WORRIED TO DEATH:
THE ANXIETY EPIDEMIC AND WHAT TO DO ABOUT IT

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PROGRAM OUTLINE

- Discuss the prevalence of anxiety and associated negative outcomes
- Explore the neurobiological processes related to anxiety
- Describe contributors to anxiety, both on and off campus
- Provide recommendations for treatment and support

ANXIETY: THE FACTS

Results from ACHA's National College Health Assessment. Each item reflects students' experiences in the past 12 months.

	Spring 2019	Spring 2014	Spring 2009
Felt *overwhelming anxiety*	65.7%	54.0%	49.1%
Anxiety affected their academic performance	27.8%	21.8%	18.5%
Diagnosed or treated for *anxiety* by a professional	**24.3%**	14.3%	10.5%
Diagnosed or treated for *panic attacks* by a professional	**11.9%**	6.7%	4.9%
Seriously considered suicide	**13.3%**	8.1%	6.0%

87.4% felt overwhelmed by all they had to do in the past 12 months

ANXIETY: THE FACTS

Results of the 2018-2019 Healthy Minds Study of college students for comparison:

	2018-2019	2014-2015
Screened positive for *anxiety (GAD-7)*	31%	20%
Mental difficulties hurt academic performance in past 4 weeks	**77%**	56%
Diagnosed with anxiety by a professional (in their lifetime)	28%	20%
Suicidal ideation in the past year	14%	10%

43% of student who screened positive for anxiety or depression received counseling or therapy in the past 12 months…

Meaning that 57% of students with anxiety or depression have *not* received treatment.

ANXIETY: THE FACTS

- College counseling center directors report that anxiety is the **#1** presenting concern (58.9% of intakes) followed closely by stress (46.9%) in 2018.
- Graduate students are **6x** times more likely than the general population to experience anxiety and depression
- Suicide is the **2nd** leading cause of death among college students
- Sexual minorities and transfer students are **more likely** to have anxiety related diagnoses and to engage in self-harm and suicidality
- Since 2008, anxiety has increased at **higher rates** among students who identify transgender, Black, and Latinx
- Students with anxiety are **3.2** times more likely to abuse alcohol or drugs
- Anxiety increases as students get closer to graduation

NEGATIVE OUTCOMES FROM ANXIETY

COGNITIVE:

- Increased irrational/fearful thinking, catastrophizing, emotional reasoning, negative filtering
- Suicidal thoughts

BEHAVIORAL:

- Poor academic performance; lower academic achievement
- Poor class attendance; skipping classes
- Tendency to "machine through"
- Inadequate sleep or poor sleep hygiene
- Poor eating habits (e.g.-junk food, under-eating, stress eating, etc.)
- Self-medicating with caffeine, alcohol, marijuana, or other substances
- Social withdrawal or isolation (staying in room, etc.)
- Self-harm or suicide attempts

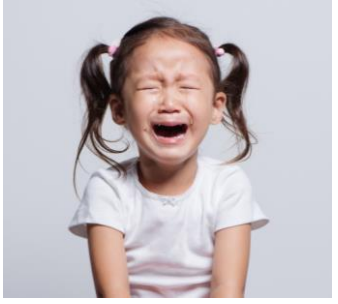
NEGATIVE OUTCOMES FROM ANXIETY

EMOTIONAL:

- Increased depression
- Overwhelm/panic
- Feelings of dread
- High emotionality; irritability
- Hopelessness

PHYSIOLOGY:

- Shorter attention span; difficulty concentrating
- Jittery, jumpy, fidgety, or "keyed up"
- Panic attacks
- Impaired memory, attention, and problem-solving
- Sleep difficulties
- Increased physical illness



BUT WHAT IS ANXIETY?

ANXIETY IS WHAT?

