Anxiety and Learning Disabilities: Co-Morbidity of Learning Disabilities and Mental Health

Anthony Folino, Ph.D., C.Psych

London Region Learning Disabilities Symposium

Folino © 2017
Note: Please do not disseminate the contents of this presentation without the explicit consent and authorization of Anthony Folino.

Note: To ensure effective implementation of the knowledge and strategies discussed in this presentation, it is recommended that parents and school teams consult with the Psychology Service staff member assigned to the child’s school.
History of Learning Disabilities

Key Considerations
History of Learning Disabilities

- April 6, 1963
  - “Exploration Into the Problems of The Perceptually Handicapped Child”

“Behavioural Diagnosis and Remediation of Learning Disabilities”

Credited for coining the term Learning Disability

“Father of Special Education”

Dr. Samuel Kirk
Learning Disabilities
Diagnostic Procedures
Legislation
Theories
Educational Practices
Remediation
Research
Mental Health and Learning Disabilities

Prevalence Rates
How Common Are Mental Health Problems In Children and Youth?

- In Ontario, approximately 1 in 5 children and youth under the age of 19 have a mental health problem (Children’s Mental Health Ontario)
  - Approximately 20% of students in a typical classroom
Prevalence Rates of Learning Disabilities

• Estimates suggest that between 5 and 10% of Canadians have a learning disability (*LDAO*).
Learning Disabilities and Comorbidity

• Individuals with a LD are at increased risk for co-morbid (or co-occurring) disorders.

**Neurodevelopmental Disorders**
- ADHD
- Communication Disorders
- Developmental Coordination Dis.
- Autism

**Mental Health Disorders**
- Anxiety
- Depression
- Bipolar Disorder
Anxiety & Learning Disabilities
Learning Disabilities and Anxiety Disorder

Sample:
• 448 patients aged 7 to 16 years of age with a diagnosis of a learning disability

Key Findings:
• Anxiety disorder was found in 28.8% of the sample
Learning Disabilities and Anxiety: A Meta-Analysis

Jason M. Nelson¹ and Hannah Harwood²

Abstract
This article presents the results of a meta-analysis of the empirical literature on anxious symptomatology among school-aged students with learning disabilities (LD) in comparison to their non-LD peers. Fifty-eight studies met inclusion criteria. Results indicate that students with LD had higher mean scores on measures of anxiety than did non-LD students. The overall effect size was statistically significant and medium in magnitude (d = .61) although substantial heterogeneity of results was found. Moderator effects were examined for informant type, gender, grade, publication status, and identification source. Informant type (i.e., self-, parent, or teacher report) explained a significant amount of variability in the sample of studies, and identification source (i.e., school identified or special school and clinic/hospital identified) approached statistical significance. Implications for assessment and intervention are discussed.

Study Design:
• Meta-analysis - 58 studies examining the relationship between anxious symptomatology among school-aged students with LD and non-LD.

Key Findings:
• Approximately 70% of students with a LD experience higher anxious symptomatology than do non-LD students.
Anxiety and Learning Disabilities

Theoretical Explanations

Primary Disorder Theory
(Spreen, 1989)

High Levels of Anxiety

Learning Disabilities
Secondary Reaction Theory
(Spreen, 1989)

Learning Disabilities

High Levels of Anxiety
Cerebral Dysfunction Theorists
(Spreen, 1989)

LD and anxiety have common brain-based etiology, and therefore, frequently co-occur.
Impact of Anxiety in the Classroom

- Impact on performance
- Impact of learning
- Impact on behaviour
Does Anxiety Impact Performance?

Yerkes- Dodson Law – 1908 (Inverted U Theory of performance)

![Graph showing the relationship between Anxiety/Arousal/Stress/Fear and Performance.
High Anxiety/Arousal/Stress/Fear leads to Low Performance.]

Low

High

Low

High

Anxiety/Arousal/Stress/Fear

Performance
Does Anxiety Impact Performance?

Yerkes- Dodson Law – 1908 (Inverted U Theory of performance)
Does Anxiety Impact Learning?

- Studies have shown that anxiety impacts learning by:
  - Disrupting attention, focus, and concentration
  - Disrupting efficient information processing
  - Increasing feelings of frustration and discouragement
  - Gaps in learning due to higher levels of absenteeism
  - Students not being able to engage because of somatic complaints (e.g., headaches, stomach aches, etc.)
Fear and Anxiety Affect the Brain Architecture of Learning and Memory

**Prefrontal Cortex**
Center of executive functions; regulates thought, emotions, and actions. Especially vulnerable to elevation of brain chemicals caused by stress. Matures later in childhood.

