grade level differences among intervention students**
- **Creativity is improved through multiple recesses**
- **Empathy increases, bullying decreases on the playground at intervention schools**
- **Socialization significantly improved between students at intervention schools**

# POSITIVE EMOTIONS – NOT POSITIVE EMOTIONS

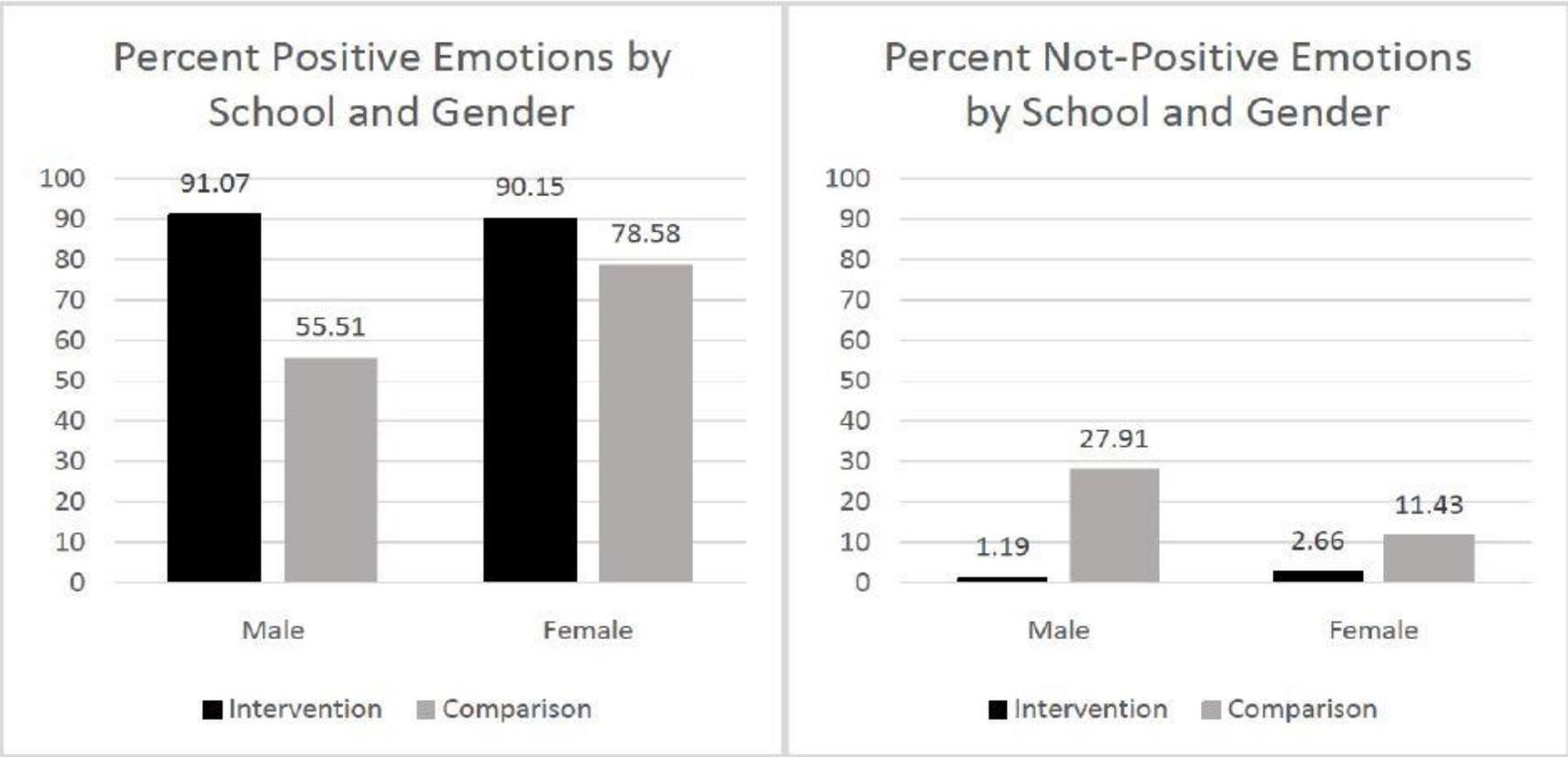


Figure 1: Emotion type by school and gender.