- "Anxiety is your ***body's*** **natural** response to stress. It's a ***feeling*** of fear or apprehension about what's to come."
- "Anxiety is a **normal** and often healthy ***emotion***."
- "Occasional anxiety is an **expected** part of life."
- "Everyone feels anxious now and then. It's a **normal** ***emotion***."
- "It's a **normal** part of life to experience occasional anxiety."

If anxiety is so "normal" then how has it become such a problem? Furthermore, is anxiety an emotion? Is it a bodily response?

What is it?

ANXIETY: IT'S SIMPLE BUT COMPLICATED

BIOLOGY + EXPERIENCES = ANXIETY

While all people encounter anxiety, some people have more biological or experiential factors that contribute to that anxiety becoming pathological or disordered.

THE BIOLOGY OF ANXIETY

THE BRAIN AS AN ICEBERG

ANXIETY SOUP

Our brain's response to a threat in and of itself is not an emotion. Emotions (aka-anxiety) require conscious awareness and cognitive interpretation of informational input. It's like making soup!

INGREDIENTS:

- ✓ Brain threat/survival response
- ✓ Observation of physiological/behavioral changes
- ✓ Related Memories
- ✓ Past learning from experience or observation
- ✓ Interpretation/perceptions of the current situation
- ✓ Awareness that this is happening to the self
- ✓ Concept of emotions and words/meanings
- ✓ Associations between threat, memory, biological response
- ✓ Sensory input
- ✓ Imagination about the possibilities of what could happen

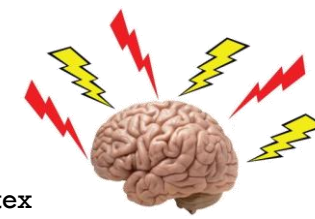
COMPLICATING FACTOR #1: STRESS

Stressful events are linked to increased mental health diagnoses, self-harm, and suicidality, and college students experience a "**high rate**" of multiple stress exposures

58.7% of student reported 'more than average' or 'tremendous' stress in the past year

CHRONIC STRESS & CORTISOL:

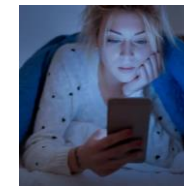
- Damages/changes brain structures and function; kills brain cells
- Hardwires amygdala to hippocampus; creates constant state treat detection and response
- Increases size and connectivity of the amygdala
- Inhibits connection to the prefrontal cortex; shrinks prefrontal cortex
- Impairs memory, organization, visual perception, and attention
- Inhibited melatonin production, which impacts sleep and reduces the brain's ability to rejuvenate making it less efficient and reducing cognitive performance
- High blood pressure, heart disease, diabetes, digestion, reproduction, immune system



COMPLICATING FACTOR #2: SLEEP DEPRIVATION

52.8% of students felt exhausted (not from physical activity) in the past 2 weeks.
22.4% reported sleep difficulties affected their academic performance in the past year.

SLEEP DEPRIVATION: (less than 7 hours per night)



- Causes 60% increase in reactivity of amygdala; decreases emotion regulation
- Makes brain less efficient; impairs cognitive performance; decreases capacity to learn and make memories
- Decreases productivity, motivation, creativity, honesty, and athletic performance
- Increases anxiety, depression, suicidal thoughts, and aggression
- Linked to health issues, including cancer, dementia, Alzheimer's, high blood pressure, heart attach, stroke, diabetes, weight gain, weakened immune system

The average college student loses 46 minutes of sleep per night due to phone use.

COMPLICATING FACTOR #3: TRAIT ANXIETY

TRAIT ANXIETY: (genetics, biology, experiences?)