**Amygdala**
Triggers emotional responses; detects whether a stimulus is threatening. Elevated cortisol levels caused by stress can affect activity. Matures in early years of life.

**Hippocampus**
Center of short-term memory; connects emotion of fear to the context in which the threatening event occurs. Elevated cortisol levels caused by stress can affect growth and performance. Matures in early years of life.

Source: Persistent Fear and Anxiety Can Affect Young Children’s Learning and Development: Center on the Developing Child – Harvard University (www.developingchild.net)
Does Anxiety Impact Behaviour?

(Wagner & Jutton, 2004)
Anxiety
Prevalence Rates

• **Clinical Levels:**
  – Approximately 6% of school aged children have “clinical” levels of anxiety *(Canadian Mental Health Association)*.

• **Non-Clinical Levels:**
  – 1 in 3 Ontario students reported high levels of stress and worry over the past few weeks *(Gr. 7-12; 2011 CAMH)*.
Key Issues

• Anxiety, fear, and worry are normal body reactions.

• Anxiety is a “biological warning” system that enables us to anticipate and avoid harm and failure.

• Appropriate levels of anxiety is key for our survival and safety.
  – “Fight” or “flight” response
• **Fight or Flight**

**Fight Or Flight Response**
When faced with a life-threatening danger it often makes sense to run away or, if that is not possible, to fight. The fight or flight response is an automatic survival mechanism which prepares the body to take these actions. All of the body sensations produced are happening for good reasons — to prepare your body to run away or fight — but may be experienced as uncomfortable when you do not know why they are happening.

- **Thoughts racing**
  - Quicker thinking helps us to evaluate danger and make rapid decisions. It can be very difficult to concentrate on anything apart from the danger (or escape route) when the fight or flight response is active.
  - If we don’t exercise (e.g., run away or fight) to use up the extra oxygen then we can quickly start to feel dizzy or lightheaded.
- **Changes to vision**
  - Vision can become acute so that more attention can be paid to danger. You might notice ‘tunnel vision’ or vision becoming ‘sharper’.
- **Breathing becomes quicker and shallower**
  - Quicker breathing takes in more oxygen to power the muscles. This makes the body more able to fight or run away.
- **Dry mouth**
  - The mouth is part of the digestive system. Digestion shuts down during dangerous situations as energy is diverted towards the muscles.
- **Heart beats faster**
  - A faster heart beat feeds more blood to the muscles and enhances your ability to run away or fight.
- **Nausea and ‘butterflies’ in the stomach**
  - Blood is diverted away from the digestive system which can lead to feelings of nausea or ‘butterflies’.
- **Bladder urgency**
  - Muscles in the bladder sometimes relax in response to extreme stress.
- **Hands get cold**
  - Blood vessels in the skin contract to force blood towards major muscle groups.
- **Muscles tense**
  - Muscles all over the body tense in order to get you ready to run away or fight. Muscles may also shake or tremble, particularly if you stay still, as a way of staying ‘ready for action’.

**Adrenal glands release adrenaline**
The adrenaline quickly signals other parts of the body to get ready to respond to danger.

**Bladder urgency**
Muscles in the bladder sometimes relax in response to extreme stress.

**Hands get cold**
Blood vessels in the skin contract to force blood towards major muscle groups.

**Muscles tense**
Muscles all over the body tense in order to get you ready to run away or fight. Muscles may also shake or tremble, particularly if you stay still, as a way of staying ‘ready for action’.

**Palm become sweaty**
When in danger the body sweats to keep cool. A cool machine is an efficient machine, so sweating makes the body more likely to survive a dangerous event.
• Anxiety can help:
  – people deal with potentially threatening situations
  – study harder for an exam
  – perform better in sports
• Anxiety Disorders:
  – The brain and the body is acting as if there is an immediate and major threat even if one does not exist.

