

The Chemistry of Calm

Cultivating Resilience in a Stress-Filled World

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Objectives

- Describe the most common "enemies of joy"
- Identify natural and effective approaches to personal resilience and to prevent anxiety and depression
- Discuss the principles of "the psychology of mindfulness"
- Understand the connection between unhappy or joyful mental states to brain function, and describe how mindfulness practice may improve those mental states.

Joy

*“Surely joy is
the condition
of life.”*

-Thoreau



A Holistic Disease?



Depression and Anxiety

- 100 years
 - Increased 10% per decade
- Seligman
 - 10 times higher risk
- Disability
 - US
 - WHO



Causes of Depression and Anxiety

If not just genetics, then...

Why?

The Enemies of Joy

- Physical Imbalance and Toxicity
- The Mind Run Rampant
- The Illusion of Separation

Why Zebras Don't Get Ulcers...

Because they don't
suffer from *chronic*
stress



...But People Do

“We’ve evolved to be smart enough to make ourselves sick.”

-Robert Sapolsky



Minnesota Healthscores

- How are we doing with depression treatment?
- 115 Minnesota clinics measured PHQ-9 scores:
 - Treatment indicated if score >9
 - Remission if score <5 at 6 months
- Best rate of remission: 36%
- Only 8 clinics have >10% remission. Average is 4%

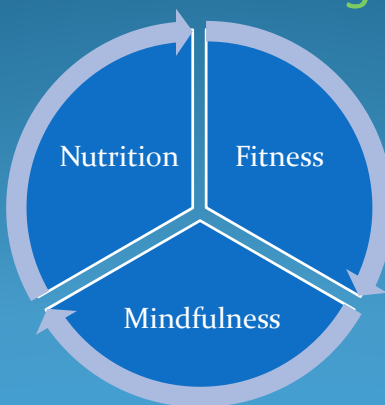
Source: mnhealthscores.org

Treating Depression/Anxiety

We can do better!

- Depression and anxiety are complex conditions.
- They require more complex, sophisticated solutions.
- Patients want to know what they can do for themselves.

The Resilience Training Program



Psychology of Mindfulness Groups

- 8 Week Group meets 2 ½ hours per week
- 16-18 participants
- Not a replacement for therapy
- A skills-based program
- Creating a circle of trust



Resilience Training Study

- A non-randomized trial design was used to:
- To determine the feasibility of conducting the Resilience Training (RT) program in working employees of Allina Hospitals and Clinics.
- To assess whether an 8-week RT intervention reduces depressive symptomology, anxiety, stress, quality of life, and work productivity in employees compared to wait list group.
- Evaluate if the wait list group improves after receiving RT.

December 8, 2009

RT Study Design

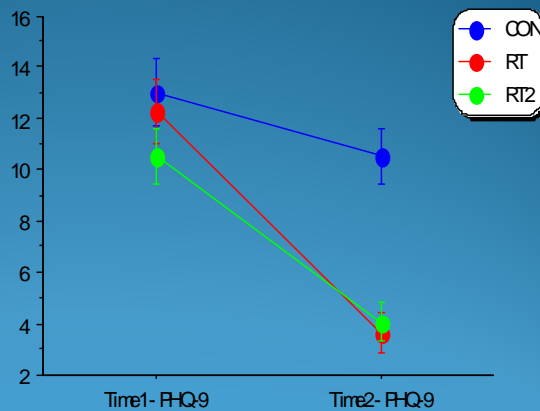
- The first 20 eligible employees were assigned to Immediate RT (n=20) and the second 20 employees were assigned to the control group (n=20).
- Outcomes included self-report questionnaires for depressive symptomology (PHQ-9), quality of life (SF-12), perceived stress (PSS), anxiety (STAI), healthy lifestyle (HPLPII) and workplace productivity-presenteeism (WPAI).

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RT Study Results: PHQ-9 (Patient Health Questionnaire-9)

Analysis between RT vs control indicates a significant improvement for RT. More than 60% of employees achieved remission of their depression without the addition of any medications.

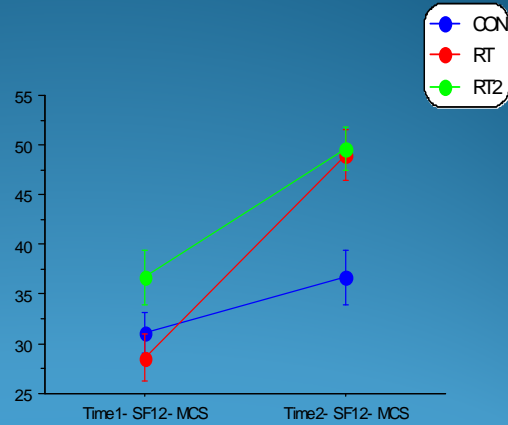
When control receives RT (now called RT₂), we observed identical improvements.