- Trait anxiety induces more, stronger state anxiety
- May be due to a disruption in the prefrontal cortex's ability to regulate the amygdala
- Individuals with trait anxiety have altered brain structures resulting in:
  - Reduced ability to consciously process images/visual stimuli
  - Heightened sensory sensitivity and over-processing of relationships among objects
- Trait anxiety may also alter threat processing in the brain causing:
  - Cognitive-perceptual (interpretation) bias = hypervigilance; over-attention to threats
  - Impaired ability to discriminate threats and safety; heightened reactivity to threat uncertainty
  - Overvaluation of threat significance and likelihood (judgement bias)
  - Maladaptive behavioral and cognitive control in the presence of threats
  - Increased avoidance - becomes habitual, causes constant threat expectancy, and inhibits extinction

ANXIOUS EXPERIENCES

ON CAMPUS AND OFF

ANXIOUS EXPERIENCES ON CAMPUS

- Competition or Overt student comparisons
  - Students who perceived their classroom environment as very competitive were 69% more likely to screen positive for anxiety, especially women, racial/ethnic minorities, first-generation college students, and queer students
- Not feeling cared about, valued, or supported by faculty
- Observations or encounters with discrimination/racism
  - Students who experience discrimination are 43% more likely to screen positive fore anxiety
- Poor social/peer support
  - Students reporting weak peer support are 51% more likely to experience anxiety
- Being ostracized for leaving a department, major, program, sport, etc.

ANXIOUS EXPERIENCES ON CAMPUS

- Atmosphere of hyper-achievement and "perfection"
  - Perpetuates stigma related to mental health issues and failure
- Heavy work loads and poor work-life balance
  - Academic distress has been found to be a leading cause of anxiety among college students
- Being overscheduled and overcommitted
  - At Greensboro College, roughly 70% of traditional undergraduates are involved in athletics or theater, in addition to work, social organizations, internships, etc.
- Experiences with institutional/status hierarchies, which are particularly anxiety-provoking for historically marginalized populations
- Hyper-focus on institutional image
  - Can lead to focus being placed on what the administration values rather than what students value/need, including student wellness
  - May contribute to rigid or inflexible policies that negatively impact student well-being

"It is both ironic and destructive that students who feel isolated are surrounded by hundreds of others who feel the same way. Our desire to market residential colleges as leafy oases of fun and communal engagement can prevent us from speaking honestly about the prevalence of anxiety and can actually worsen that anxiety among students who feel left out of the party."
(B. Rosenberg, 2018)

OFF CAMPUS: A CULTURE OF UN-WELLNESS

We are living in an ***unwell*** culture in general as evidenced by:

- Chronic busyness/workaholism
- Chronic sleep deprivation
  - Two-thirds of adults in developed nations fail to obtain 8 hours of sleep nightly
- Chronic stress
- Obsession with instant gratification and quick fixes
  - E.g.-instant communication, fast/instant food, medication/instant relief, next-day shipping, on-demand services, etc.
- Inability to do 'nothing'
- False identities and/or the illusion of happiness
  - Contributes to comparisons, competition, negative self-image, FOMO
- Commodification of wellness or the "Wellness Industrial Complex"
  - E.g.-fad diets, miracle cures, supplements, detoxes, etc.

OTHER CONTRIBUTORS TO ANXIETY

- Concerns about finances and future employment
  - Public, in-state tuition and fees have increased by nearly **300%** in the past 20 years
  - The average college graduate has nearly **$40,000** in student loan debt
  - **7.2%** of young college graduates are *unemployed* and **14.9%** are *underemployed*
  - **33.5%** of students report that 'finances' were traumatic or very difficult to handle in 2019
  - Students who come from low-income families are **2.7 times** more likely to have anxiety
- Concerns about safety
  - Incidents of gun violence on campus have **tripled** in the past decade
  - From 2015 to 2017, there was a **30%** increase in hates crimes on campus
  - **1 in 5** college women experience sexual assault

- Impacts of Technology
  - Young adults who spend more than 20 hours per week on devices are 53% more likely to have anxiety then those who spend fewer than 5 hours a week on devices