• Individuals with anxiety tend to:
  – **OVERESTIMATE** risk, danger, and threat
  – **UNDERESTIMATE** coping abilities.
Making the Distinction

Normal Anxiety
- Reasonable
- Manageable
- Mobilizing
- Time Limited
- Age Matched

Problem Anxiety
- Excessive
- Uncontrollable
- Paralyzing
- Chronic
- Age mismatched
Anxiety Disorders

Separation Anxiety Disorder
Anxiety Disorders

Separation Anxiety Disorder
Generalized Anxiety Disorder
Anxiety Disorders

Separation Anxiety Disorder
Generalized Anxiety Disorder
Specific Phobias
Anxiety Disorders

- Separation Anxiety Disorder
- Generalized Anxiety Disorder
- Specific Phobias
- Social Anxiety
Anxiety Disorders

Separation Anxiety Disorder
Generalized Anxiety Disorder
Specific Phobias
Social Anxiety
Obsessive-Compulsive Disorder
Anxiety Disorders

- Separation Anxiety Disorder
- Generalized Anxiety Disorder
- Specific Phobias
- Social Anxiety
- Obsessive-Compulsive Disorder
- Panic Disorder
Anxiety Disorders

Separation Anxiety Disorder
Generalized Anxiety Disorder
Specific Phobias
Social Anxiety
Obsessive-Compulsive Disorder
Panic Disorder
Post-Traumatic Stress Disorder
Etiology of Anxiety
The Anxious Brain

• Brain imaging studies help us better understand how brains of anxious children differ compared to non-anxious children.
fMRI Study

(Thomas, K. 2001, Archives of General Psychiatry, 58,1057-1063)

• Participants
  – Anxious and non-anxious children (8-16 years old)

• Task
  – While hooked up to a fMRI machine, view fearful and neutral facial expressions.
• Findings:

• Children with anxiety disorders showed enhanced brain responses to the fearful faces compared to non-anxious children.

• Heightened activity found in the parts of the brain associated with fear processing and emotion regulation
Unhelpful Thinking Styles

Faulty Thoughts

Irrational Thoughts

Illogical Thoughts

Catastrophic Thoughts
Components of Anxiety

Feelings

Thoughts

Behaviors

Feelings → Thoughts → Behaviors
### Unhelpful Thinking Styles

<table>
<thead>
<tr>
<th>Style</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All or nothing thinking</strong></td>
<td>Sometimes called ‘black and white thinking’. If I’m not perfect I have failed. Either I do it right or not at all.</td>
</tr>
<tr>
<td><strong>Mental filter</strong></td>
<td>Only paying attention to certain types of evidence. Noticing our failures but not seeing our successes.</td>
</tr>
</tbody>
</table>
| **Jumping to conclusions** | There are two key types of jumping to conclusions:  
  - Mind reading (imagining we know what others are thinking)  
  - Fortune telling (predicting the future)  
  
  $2 + 2 = 5$ |
| **Over-generalising**      | Seeing a pattern based upon a single event, or being overly broad in the conclusions we draw. “everything is always rubbish.” “nothing good ever happens.” |
| **Disqualifying the positive** | Discounting the good things that have happened or that you have done for some reason or another. That doesn’t count. |
| **Magnification (catastrophising) & minimisation** | Blowing things out of proportion (catastrophising), or inappropriately shrinking something to make it seem less important. |
| **Emotional reasoning**    | Assuming that because we feel a certain way what we think must be true.  
  I feel embarrassed so I must be an idiot. |
| **Labelling**              | Assigning labels to ourselves or other people  
  - I’m a loser  
  - I’m completely useless  
  - They’re such an idiot |
| **Personalisation**        | Blaming yourself or taking responsibility for something that wasn’t completely your fault. Conversely, blaming other people for something that was your fault. “this is my fault”. |

Source: PSYCHOLOGYTOOLS.ORG
Magnification (catastrophising) & minimisation

Blowing things out of proportion (catastrophising), or inappropriately shrinking something to make it seem less important
Catastrophizing

“Typical” Non-Anxious Individual

- Average windy day

“Typical” Anxious Individual

- Storm that will cause trees to crash into my house and badly hurt me

- Just a tiny spider

- Poisonous tarantula that can kill

- Typical acne

- Disgusting rash that will cause everyone to stare and hate me forever
There are two key types of jumping to conclusions:

- **Mind reading**
  (imagining we know what others are thinking)

- **Fortune telling**
  (predicting the future)
Mental filter

Only paying attention to certain types of evidence.