# ATTENTIONAL FOCUS

- **Ability to attend in class significantly improved**
- **Transition from recess to classroom creates better focus**
- **Grade level does not predict attentional focus when multiple recesses are scheduled**
- **Important content can be taught in the morning or afternoon**

# STRESS/ANXIETY CORTISOL LEVELS DURING COVID AUG-NOV 2021

**N=64 (C)**

**N=66 (I)**

**Cortisol Natl Avg :**

**9 yrs=6.7mg**

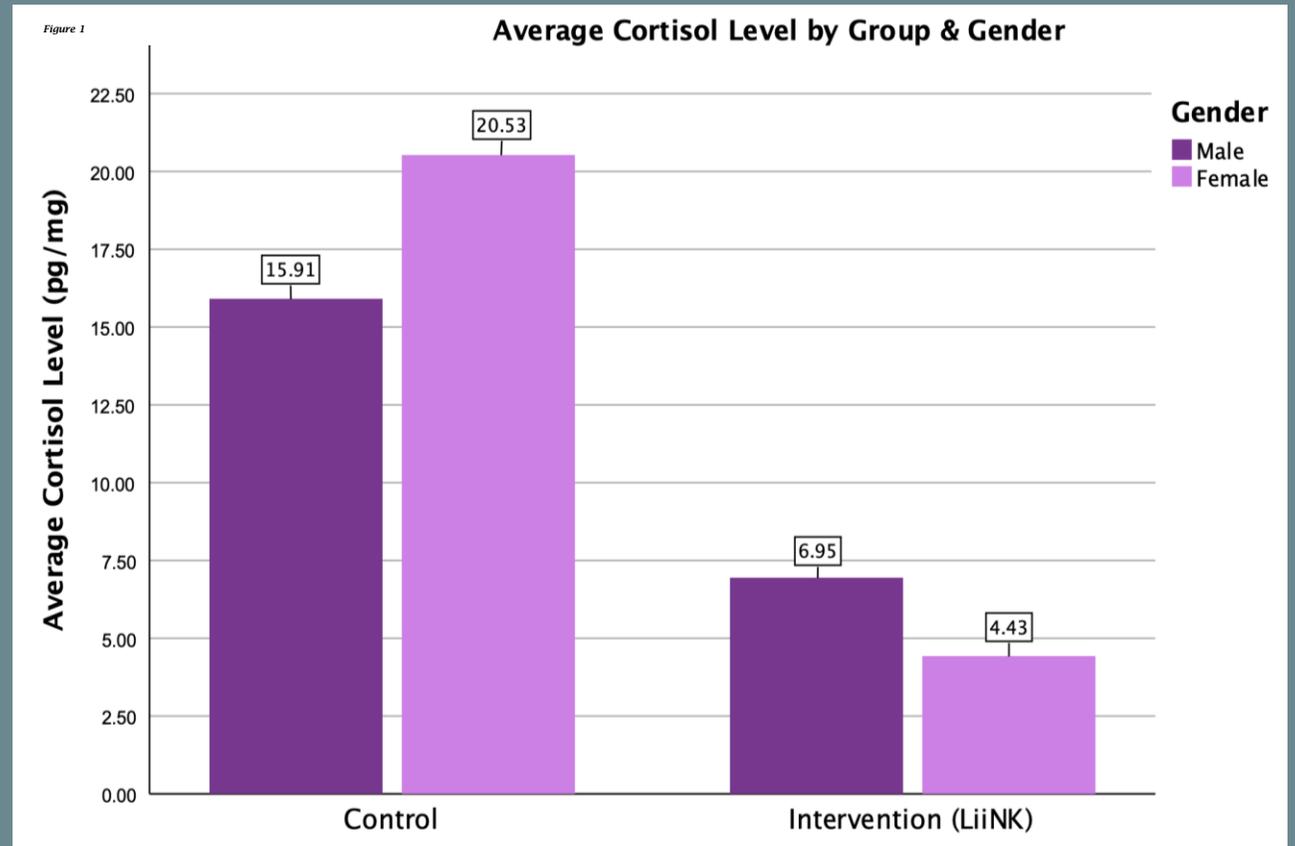
**10yrs=8.5mg**

**LiiNK Males 6.95**

**LiiNK Females 4.43**

**Control Males 15.91**