THE PERFECT STORM

- Significant life transition/adjustment
- Identity development/individuation
- Pressure to succeed/achieve
- Fear of disappointing others/failure
- Financial pressures; economy/job market; paying off debt
- Imposter syndrome; feelings of inadequacy
- Isolation, loneliness, homesickness
- New/complex relationships
- Learning self-reliance
- Age of onset for mental disorders
- Lack of life experience/coping skills
- Larger societal culture of perfection
- Constant deadlines/expectations
- Poor/disrupted sleep
- Poor nutrition
- Possible harassment/discimination
- Social pressures; "selfie spotlight"
- Politically polarized climate
- Experimenting with drugs/alcohol
- Making big decisions about the future

50.6% of students reported having 3 or more life stressors that have been traumatic or very difficult to handle in the past 12 months.

WHAT CAN WE DO?

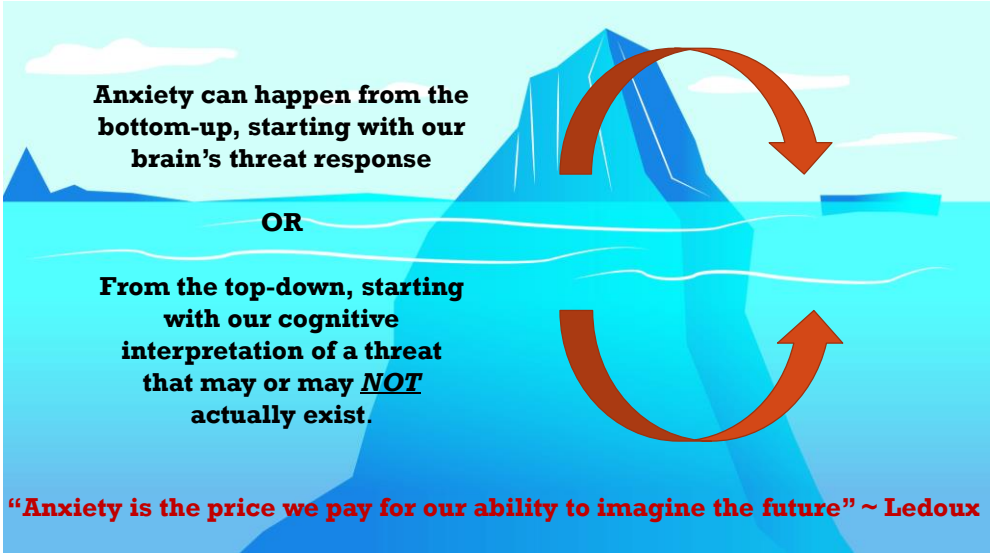
RETHINK TREATMENT

RETHINK SUPPORT

GET BACK TO BASICS

***Disclaimer:** There is no one-size-fits-all treatment model that will work for every client, and treatment modalities should always be determined based the unique needs of the client and their experiences related to anxiety.

REMEMBER THE ICEBERG?



RETHINKING TREATMENT

A	Activating Event	Activating Event/Stimulus
B	Belief	Brain's Response (nonconscious, conscious)
C	Consequences (emotions, behaviors)	Consequences (physiological, behavioral, emotional, cognitive)
D	Dispute Belief	Desensitization (implicit and explicit)
E	Effective New Belief	Effective New Response

Holmes, 2020

EXPLORING DESENSITIZATION

Implicit Desensitization

- A bottom-up (nonconscious) process
- Engages the medial prefrontal cortex
- Reduces the brain's threat response, but may not reduce the conscious feeling of distress except as a by-product of removing a few ingredients from the anxiety "soup"
- Success is measured in a reduction of the physiological/threat response in the brain/body
- **Includes** – Extinction through stimulus repetition/habituation; avoidance reduction; active coping/self-exposure; relaxation breathing; mindfulness meditation

Explicit Desensitization

- A top-down (conscious) process
- Engages the lateral prefrontal cortex
- Reduces the conscious feeling of distress, but may not change the brain's threat response to a stimulus
- Success is measured in the reduction of cognitive and emotional distress
- **Includes** - Cognitive restructuring, reappraisal of treats and maladaptive beliefs; self-monitoring of thoughts, behaviors, and physiological responses; verbal instruction

In order for the desensitization to work, we must address both implicit and explicit processes.