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RT Study Results: Quality of Life

RT vs control indicates a significant improvement for RT on mental subscale of SF-12. RT₂ had identical improvements.

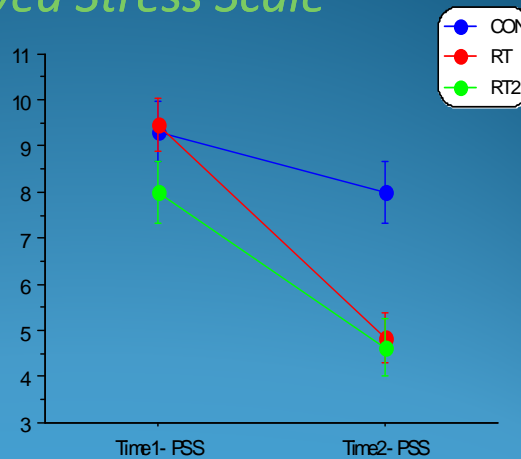


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RT Study Results: Perceived Stress Scale

The RT groups reported a more significant decrease: 8.8 to 4.7 (less than 6 considered ideal).

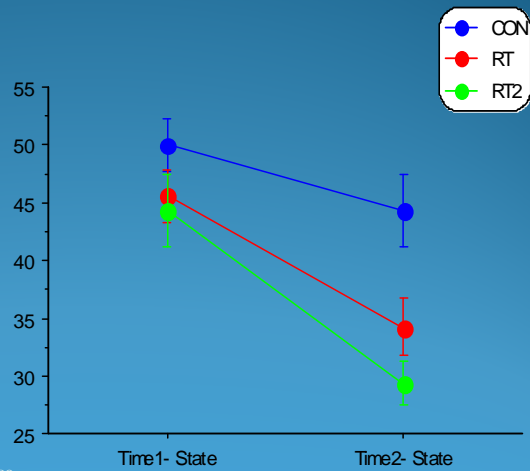
RT₂ had identical improvements.



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RT Study Results: Spielberger's State Trait Anxiety Inventory

RT vs control indicates a significant improvement for RT on State Anxiety. RT₂ had identical improvements.

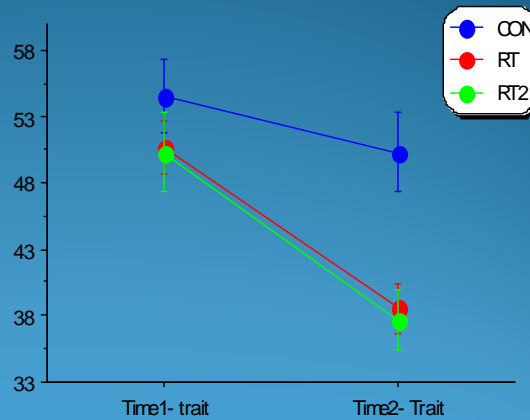


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RT Study Results: Spielberger's State Trait Anxiety Inventory

The RT groups scores decreased from 45.1 to 32.0 (less than 38 is considered ideal) on Trait Anxiety.

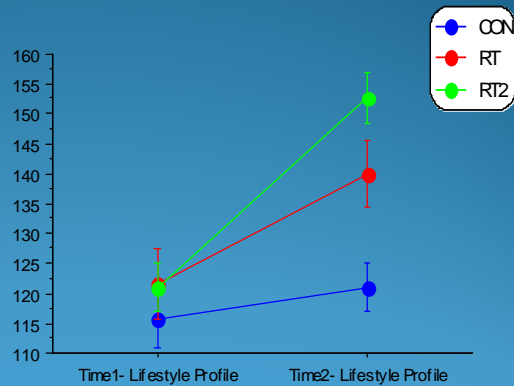
RT₂ had identical improvements.



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RT Study Results: Health Promoting Lifestyle Profile

RT vs control indicates a significant improvement for RT on Healthy Lifestyle profile. RT2 had identical improvements.



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RT Study Results: Sleep Quality (0-10 scale)

RT vs control indicates a significant improvement for RT on sleep question. RT2 had identical improvements.



