Resilience - In a Nutshell

- We all have a different capacity to deal with stressors.
- Some people have gallon containers.
- Some people have pint containers.
- The goal of stress reduction is to decrease the volume in your container (decrease the effects of stress)
  - Chemically
  - Herbs
  - Valerian
  - Kava
- The goal of stress management is to give you a bigger container.
  - Meditation
  - Time in nature
  - Pursuing pleasure
  - Nerve tonics

The Stress Response is a Spectrum

[Diagram of stress response spectrum]

How Perceived Danger Affects Us

- Perceived danger stimulates the hypothalamus to release CRH and vasopressin
- This stimulates the pituitary to release ACTH
- ACTH stimulates the adrenals to release cortisol
- Cortisol inhibits the release of CRH and ACTH
- This is known as the HPA Axis (Hypothalamus-Pituitary-Adrenal Axis)

Perception is About Priority

Stress and the Nervous System

- Perceived danger activates the sympathetic nervous system, which suppresses the parasympathetic nervous system
The Stress (Trauma) Response is Essential to Survival

- The stress response is a built-in survival mechanism.
- When there is a danger to our physical survival, a mechanism is triggered in our brain to optimize the body’s ability to respond to that danger.
- This is a life-saving response that allows us to react to the danger with maximum efficiency.

Normal Stress Reaction

The normal stress response causes a state of alert, when we perceive a danger, which is followed by a state of discharge in which we act or react to do something about the danger, followed by a period of rest and recovery.

Danger is Danger
The “Adrenaline Rush”

• Many activities create this same “adrenaline rush,” such as:
  – Watching an action adventure or horror film
  – Engaging in extreme sports such as rock climbing, zip gliding and bungee jumping
  – Riding amusement park rides
• Why is do people consider this reaction positive sometimes and negative at other times?

What is Anxiety

• Anxiety is a normal emotional response to perceived danger, and most of us experience moments of it on a regular basis.
• When anxiety becomes chronic and leads to a decline in a person’s function or quality of life, it is classified as an anxiety syndrome or disorder.
• Anxiety is characterized by uncontrollable feelings of nervousness, panic, and fear.
• These feelings often develop into obsessive-compulsive rituals, irrational fears and phobias, social isolation and avoidance

Medical Anxiety Disorders

• Generalized Anxiety Disorder: Excessive, unrealistic worry and tension, with little or nothing to provoke the anxiety
• Social Anxiety Disorder: Overwhelming worry and self-consciousness about everyday social situations, excessive fear of being judged by others, or of behaving in a way that might cause embarrassment or lead to ridicule
• Specific Phobias: Intense fear of a specific object or situation, such as mice, snakes, tight spaces, heights or flying, with the level of fear inappropriate to the situation
• Panic Disorder: Feelings of terror that strike suddenly and repeatedly without warning. Symptoms of a panic attack include sweating, chest pain, heart palpitation (unusually strong or irregular heartbeat) that make the person think he or she is “losing it.”
Anxiety Symptoms

• Shortness of breath
• Rapid heartbeat or heart palpitations
• Muscle tension
• Trembling
• Insomnia
• Irritability
• Chest pain
• Cold sweats
• Feeling faint
• Constant feelings of stress
• Dry mouth

Associated Health Issues

• Heart disease
• High blood pressure
• Cancer
• Diabetes
• Arthritis
• Fibromyalgia
• Pain
• Addiction to alcohol, smoking and drug use

Statistics and Causes

• Anxiety disorders affect about 40 million adults in the United States age 18 and older (about 18% of adults)
• Causes are not fully understood, but contributing factors include:
  – Unresolved trauma and abuse
  – Nutritional deficiencies
  – Environmental toxins
  – Genetic factors
  – Sleep debt
  – Inflammation
Modern Medical Psychopharmacology

- First line psychopharmacological treatments for anxiety disorders include SSRIs (i.e. Zoloft), SNRIs (i.e. Effexor), TCA's (i.e. amitriptyline), and MAOIs (i.e. Emsam).
- Other agents used are beta blockers (i.e. propranolol), alpha blockers (i.e. clonidine, prazosin), gabapentin, and buspar. Certain antipsychotics such as Seroquel and perphenazine can also be used.
- Benzodiazepines are sadly used first line by ill-informed providers but should only be used as an intervention of last resort and for only 2-4 weeks.