**Control Females 20.53**



# STRESS/ANXIETY CORTISOL LEVELS AFTER COVID AUGUST-NOVEMBER 2021

**N=64 (C)**

**M=35**

**F=29**

**N=66 (I)**

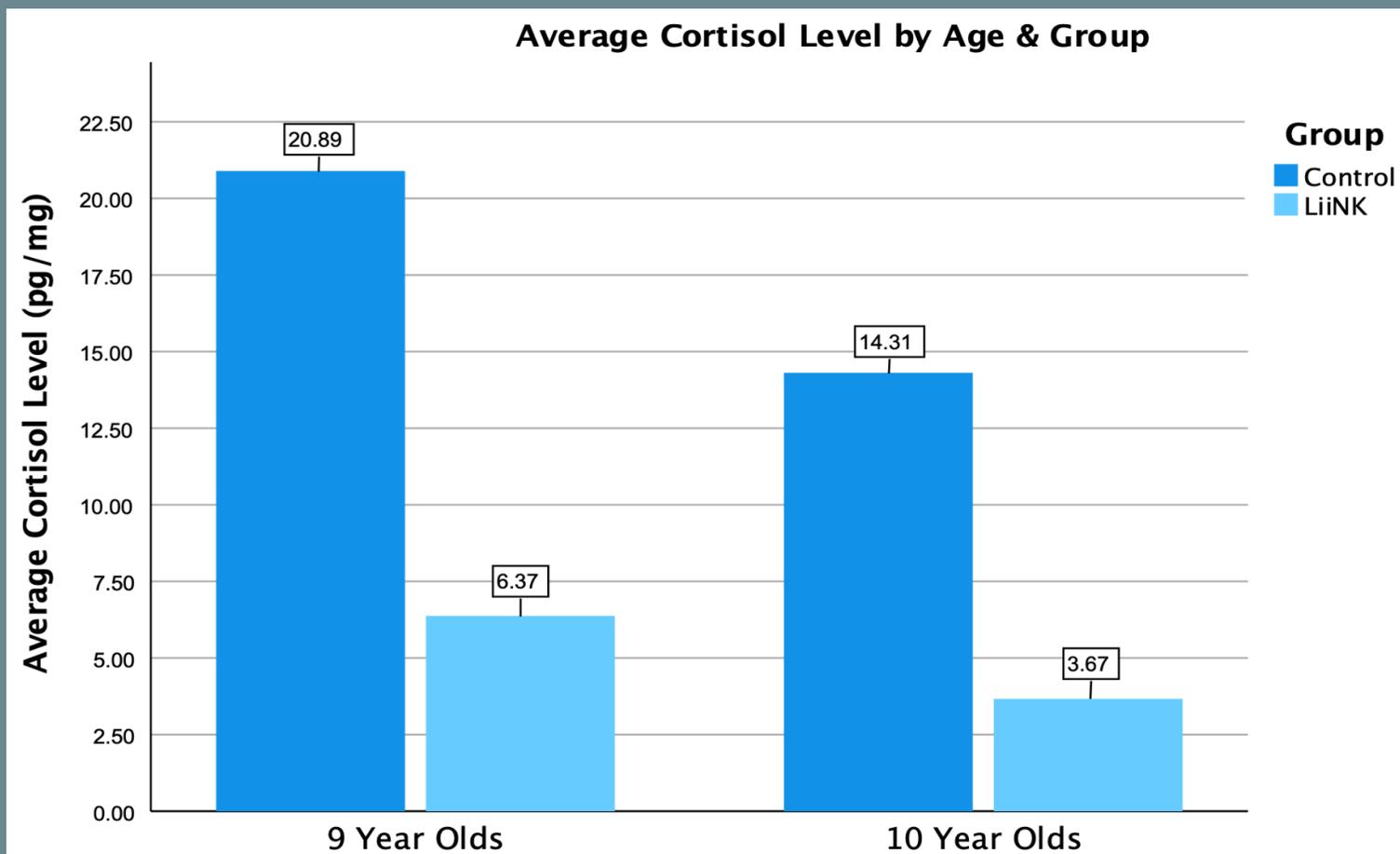
**M=31**

**F=35**

**Cortisol Natl Avg**

**9 yrs=6.7mg**

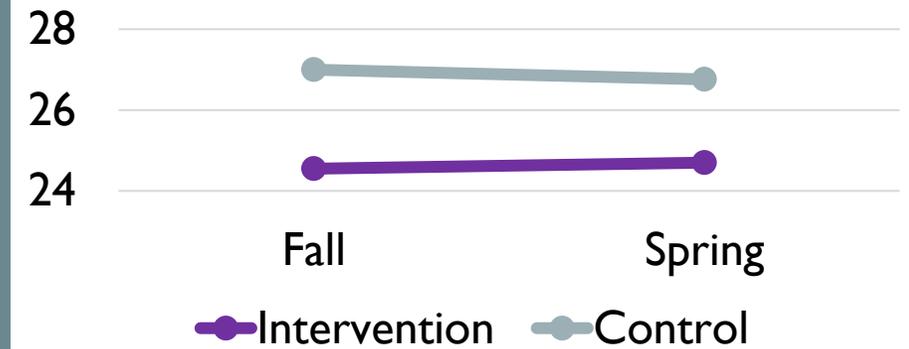
**10yrs=8.5mg**



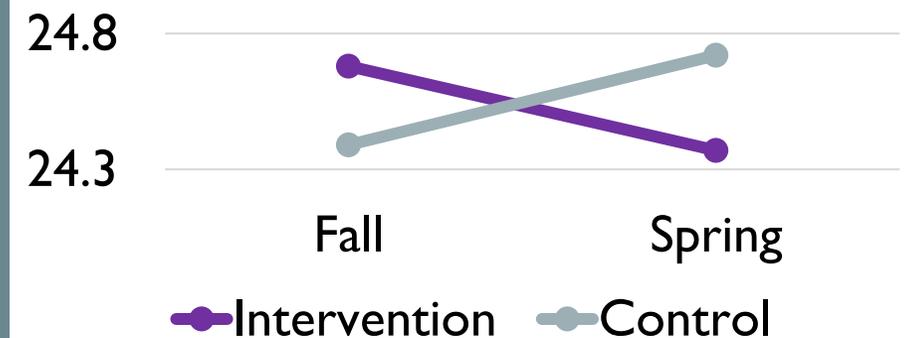
# BODY FAT % CHANGE IN ONE YEAR – 60 MINUTES OF RECESS



## 3rd Grade-BF%



## 4th Grade-BF%



# PLAY PROMOTES GROSS MOTOR SKILLS



# PROMOTES POSTURAL BALANCE AND MOTOR COMPETENCE



Balance Beam