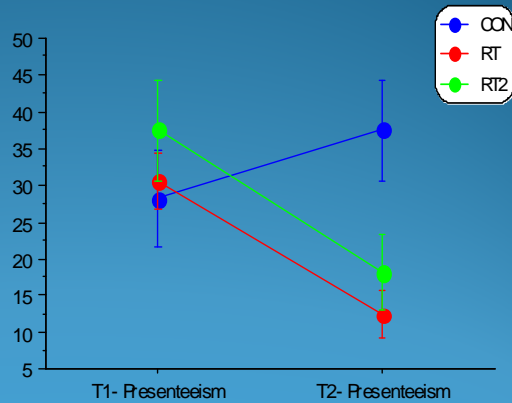
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RT Study Results: Work Productivity and Activity Impairment Questionnaire

RT group versus control demonstrates an improvement in the % time of self-reported presenteeism by over 50%.

Results from RT2 mirror the improvements of the RT group.

Return on investment of 2.42 (\$2181 saved/\$900 spent per participant)



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Seven Roots of Resilience

ASPECT OF RESILIENCE	AREA OF FOCUS	CORE PRACTICES
Balancing Brain Chemistry	Biochemical Body	Diet, supplements, medications when needed
Managing Energy	Energy Body	Exercise, supplements, activities
Aligning with Nature	Rhythmic Body	Sleep, hormones, cycles of activity/rest, balanced lifestyle
Calming the Mind	Thinking Mind	Mindfulness of breath, body, thought, speech
Skillfully Facing Emotions	Emotional Mind	Awareness of inner experience, grounding in the moment, releasing "my story"
Cultivating a Good Heart	Heart Capable of Love	Opening to self-acceptance, loving-kindness, generosity, gratitude
Creating Deep Connections	Soul Capable of Unity	Connecting, developing a sense of belonging, seeing interconnection, knowing "All will be well"

The First Root of Resilience: Balancing Brain Chemistry

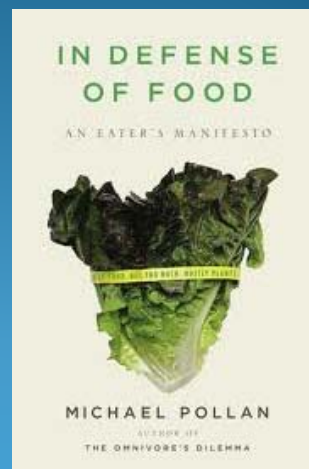
Eating healthier
will **usually** help
you feel better.



A Resilient Diet in 7 Words

“Eat food.
Not too much.
Mostly vegetables.”

-Michael Pollan



The Energy Thieves

- Insulin Resistance
- Inflammation
- Food Sensitivity

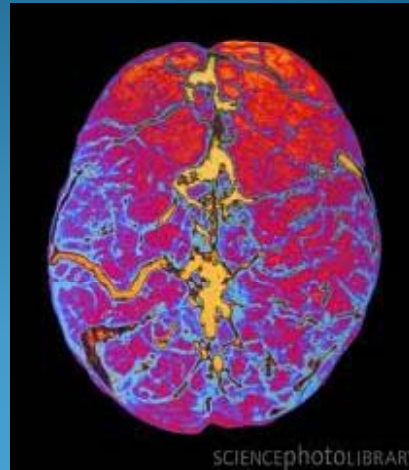
Insulin Resistance

Starving in a world
of excess



Inflammation

Brain on fire.



Food Sensitivity

A hidden source of inflammation



The Second Root of Resilience: Managing Energy

*"The energy of the mind is the essence
of life."*

-Aristotle

Managing Energy: Resilient Movement

1. Exercise
2. Non-Exercise
3. Mindful Movement

Exercise Guidelines: Adults

- **Weekly minimum exercise:**
 - At least 2 ½ hours of moderate-intensity aerobic activity per week
 - OR 75 minutes of vigorous-intensity aerobic activity per week
 - PLUS muscle-strengthening activity on at least 2 days per week

<http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html>

Exercise Guidelines: Children

- At least 1 hour or more per day
- Mostly aerobic
 - Should be vigorous at least 3 times per week
- Include muscle strengthening (e.g. push-ups or gymnastics) at least 3 days per week as part of the 60 minutes
- Include bone-strengthening activities, like jumping rope or running, at least 3 times per week.

Managing Energy with Exercise: Increasing Energy

- More vigorous
- Increase heart rate
- Break a sweat
- Weight training
- Interval training



For The Exercise-Resistant: “Non- Exercise”



- Any movement of daily living
- Burns calories
- Tones muscles

Mindful Movement: Yoga



Mindful Movement/T'ai Chi



Mindful Movement/Walking



The Third Root of Resilience: Aligning with Nature

“Sometimes the cure for restlessness is rest.”