Benzodiazepines

- Benzodiazepines first came into usage in 1960 with the agent Librium (chlordiazepoxide). This was quickly followed by Valium (diazepam) in 1963 and followed by others.
- In 1977 Benzodiazepines became some of the most widely prescribed drugs in the world.
- The following other Benzodiazepines are in common usage in the United States:
  - Xanax (alprazolam), Klonopin (clonazepam), Tranxene (chlorazepate), ProSom (estazolam), Dalmane (flurazepam), Ativan (lorazepam), Serax (oxazepam), Restoril (temazepam), Halcion (triazolam), and Doral (quazepam). Alprazolam, clonazepam, lorazepam, and diazepam are the most commonly prescribed agents on an outpatient basis for anxiety disorders.
Benzodiazepines Cont’d

• There are no licensed indications for the use of Benzodiazepines for greater than 2-4 weeks (Mehdi, 2012) and yet Benzodiazepines are often prescribed on a long term basis.
• This is despite the fact that cognitive behavior therapy has shown superior efficacy for the treatment of anxiety disorders (Mitchell, et al., 2012).
• Benzodiazepines actually impair a patient’s ability to benefit from psychotherapy. A 2015 study by Guina (et al., 2015) shows that in individuals with PTSD benzodiazepines numb emotions, decrease learning in therapy, and inhibit memory processing of material learned in therapy, thus worsening outcomes in psychotherapy.

Benzodiazepines Cont’d

• It is possible that chronic use of Benzodiazepines actually increase anxiety and other problems over the long term.
• In a 1996 study by Michelini (et al), a large number of patients developed agoraphobia and panic attacks when they did not have them previously.
• The author believes that chronic benzodiazepine use can cause subtle toxicity which increases psychopathology in long term users.
• Daily users of Benzodiazepines are at an increased risk of developing delusions and hallucinations (Tien, et al, 1990) and in a study by Mathew et al (2000), 53% of long-term benzodiazepine users developed violent characteristics.

Benzodiazepines Cont’d

• Benzodiazepines are not without their cognitive risks.
• Tannenbaum (2012) shows that Benzodiazepines result in short term cognitive impairment and at times amnesia.
• Though benzodiazepine users frequently develop tolerance for sedation and drowsiness, this is not true for cognitive impairment (Dell’Osso, et al, 2013).
• Barker (et al, 2004) show that it takes up to 6 months for many individuals to recover from cognitive impairments, and in some individuals these impairments can be permanent.
• A recent study in the British Journal of Medicine (Gage, et al., 2014) showed that individuals who had used Benzodiazepines for greater than 3 months had a 51% increased risk of Alzheimer’s Disease. The study authors note that even if only taken occasionally (once or twice a week), this risk remains.
• In this study if individuals took 180 doses in a row or spread them over a couple of years, their risk of developing Alzheimer’s disease remained double that of individuals who had never taken Benzodiazepines in the first place.
• Leung (et al, 2011) shows that individuals who take Benzodiazepines have an increased risk of being in a motor vehicle accident secondary to cognitive impairment.
Benzodiazepines Cont’d

Chronic benzodiazepine use also carries other risks to long term physical health. In a study by Kao (et al, 2012), the authors indicate a possible link between benzodiazepine risk and cancer. In their study individuals with exposure to Benzodiazepines were at a 19% increased risk of developing cancer.

Older adults taking Benzodiazepines have a 50% increased risk of hip fractures. (Cumming, et al. 2012).

Lechin (et al, 2004) found that long term benzodiazepine use leads to suppression of the immune system, and Obiora (et al, 2013) found that exposure to Benzodiazepines was associated with an increased risk of developing and dying of pneumonia.

Sanders (et al, 2015) found the benzodiazepine use increases a patient’s vulnerability to infection with influenza.

Wakakura (2004) also found that chronic use of Benzodiazepines is a risk factor for blepharospam, which is an uncontrolled twitching of the eyelid that can only be treated with injection of botulism toxin or surgical myectomy.

Holistic Strategies for Reducing Anxiety

1. Therapy
2. Sleep
3. Exercise
4. Nutrition
5. Deep Breathing Exercises
6. Mediation
7. Use Herbs, Essential Oils, and Nutritional Supplements
Therapy = Talk About Your Stress

Mainstream Therapy

• The first line treatment for all anxiety disorders should be **individual psychotherapy** using Cognitive Behavior Therapy or Third Wave therapies such as Acceptance and Commitment Therapy, Dialectical Behavior Therapy, Behavioral Activation, etc. **EMDR has utility across all anxiety disorders but is especially effective in PTSD.**
• Neurofeedback also has preliminary evidence in the treatment of anxiety disorders.
Sleep and Perception of Threat
Allostasis

Exercise

• Regular physical activity can reduce anxiety, including:
  – Walking
  – Running
  – Swimming
  – Enjoying a sport such as golf or tennis
• The activity "burns off" the stress hormones and helps the body relax

Exercise
Yoga

A systematic review of yoga for state anxiety: Considerations for occupational therapy