Noticing our failures but not seeing our successes
If we can address the errors in thinking, we can have a significant impact of anxiety.
Cognitive Behavioural Therapy

• Cognitive Techniques
  – Thinking
    • Strategies to change faulty thoughts to more realistic ones

• Behavioural Techniques
  – Actions
    • Strategies to support graduated exposure to anxiety inducing situations

• Physiological Techniques
  – Feelings
    • Strategies to facilitate greater levels of relaxation and calmness
Help Students Change “Faulty” Thoughts to “Realistic” Thoughts
How to identify faulty thoughts

• Simple guiding question:
  – “What is the worst case scenario if……..?”
Using the “so what” questioning technique

- Identify first thought; after each thought, we put the word “so what” ...
  - “I’m not a very good speaker” ........ so what?
  - “I might make a mistake” ........ so what?
  - “I will look like I don’t know what I’m doing” ........ so what?
  - “The audience will think I don’t know anything in this area”
  - “The audience will think I don’t know anything at all”
  - “They will tell other people about how I don’t know anything”
  - “More people will know about my lack of skills and knowledge”
  - “I will develop a poor reputation of being incompetent”
  - “Important people will also find out about my incompetence”
  - “I won’t be able to get a job”
  - “I’ll be a failure”
• Test (faulty) thoughts by examining available evidence and experiences:

• Discussing:
  • What happens to other people in similar situations?
  • Most likely thing to happen?
  • What happened when I worried before?
  • How many times has my “worst case scenario” actually come true?
  • Etc.

• Do research to find the “hard facts”
BOSS BACK THOSE WORRIED THOUGHTS!!!!
Anxiety

Learning Disabilities
Learning Disabilities

• Significant difference between a student’s overall cognitive abilities (IQ) and their academic achievement.
Learning Disability Profile

Average Range
(25th-75th percentile)

Some kids find learning very difficult.

Most kids are able to do things expected for their age.

Some kids find learning quite easy.
Learning Disability Profile

Cognitive Abilities (IQ)
Average or above average

Processing Deficit

Academic Abilities
Below average

Some kids find learning very difficult.
Most kids are able to do things expected for their age.
Some kids find learning quite easy.
Cognitive Distortions and Learning Disabilities

- Faulty thoughts are a major contributor to the hardships experienced by students with a learning disability.

I’m so STUPID!
“I’m so STUPID!”

Feelings

• Overwhelmed
• Ashamed
• Purposeless
• Unsuccessful
• Frustrated
• Dejected
• Etc..

Thoughts

• Avoidance
• Escape
• Withdrawal
• Disruptiveness
• Class Clown
• Procrastination
• Oppositional
• Etc..

Behaviors
“What’s the use, I ALWAYS get EVERYTHING WRONG!!”

- Overwhelmed
- Ashamed
- Purposeless
- Unsuccessful
- Frustrated
- Dejected
- Etc..

- Avoidance
- Escape
- Withdrawal
- Disruptiveness
- Class Clown
- Procrastination
- Oppositional
- Etc..
“This will take FOREVER!!!”

Feelings
- Overwhelmed
- Ashamed
- Purposeless
- Unsuccessful
- Frustrated
- Dejected
- Etc..

Thoughts

Behaviors
- Avoidance
- Escape
- Withdrawal
- Disruptiveness
- Class Clown
- Procrastination
- Oppositional
- Etc..
Thinking Errors and Learning Disabilities

- Tendency for students with a learning disability to focus on their deficits.

Mental filter

- Only paying attention to certain types of evidence.
- Noticing our failures but not seeing our successes
Tendency for students with a learning disability to overlook, disregard, downplay, or reject positive aspects about themselves or school.
• Tendency for students with a learning disability to view mistakes as catastrophic instead of a normal part of the learning process and as opportunities to learn how to do things differently.
Tendency for students with a learning disability to focus on “output” instead of “effort” or needing to do things “perfectly” or “not at all”.

All or nothing thinking

Sometimes called ‘black and white thinking’

If I’m not perfect I have failed

Either I do it right or not at all
Tendency for students with a learning disability to put blame on themselves or others (e.g., teachers) for some of the hardships they experience as a result of having a learning disability.
Why MUST we Address Unhelpful Thinking Styles?

![Graph showing the relationship between anxiety/arousal/stress/fear and performance. The graph indicates that there is an optimal level of anxiety/arousal/stress/fear for high performance, with performance decreasing as anxiety/arousal/stress/fear increases or decreases.]
Why MUST we Address Unhelpful Thinking Styles?

Yerkes- Dodson Law – 1908 (Inverted U Theory of performance)

Anxiety/Arousal/Stress/Fear

High

Low

Performance

Low

Given

Up

High

Anxiety/Arousal/Stress/Fear
Why MUST we Address Unhelpful Thinking Styles?