Single Leg Hop



Lateral Jump

Sideways Step



# PLAY PROMOTES FINE MOTOR SKILLS



# Movement Patterns

## UNILATERAL



# MOVEMENT PATTERNS

## Bilateral



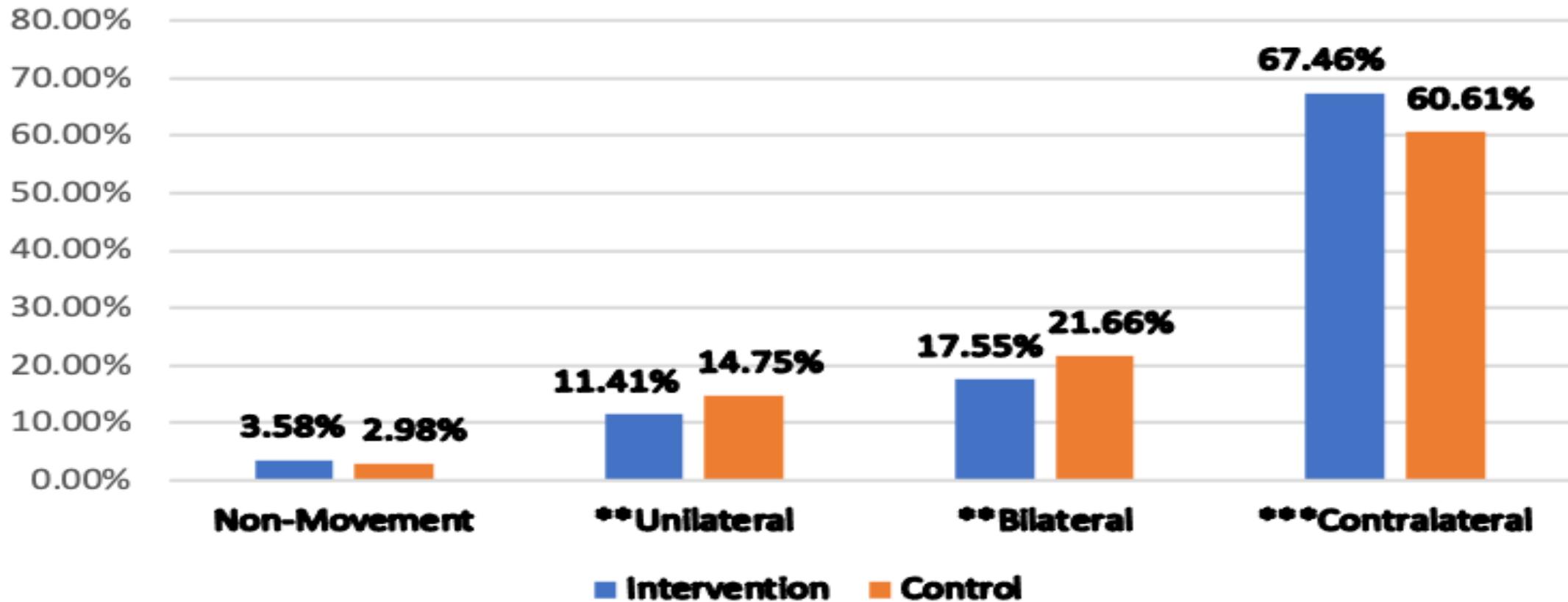
# MOVEMENT PATTERNS

## Contralateral



# RESULTS

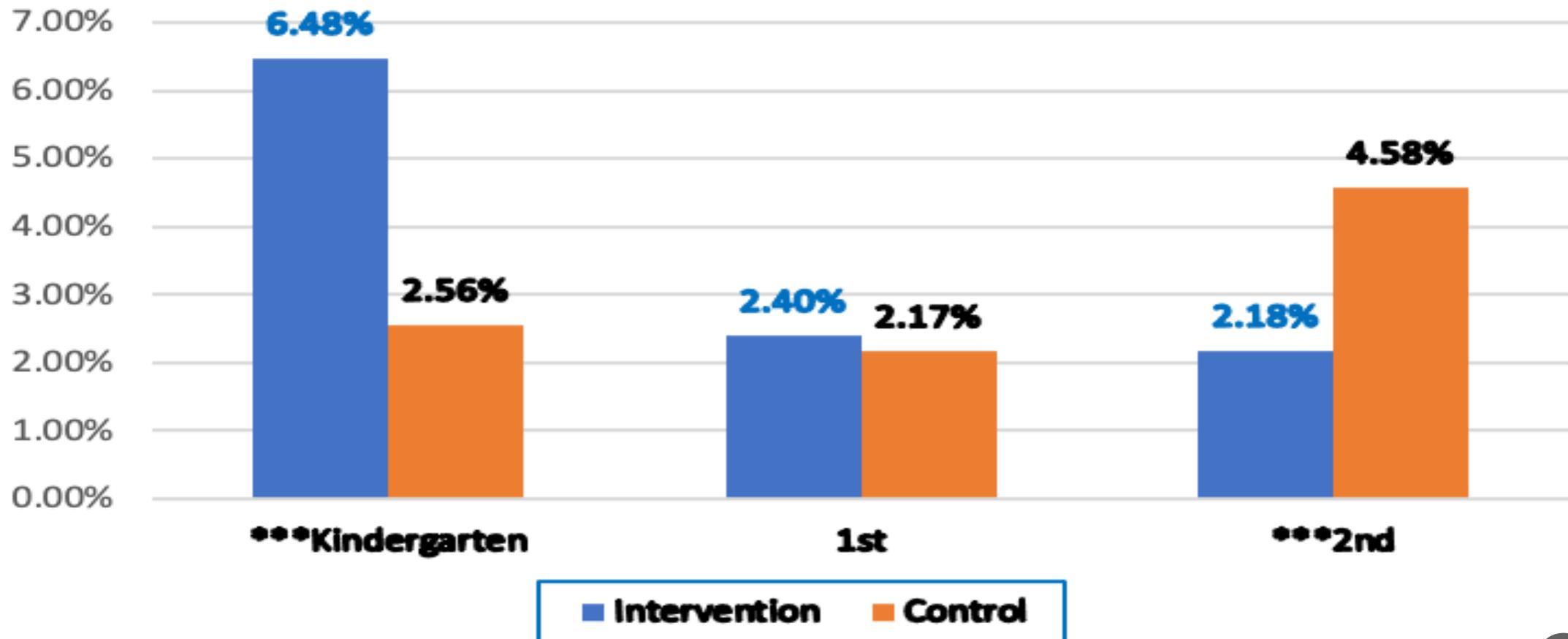
## Total Movements Observed



\*p = 0.05, \*\*p < 0.01, \*\*\*p < 0.001

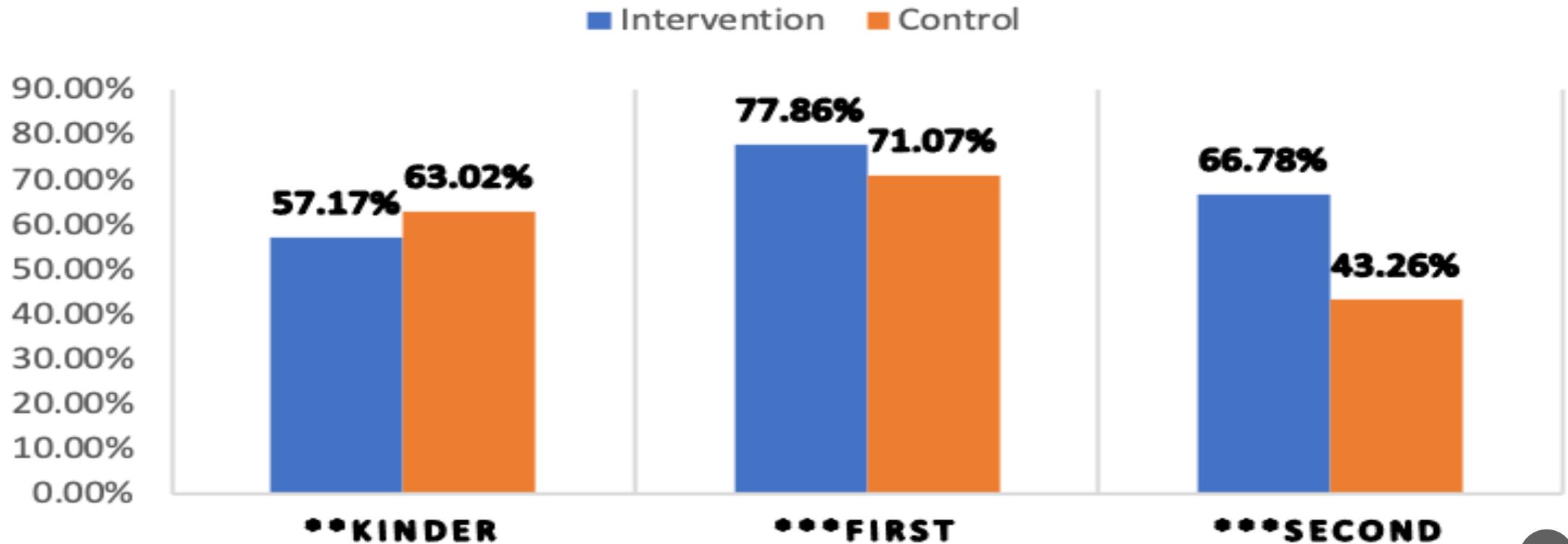
# RESULTS

## Non-Movement Observed



# RESULTS

## CONTRALATERAL MOVEMENTS ACROSS GRADE LEVELS



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32