Deep Breathing

- Practicing deep breathing will help to reduce feelings of anxiety
- "Square" the breath, breathing in-2-3-4, hold-2-3-4, out-2-3-4 and hold-2-3-4
- Also breathing in deeply, while thinking, "I am..." and out deeply, thinking "...relaxed" can help

Breath Deeply In and Out

Physiology of long parasympathetic breathing: Neural respiratory elements may provide a mechanism to relaxation breathing off the autonomic nervous system

Parnell, J. et al. (2018). Psychosomatic Medicine, 80, 295-303.
Nutrition and Anxiety

- Drew Ramsey, MD and Assistant Clinical Professor of Psychiatry at New York Presbyterian Hospital, states:
  - "Almost universally, people get more anxious and irritable when they are hungry. When you get an anxiety attack, it may mean your blood sugar is dropping. The best thing to do is to have a quick sustaining snack, like a handful of walnuts or a piece of dark chocolate, along with a glass of water or a nice cup of hot tea."
HALT

HALT
Are you
Hungry
Angry
Lonely
Tired/Taking yourself to seriously?

Avoid Stimulants with Anxiety

• Caffeine
  – Coffee
  – Soda
  – Tea
• Sugar
  – Refined sugar
  – White flour
  – Excessive carbohydrates
• Alcohol
Caffeine

Calming the Monkey Chatter

- Constant flow of “verbal” thoughts linked with worry, fear, obsession and anxiety
- Learn to get in touch with the part of you that “listens” to the monkey chatter and stop identifying it
- Practicing some form of meditation can be very helpful for this

Tools to Calm the Mind

- Meditation
- Prayer
- Focus on the present moment
- Mindful awareness of one’s body and surroundings
- Creating a positive affirmation to replace negative thoughts
Mindfulness

Progressive Muscular Relaxation

Rituals Help us Cope

- A ritual is a way of externalizing what is going on internally
- This can help one see something more objectively and release it
- Having other people participate in the ritual with you can also be very healing
The Ritual of Tea

Aromatherapy for Anxiety

• Relieve Anxiety: use of anxiolytics, sedatives, and nervines
• Reduce or relieve stress
• Reduce muscle tension
• Encourage deep breathing
• Address other symptoms that may arise (insomnia, nausea, fatigue, etc.)
Aromatic Tools for Anxiety

- Inhalation
  - Inhaler tube
  - Direct palm inhalation, etc.
- Diffusion
- Baths
- Massage (both self massage and/or professional massage therapy)

Pathways

<table>
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<tr>
<th>Olfaction</th>
<th>Dermal Application</th>
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<tr>
<td><img src="lavender_inhaled.jpg" alt="Image of lavender flowers being inhaled" /></td>
<td><img src="massaged.jpg" alt="Image of a person receiving a massage" /></td>
</tr>
</tbody>
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Lavender

- **Cardiovascular system:** hypertension, heart palpitations (from anxiety), tachycardia
- **Digestive system:** stress-related digestive upsets
- **Musculoskeletal system:** muscular aches and pains, tension
- **Nervous system:** restlessness, insomnia, stress, shock, headaches, migraines, neuralgia, nausea, stress related disorders
Lavender

- Calming remedy for anxiety, depression, nervousness and insomnia
- Can be used in baths to calm the nerves and in pillows to aid sleep
- Helpful for nervous, high strung people who are too much "up in their heads"

Herbs and Supplements for Anxiety

**Nerve Tonics**
- Magnesium
- Lithium
- Skullcap
- Milky Oats
- Damiana
- Borage

**Nerve Sedatives**
- Motherwort
- Blue Vervain
- Kanna
- Polygala
- Lemon Balm
- Hops
- Lavender
- Lobelia
- Kava
Magnesium

- Essential for enzyme activity responsible for the transmission of nerve and muscle impulses
- Depletion can cause irritability, irregular heartbeat, nervous fatigue symptoms, twitching, muscle spasms
- Anxiety with hypersensitivity may be a sign of deficiency

Magnesium and Essential Oil Baths

- 1-2 cups of Epsom salt in a warm bath
- You can also add 5-10 drops of a relaxing essential oil
  - Lavender
  - Chamomile
  - Bergamot

Lithium

- Lithium is on the periodic table of elements and is a natural salt that comes from the earth. It is a naturally occurring trace element in water supplies of various places in the world
- Lithium was originally a component of 7up.
- Many experts think their should be an RDA of 1mg a day for lithium.
Ashwaganda (*Withania somnifera*)

- A major Ayurvedic herb used as an anti-aging and rejuvenating tonic
- A unique combination of tonic/resorptive properties, and sedative effects.
- Restorative to endocrine and reproductive function
- Best choice for breaking the vicious cycle of deficiency causing insomnia

