

# Discover Resilience:

## *Making a Difference with Passion and Purpose*

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## Confessions and Declarations

- I have no financial relationships or affiliations to disclose.
- I have no conflicts of interest related to material discussed in this presentation.

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## A Noble Profession

- Most physicians go into their profession to make a difference to others.
- They are incredibly smart, work hard, sacrifice immensely, have noble intentions and kind hearts.
- Society has traditionally respected physicians, rewarded them with reverence and treated them as pillars of their communities.

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## Physician Wellness

- Physicians today face monumental challenges unlike any in the entire history of modern medicine!
- Our sacred profession has not yet found a resilient way of responding to the challenge.
- We are paying a heavy price.

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## Challenges We Are Facing Today

- Less time with our patients
  - Doctor-Patient sacred relationship is weakened
- More demands to produce, to perform, to justify
- Loss of autonomy
- More non-essential, non-clinical work (*paperwork, emails, reviews*)

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## Challenges We Are Facing Today (cont'd)

- Repetitive exposure to trauma, illness, suffering, inadequate options and death
- Sense of isolation and decrease in connectivity and collegiality
- Fear of malpractice suits
- Decline in life-work balance and quality of life
- Less time for self-care
- Loss of meaning and purpose

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## Challenges We Are Facing Today (cont'd)

- Almost half of U.S. physicians report symptoms of burnout\*
  - A state of physical, mental exhaustion combined with doubts about your value, competence and the value of your work.
- 1. Exhaustion
  - Physical
  - Emotional
  - Spiritual – losing enthusiasm for work

\*More than half of U.S. doctors experience burnout", [www.reuters.com/article/us-health-burnout-doctors-idUSK8N0T13QP20151202](http://www.reuters.com/article/us-health-burnout-doctors-idUSK8N0T13QP20151202)

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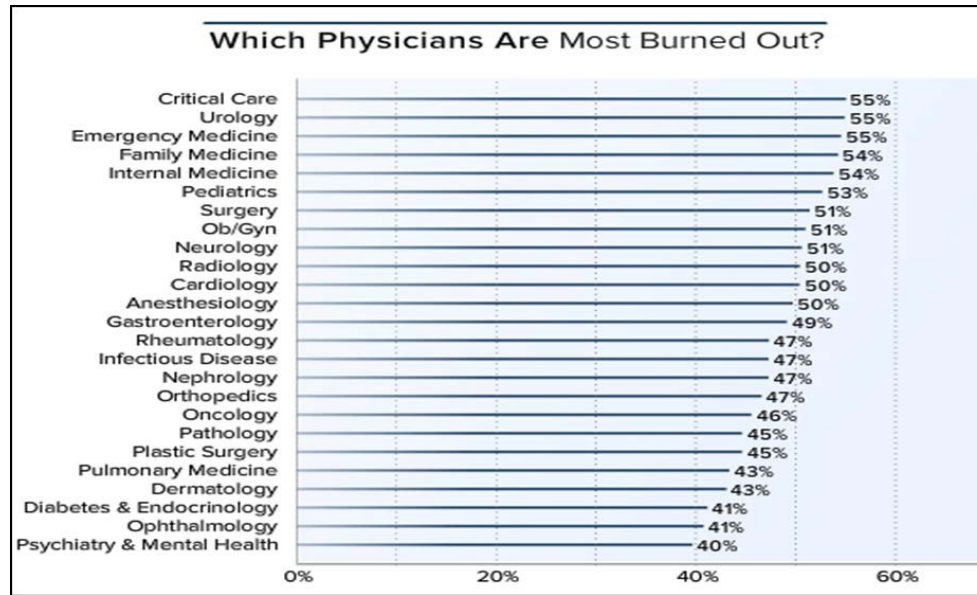
## Challenges We Are Facing Today (cont'd)

2. Depersonalization
  - Treating people as objects
  - Having less empathy
3. Low sense of personal accomplishment, loss of meaning and purpose
4. Irritability, low tolerance for frustration, anger, impatience and cynicism

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## Specialty Rates of Burnout\*



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## Could You Be Experiencing Burnout?

- Have you become cynical or critical at work?
- Do you drag yourself to work and have trouble getting started once you arrive?
- Have you become irritable or impatient with co-workers or patients?
- Do you lack the energy to be consistently productive?
- Do you lack satisfaction from your achievements?
- Do you feel disillusioned about your job?
- Are you using food, drugs or alcohol to feel better or to simply not feel?
- Have your sleep habits or appetite changed?
- Are you troubled by unexplained headaches, backaches or other physical complaints?