# LIINK<sup>®</sup> RESULT SUMMARY

- **Only takes one day to play independently**
- **Children run, chase, roll, jump, climb, and swing**
- **Play differently**
- **Socialize differently**
- **They are happy & less anxious**
- **Don't need massive equipment**
- **Need hills, water, sand, and natural equipment such as trees, stumps, and beams**
- **Adults need breaks too**

# RECESS POLICIES

No recess policy has all of these items

Michigan Charter School is following these principles

- Unstructured, outdoor play (recess)
- Each recess should be 15 minutes at least twice daily
- Cannot remove for punishment or tutoring
- Recess should count as content minutes
- Recess minutes should be separate from physical education minutes



# LACK OF LOOSE PARTS FOR KIDS

- **Hula hoops**
- **Plastic connecting pipes/pieces**
- **Mesh Frisbees**
- **Jump ropes**
- **Crawl-through tunnels**
- **Buckets**
- **Sand/Shovels/scoops**
- **Pool noodles**
- **Cardboard boxes**

- **Music**
- **Pots, pans, utensils, small hibachi type grill**
- **Odds & ends tools; nuts & bolts; small wood boards**
- **Puppets (sock puppets great option!)**
- **Clothing, hats, shoes for make believe**
- **Bubbles, playdough, chalk**
- **Legos, blocks**

# MAKING UNSTRUCTURED PLAY A PRIORITY TAKES INTENTIONAL PLANNING

- **What is one thing you, your school, or your work place can do right now to bring play/breaks into the day?**

**START EARLY, NEVER QUIT**  
**START LATER, STAY WITH IT**

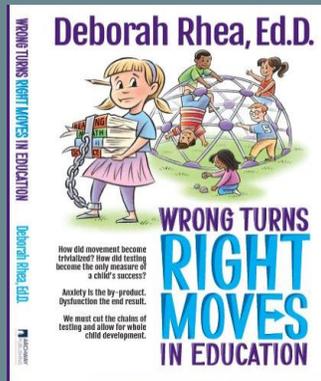


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# Thank-You!



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