SUGGESTIONS TO ENHANCE EXTINCTION

LeDoux suggests the following strategies to improve extinction:

- Do NOT using cognitive restructuring until after extinction; allows for greater expectancy/experience mismatch which more strongly reinforces new learning
- Work on extinguishing one stimuli at a time, but then combine them into a final composite extinction session
- Try to eliminate safety behaviors during extinction (e.g.-relying on having a friend rather than doing tasks alone)
- Use multiple exposure contexts; extinction is context dependent
- Recognize that occasional reinforcement of the feared stimulus can be helpful in the extinction process
- Minimize talk, instruction, or verbal processing as much as possible
- Break exposures into small increments rather than a full session (e.g.-3 exposures of five minutes each, but not consecutively in session)
- After exposure, limit activities that might interfere with memory consolidation

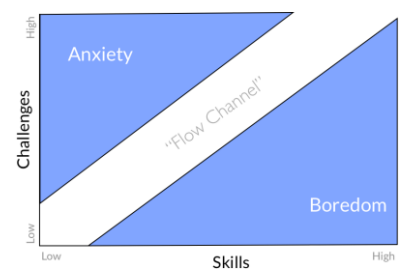
CHALLENGES TO TREATMENT

1. AVOIDANCE:
   - Reinforces maladaptive behaviors and fear by never allowing the process of extinction to occur; lack of exposure to the threat is seen as evidence that avoidance is an effective strategy for maintaining safety
2. MEDICATION:
   - Most medications are tested on animals; may be helpful in numbing the brain's response but may not counteract conscious thought-induced anxiety
   - Medications are tested on state anxiety; may not be helpful with trait anxiety
   - Concerns about medicating the brain's threat/survival response when it is technically doing what it is designed to do
3. EXTINCTION & REAPPRAISAL:
   - The effects of extinction can dissipate with time or be reversed by various triggers
   - Stress/cortisol can prevent extinction by impairing prefrontal cortex function
   - Trying to combine conscious cognitive reappraisal and with extinction (i.e.-exposure therapy) may interfere with the brain's ability to fully process either effectively since they are separate processes but require shared resources

RETHINK SUPPORT

Educate faculty/staff on campus about what support looks like:

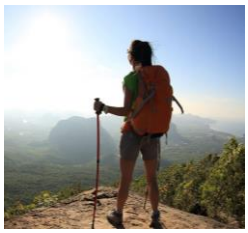
- Support means recognizing when external factors might be increasing anxiety and not pathologizing the student for these experiences
- Support may mean encouraging students to do less (or nothing)!!
- Support is based in a relationship and must be individualized
- Support means normalizing struggles and failure
- Support is teaching, modeling, and encouraging students take better care of themselves
- Support means rethinking success – i.e. Individual success is institutional success and individual failure is institutional failure
- Support requires balancing challenge with skill level and support (*Csikszentmihalyi; Sanford*)



AND FINALLY…GET BACK TO BASICS

STRESS + REST = GROWTH

Over and over, research has shown that the best cure for anxiety, stress, and other mental health concerns is self-care; however, most people fail to meet these basic wellness goals.



1. Adequate sleep: 7.5 or more hours per night
2. Physical activity: some of it in nature!
3. Healthy eating
4. Social connection: face to face
5. Self connection: meditation, emotional awareness, cultivating interests/values; idle time to daydream, create, or problem-solve
6. Finding and acting with purpose/meaning

These basic practices have been shown to **reduce cortisol** and improve overall health and happiness. **Anxiety-related damage to the body and the brain is reversible** thanks to the neuroplasticity of the brain.

QUESTIONS

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