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## Consequences of Stress and Burnout in Physicians

- Quality of care goes down
  - Low empathy, compassion
  - Low professionalism, poor decisions
  - Higher medical errors
- Quality of patient outcomes goes down
  - Lower patient satisfaction of care
  - Decrease trust and confidence in their physicians
  - Lower adherence to recommended treatment

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## Consequences (cont'd)

- Personal consequences
- Marital discord, higher divorce rate
- Five times more likely to abuse prescription drugs and alcohol
- Higher depression and suicide rates
  - 70% higher in men
  - 400% higher in women
  - About 400 physicians commit suicide every year
- More vulnerable to illness
- More likely to leave the profession early

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## Desired Change For Physicians

- Build more resilience
- More balance in work and life
- More connectivity
- Increased capacity to cope with change and to influence change
- Better self-care
- Rediscover meaning and purpose
- Attitude of gratitude

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[RECLAIM YOUR JOY IN MEDICINE!](#)

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## The Key is Learning to Continuously Reinvent Yourself

It means learning to understand, cope, influence and adapt to change; staying physically, emotionally and spiritually active; cultivating new strengths, skills and ways to find joy, purpose and harmony; and feeling connected with those you serve, loved ones and your community.

~ R. Murali Krishna, MD, DLFAPA

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## The Science and Art of Thriving in Change, Finding Balance and Cultivating Joy

- Discover the Stress Neutralizing System
- Telomere length for health and longevity
- You may influence gene expression!
- Neuroplasticity:
  - Improving brain connections for better health!

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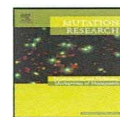
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Mutation Research 730 (2012) 85–89



Contents lists available at SciVerse ScienceDirect  
**Mutation Research/Fundamental and Molecular  
 Mechanisms of Mutagenesis**

journal homepage: [www.elsevier.com/locate/molmut](http://www.elsevier.com/locate/molmut)  
 Community address: [www.elsevier.com/locate/mutres](http://www.elsevier.com/locate/mutres)



Review

### Telomeres and lifestyle factors: Roles in cellular aging

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#### ARTICLE INFO

**Article history:**  
 Received 3 May 2011  
 Received in revised form 4 August 2011  
 Accepted 16 August 2011  
 Available online 22 August 2011

**Keywords:**  
 Telomere  
 Telomerase  
 Lifestyle  
 Aging Stress

#### ABSTRACT

Recent research has demonstrated that telomere maintenance might be a key integrating point for the cumulative effects of genetic, environmental and lifestyle factors on aging and aging-related diseases. It is timely to 'take stock' of where this work has led the field. This review summarizes studies that have examined associations between lifestyle factors and telomere length and telomerase activity. In most of the studies described in this chapter, telomere length was measured in leukocytes (LTL) or peripheral blood mononuclear cells (PBMCs), taken from blood draws from the study subjects. Much of this chapter focuses on psychological stress, a widespread factor often intimately tied in with lifestyle or behavioral factors that in turn are related to risks of clinical diseases. Together, these findings suggest that cellular aging is linked to a range of influences, with an individual's life events and lifestyle parameters playing significant roles. Lastly, we propose possible biochemical mechanisms that mediate these associations and discuss future directions.

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doi:10.1093/scan/nsp034

SCAN (2010) 5, 11–17

## Stress reduction correlates with structural changes in the amygdala

Britta K. Hölzel,<sup>1,2</sup> James Carmody,<sup>3</sup> Karleyton C. Evans,<sup>1</sup> Elizabeth A. Hoge,<sup>4</sup> Jeffery A. Dusek,<sup>5,6</sup> Lucas Morgan,<sup>1</sup> Roger K. Pitman,<sup>1</sup> and Sara W. Lazar<sup>1</sup>

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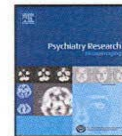
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Psychiatry Research: Neuroimaging 191 (2011) 36–43

Contents lists available at ScienceDirect



### Psychiatry Research: Neuroimaging

journal homepage: [www.elsevier.com/locate/psychresns](http://www.elsevier.com/locate/psychresns)

## Mindfulness practice leads to increases in regional brain gray matter density

Britta K. Hölzel<sup>a,b,\*</sup>, James Carmody<sup>c</sup>, Mark Vangel<sup>a</sup>, Christina Congleton<sup>a</sup>, Sita M. Yerramsetti<sup>a</sup>, Tim Gard<sup>a,b</sup>, Sara W. Lazar<sup>a</sup>

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# The American Journal of Psychiatry

August 2014, Volume 171 • Number 8

Official Journal of the AMERICAN PSYCHIATRIC ASSOCIATION

## Article

### Modifying Resilience Mechanisms in At-Risk Individuals: A Controlled Study of Mindfulness Training in Marines Preparing for Deployment

Douglas C. Johnson, Ph.D.