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Roman chamomile

- Indicated for stress, tension, anxiety, and insomnia
- Blends well with lavender, neroli, mandarin, sweet orange, ylang ylang

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Skullcap

- *Scutellaria lateriflora*
- It beneficial for people “at the end of their rope” or people so frazzled they’re about to snap. In fact its good for people that do snap or flip out over small stuff
- Skullcap works well when people feel as if every sound, touch and bit of light is personally attacking them. They are oversensitive to any stimulation
Bergamot

- **Anxiety**, uplifts yet calms, stress and stress-related conditions, sedative/calming, irritability, depression, difficulty falling asleep or staying asleep (great with lavender and/or Roman chamomile).

Blue Vervain

- Good nervine for hard driving, fanatical overachievers who get burned out, frazzled and overwhelmed
- Helps ease neck and shoulder tension
- Helps empty the head of thoughts and stress
- Combines well with motherwort and pulsatilla for generalized anxiety.

Citrus Essential Oils

- **Anxiolytic**
- Ayurveda Note: In Ayurveda, the citrus oils would be considered light and drying hence they are most indicated for kapha imbalances. However, the citrus essential oils are all incredibly beneficial for relieving anxiety and therefore are useful for vata imbalances as well. When blending for a vata emotional imbalance simply add in warming and heavy (think roots) essential oils. An example would be for vata constipation, one could blend:
  - 12 drops Black pepper: digestive stimulant, warming
  - 10 drops Ginger: root, warming, grounding and digestive tonic, stimulates peristalsis
  - 18 drops Grapefruit: relieves anxiety which may be contributing to constipation and supportive to Black pepper and Ginger to encourage elimination.
  - 1 ounce sesame oil
Motherwort

- *Leonurus cardiaca*
- For those fried and frazzled with a tendency to palpitations and other heart stress – hormonal induced stress

Rose

- Emotional realm: anxiety, tension, insomnia, compassion, grief, love, forgiveness, relieves anxiety, beautiful antidepressant, low libido (use with ylang ylang), stress relieving, very heart centered

Kava

- *Piper methysticum*
- Kava is great for anxiety, especially if caused by being around people.
- It is also great for people who get anxious or fearful before bed causing insomnia.
- Kava is traditionally used before negotiations to get every body calm and alert
  - Marriage counseling
  - Business negotiations
Is It Safe?

- There have 78 cases of liver toxicity linked to Kava, including 11 cases of liver failure and 4 fatalities.
- There are some indications that the cases of liver failure occurred because unscrupulous companies used leaves and stems instead of roots their Kava products to save money.
- However even the native people who consume large amounts of Kava root as a traditional tea have elevated liver enzymes.
- So we recommend Kava not be used if you have any history of liver problems, or with alcohol.
- Kava also should not be used for long times or in high doses.

Is It Safe?

- Kava is very effective for pain, stress and occasional anxiety. However if you have chronic anxiety or pain you should work on the root of that problem instead of taking Kava everyday to treat the symptom.
- You should also NEVER drive after consuming Kava.
- There have been several cases of people being convicted of driving under the influence because of Kava. So please don’t drink (kava) and drive.

Passion Flower

- *Passiflora incarnata*
- Useful when your thoughts are like two squirrels chasing each other’s tails.
- You lay down at night and think of one thing and then another, an hour later your wide awake and back at the beginning thought.
Hops

- The hops person spends too much time thinking and planning. They may even get depressed when life spoils their well-made plans. – Dorothy Hall
- It is specific for nervousness with twitching or muscular irritability, indigestion and insomnia
- It helps with stress induced indigestion and colic, and stimulates digestion

Other Essential Oils

- Grounding/heavy
  - Vetiver
  - Patchouli
  - Sandalwood
- Ylang ylang
- Conifers
- Warming
  - Black pepper
  - Ginger
  - Clove bud

Nervine Differentials

- Skullcap – lights, noises and smells overwhelm – recovery from mental breakdown – recovery from stimulant drugs
- Hops – stress induced stomach heat – over-planning over-thinking.
- Valerian – a knocker outer - palliative sedative
- Passion Flower – circular thinking, helps mind disconnect.
- Chamomile – whiny “babies of all ages”
- Lemon Balm – uplifting but relaxing - for the person who can’t stop going - great for infection induced stress.
- Lavender – headaches, anxiety, insomnia and depression that comes from constant worry – hug in a bottle
- Motherwort - fried and frazzled with a tendency to palpitations and other heart stress – hormonal induced stress
- Linden Flower – nerves causing cardio heat and palpitations
Thank you!

www.aromaticstudies.com  www.eclecticschoolofherbalmedicine.com