Yerkes- Dodson Law – 1908 (Inverted U Theory of performance)

Anxiety/Arousal/Stress/Fear

Performance

Given Up

Constant Duress

Low

High

Low

High

Anxiety/Arousal/Stress/Fear
What Do We Do?

• Identify faulty thoughts and *sensitively* but *directly* challenge them by examining all available *evidence*!
<table>
<thead>
<tr>
<th>Faulty Thought</th>
<th>Evidence to Explore</th>
<th>Realistic Thought</th>
</tr>
</thead>
</table>
| • “I’m so stupid”                                        | • Demystifying LDs.  
• Review assessment findings and highlight strengths (e.g., 55th % ile on IQ).  
• Comments on report cards. | • “I may not be the smartest person in the universe, but I’m not the dullest.”  
• “I scored better than half the kids my age who took this same test”          |
| • “I’m the only one in my class who doesn’t understand this” | • Discussion with teacher about general student struggles.  
• Encourage student to check in with classmates about how much they know about certain topics (secondary students). | • “Learning new things can be tough for lots of people”  
• “Several of my friends are also struggling, so I’m not alone”                  |
| • “Everything about school sucks”                        | • Explore aspects of school that the student enjoys and excels at (e.g., sports teams, clubs, recess, gym class, music class, drama, lunch time, etc.) | • “Some parts of school are great, some parts of school are not so great”  
• “I actually like more parts of school than I dislike”                           |
<table>
<thead>
<tr>
<th>Faulty Thought</th>
<th>Evidence to Explore</th>
<th>Realistic Thought</th>
</tr>
</thead>
<tbody>
<tr>
<td>• “This will take forever”</td>
<td>Do one question with the student and time how long it takes to complete; multiply by the number of questions</td>
<td>• “This will only take 20 minutes”</td>
</tr>
<tr>
<td>• “I can’t be successful if I have this disability”</td>
<td>Successful people with learning disabilities</td>
<td>• “Many influential people have learning disabilities”</td>
</tr>
</tbody>
</table>
Source: http://www.special-education-degree.net/25-famous-people-with-learning-disorders/
Underestimate Coping Abilities

• Talk to students about the accommodations they are entitled to:
  – Technology
  – Extra time
  – Preferential seating
  – Quiet space
  – Calculators
  – Etc.
Addressing The Physiological Aspects of Anxiety
• **Fight or Flight**
• Fight or Flight
**Fight or Flight**

*Fight Or Flight Response*

When faced with a life-threatening danger it often makes sense to run away or, if that is not possible, to fight. The fight or flight response is an automatic survival mechanism which prepares the body to take these actions. All of the body sensations produced are happening for good reasons – to prepare your body to run away or fight – but may be experienced as uncomfortable when you do not know why they are happening.

- **Thoughts racing**
  - Quicker thinking helps us to evaluate danger and make rapid decisions. It can be very difficult to concentrate on anything apart from the danger (or escape route) when the fight or flight response is active.

- **Changes to vision**
  - Vision can become acute so that more attention can be paid to danger. You might notice 'tunnel vision', or vision becoming 'sharper'.

- **Dry mouth**
  - The mouth is part of the digestive system. Digestion shuts down during dangerous situations as energy is diverted towards the muscles.

- **Heart beats faster**
  - A faster heart beat feeds more blood to the muscles and enhances your ability to run away or fight.

- **Nausea and 'butterflies' in the stomach**
  - Blood is diverted away from the digestive system which can lead to feelings of nausea or butterflies.

- **Hands get cold**
  - Blood vessels in the skin contract to force blood towards major muscle groups.

- **Muscles tense**
  - Muscles all over the body tense in order to get you ready to run away or fight. Muscles may also shake or tremble, particularly if you stay still, as a way of staying 'ready for action'.

- **Breathing becomes quicker and shallower**
  - Quicker breathing takes in more oxygen to power the muscles. This makes the body more able to fight or run away.

- **Adrenal glands release adrenaline**
  - The adrenaline quickly signals other parts of the body to get ready to respond to danger.

- **Bladder urgency**
  - Muscles in the bladder sometimes relax in response to extreme stress.

- **Palm become sweaty**
  - When in danger the body sweats to keep cool. A cool machine is an efficient machine, so sweating makes the body more likely to survive a dangerous event.