–Colleen Wainwright

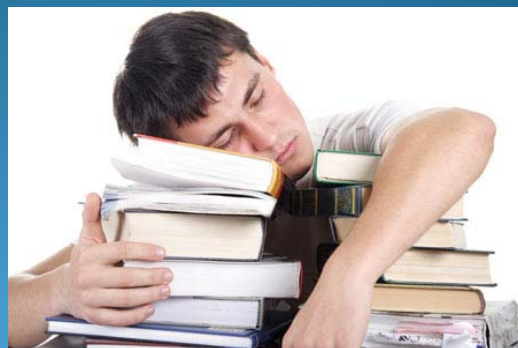
Resilient Sleep

- Sleep problems are a common trigger for mental illness
- There is no way to recover fully unless sleep improves



Natural Sleep: How much?

- Average in 1900
- Average today
- Timing
- Naps



The Fourth Root of Resilience: Calming the Mind

*“Mind is the forerunner of all things.
Begin with mind.”*

-The Dhammapada

A Fresh Approach: The Psychology of Mindfulness

- Buddhist View of Suffering: The Four Noble Truths
- Unskillful Mind States: Grasping, Rejecting, and Disconnecting
- Mindfulness Practices

Calming the Mind

- Mindfulness of body and breath
 - Pausing: Mindful Breathing
 - Mindfulness meditation
- Recognizing “monkey mind”, “wild mind”, “puppy mind”
- Developing “observing self”

The Fifth Root of Resilience: Skillfully Facing Emotions

*“Let everything happen to you:
beauty and terror.
Just keep going. No feeling is final.”*

-Rilke

Befriending Emotion



*"Be grateful for
whoever comes for
each has been sent
as a guest from
beyond."*

- Rumi

Turn Toward the Feeling

*"Tears are the river of life washing away the old to make way
for the new."*

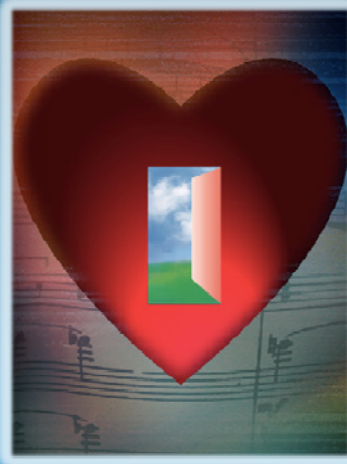
-Unknown

- Experiencing emotions as body sensation
- "Riding the wave"
- Dropping the story line
- Staying with the experience

The Sixth Root of Resilience: Cultivating A Good Heart

*“Love is the great work
Though every heart is
first an apprentice...”*

-Hafiz



The Dialectic of Change

*“You are perfect as you are.
And you could stand a little
improvement!”*

- Suzuki-roshi

*Self Acceptance:
Easier Said Than Done*



*Loving-Kindness:
A Heart Opening Practice*

“The more we care for the happiness of others, the greater is our own sense of well-being.”

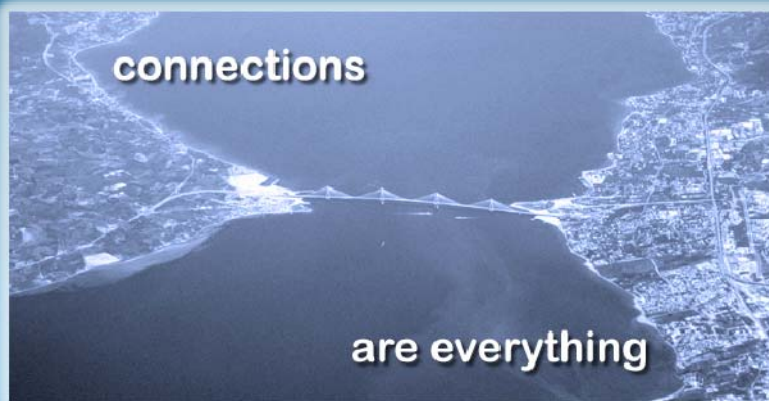
- The Dalai Lama

Practicing Compassion

“Be kind. Everyone you meet is fighting a great battle.”

-Philo of Alexandria

The Seventh Root of Resilience Creating Deep Connections



Why Are You Unhappy?

"Because nearly everything you say and do is for yourself...and there isn't one."

- Chinese Proverb



Cultivating Deep Connections

- Dissolving the boundaries
- Sympathetic Joy
- Creating our "House of Belonging"
- Connection with our inner wisdom
- Connection with sources of spiritual nourishment

What does everyone want?

*We can live
without religion
and meditation,
but we cannot
survive without
human affection.*

-The Dalai Lama



What's the one thing you can do?



There Is One Thing We Can Do

“There is one thing we can do, and the happiest people are those who can do it to the limit of their ability. We can be completely present. We can be all here. We can...give all our attention to the opportunity before us.”

Mark Van Doren