*Images by Psychology Tools - www.psychology.tools*
• **Fight or Flight**

**Fight Or Flight Response**

When faced with a life-threatening danger it often makes sense to run away or, if that is not possible, to fight. The fight or flight response is an automatic survival mechanism which prepares the body to take these actions. All of the body sensations produced are happening for good reasons – to prepare your body to run away or fight – but may be experienced as uncomfortable when you do not know why they are happening.

- **Thoughts racing**
  - Quicker thinking helps us to evaluate danger and make rapid decisions. It can be very difficult to concentrate on anything apart from the danger or escape route when the fight or flight response is active.

- **Changes to vision**
  - Vision can become acute so that more attention can be paid to danger. You might notice 'tunnel vision', or vision becoming 'sharper'.

- **Dry mouth**
  - The mouth is part of the digestive system. Digestion shuts down during dangerous situations as energy is diverted towards the muscles.

- **Heart beats faster**
  - A faster heart beat feeds more blood to the muscles and enhances your ability to run away or fight.

- **Nausea and 'butterflies' in the stomach**
  - Blood is diverted away from the digestive system which can lead to feelings of nausea or 'butterflies'.

- **Hands get cold**
  - Blood vessels in the skin contract to force blood towards major muscle groups.

- **Muscles tense**
  - Muscles all over the body tense in order to get you ready to run away or fight. Muscles may also shake or tremble, particularly if you stay still, as a way of staying 'ready for action'.

- **Breathing becomes quicker and shallower**

- **Adrenal glands release adrenaline**
  - The adrenaline quickly signals other parts of the body to get ready to respond to danger.

- **Bladder urgency**
  - Muscles in the bladder sometimes relax in response to extreme stress.

- **Palm become sweaty**
  - When in danger the body sweats to keep cool. A cool machine is an efficient machine, so sweating makes the body more likely to survive a dangerous event.

---

*Sources: [psychology.tools](http://psychology.tools)*
• Fight or Flight

**Fight Or Flight Response**

When faced with a life-threatening danger it often makes sense to run away or, if that is not possible, to fight. The fight or flight response is an automatic survival mechanism which prepares the body to take these actions. All of the body sensations produced are happening for good reasons – to prepare your body to run away or fight – but may be experienced as uncomfortable when you do not know why they are happening.

- **Thoughts racing**
  - Quicker thinking helps us to evaluate danger and make rapid decisions. It can be very difficult to concentrate on anything apart from the danger (or escape route) when the fight or flight response is active.

- **Changes to vision**
  - Vision can become acute so that more attention can be paid to danger. You might notice ‘tunnel vision’, or vision becoming ‘sharper’.

- **Dry mouth**
  - The mouth is part of the digestive system. Digestion shuts down during dangerous situations as energy is diverted towards the muscles.

- **Heart beats faster**
  - A faster heart beat feeds more blood to the muscles and enhances your ability to run away or fight.

- **Nausea and ‘butterflies’ in the stomach**
  - Blood is diverted away from the digestive system which can lead to feelings of nausea or ‘butterflies’.

- **Hands get cold**
  - Blood vessels in the skin contract to force blood towards major muscle groups.

- **Muscles tense**
  - Muscles all over the body tense in order to get you ready to run away or fight. Muscles may also shake or tremble, particularly if you stay still, as a way of staying ‘ready for action’.

- **Breathing becomes quicker and shallower**
  - Quicker breathing takes in more oxygen to power the muscles. This makes the body more able to fight or run away.

- **Adrenal glands release adrenaline**
  - The adrenaline quickly signals other parts of the body to get ready to respond to danger.

- **Bladder urgency**
  - Muscles in the bladder sometimes relax in response to extreme stress.

- **Palm become sweaty**
  - When in danger the body sweats to keep cool. A cool machine is an efficient machine, so sweating makes the body more likely to survive a dangerous event.
• Talk to student about how their bodies physiologically respond to anxiety.
Extremely worried thoughts

Sweaty palms

Heart starts pounding

Start feeling nauseas

Constant need to twitch my legs
Relaxation Therapy

Deep Breathing Exercises

Progressive Muscle Relaxation

Mindfulness Exercises

Imagery

Physiologically impossible to be anxious and relaxed at the SAME time!
Summary

• Focus on resiliency by giving students the right tools for success!
  – Understanding the complex relationship and interplay between anxiety and learning disabilities.

• It takes a village
  – Use multidisciplinary teams and agencies
Resources

www.anxietyBC.com

http://www.worrywisekids.org/
Thank You!