Nathaniel J. Thom, Ph.D.

Elizabeth A. Stanley, Ph.D.

Lori Haase, Ph.D.

Alan N. Simmons, Ph.D.

Pei-an B. Shih, Ph.D.

Wesley K. Thompson, Ph.D.

Eric G. Potterat, Ph.D.

Thomas R. Minor, Ph.D.

Martin P. Paulus, M.D.

**Objective:** Military deployment can have profound effects on physical and mental health. Few studies have examined whether interventions prior to deployment can improve mechanisms underlying resilience. Mindfulness-based techniques have been shown to aid recovery from stress and may affect brain-behavior relationships prior to deployment. The authors examined the effect of mindfulness training on resilience mechanisms in active-duty Marines preparing for deployment.

**Method:** Eight Marine infantry platoons (N=281) were randomly selected. Four platoons were assigned to receive mindfulness training (N=147) and four were assigned to a training-as-usual control condition (N=134). Platoons were assessed at baseline, 8 weeks after baseline, and during and after a stressful combat training session approximately 9 weeks after baseline. The mindfulness training condition was delivered in the form of 8 weeks of Mindfulness-Based Mind Fitness Training (MMFT), a program comprising 20 hours of classroom

instruction plus daily homework exercises. MMFT emphasizes interoceptive awareness, attentional control, and tolerance of present-moment experiences. The main outcome measures were heart rate, breathing rate, plasma neuropeptide Y concentration, score on the Response to Stressful Experiences Scale, and brain activation as measured by functional MRI.

**Results:** Marines who received MMFT showed greater reactivity (heart rate [ $d=0.43$ ] and enhanced recovery (heart rate [ $d=-0.67$ ], breathing rate [ $d=0.93$ ]) after stressful training; lower plasma neuropeptide Y concentration after stressful training ( $d=0.38$ ); and attenuated blood-oxygen-level-dependent signal in the right insula and anterior cingulate.

**Conclusions:** The results show that mechanisms related to stress recovery can be modified in healthy individuals prior to stress exposure, with important implications for evidence-based mental health research and treatment.

(*Am J Psychiatry* 2014; 171:844–853)

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NIH Public Access

Author Manuscript

*Brain Behav Immun*. Author manuscript; available in PMC 2013 October 01.

Published in final edited form as:

*Brain Behav Immun*. 2012 October ; 26(7): 1095–1101. doi:10.1016/j.bbi.2012.07.006.

### Mindfulness-Based Stress Reduction Training Reduces Loneliness and Pro-Inflammatory Gene Expression in Older Adults: A Small Randomized Controlled Trial

J. David Creswell<sup>1,5</sup>, Michael R. Irwin<sup>2,3</sup>, Lisa J. Burkclund<sup>3</sup>, Matthew D. Lieberman<sup>3</sup>, Jesusa M. G. Arevalo<sup>2</sup>, Jeffrey Ma<sup>2</sup>, Elizabeth Crabb Breen<sup>2</sup>, and Steven W. Cole<sup>2</sup>

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## Proceedings of the National Academy of Sciences

### [Article](#)

#### A functional genomic perspective on human well-being

1. [Barbara L. Fredrickson<sup>a</sup>](#),
2. [Karen M. Grewen<sup>b</sup>](#),
3. [Kimberly A. Coffey<sup>a</sup>](#),
4. [Sara B. Algoe<sup>a</sup>](#),
5. [Ann M. Firestone<sup>a</sup>](#),
6. [Jesusa M. G. Arevalo<sup>c</sup>](#),
7. [Jeffrey M. Cole<sup>c</sup>](#), and
8. [Steven W. Cole<sup>c,d,1</sup>](#)

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1. Edited by Burton H. Singer, University of Florida, Gainesville, FL, and approved July 2, 2013 (received for review March 20, 2013)

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**Resilience is the alchemy  
of life that transforms  
the coal of adversity  
into a magnificent  
diamond of strength.**

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**Resilience is the force that energizes an individual to grow through adversity or change by discovering one's resources, abilities and strengths.**

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## **The Science and Art of Resilience and Mindfulness**

- **Discover the Stress Neutralizing System**
- **Telomere length for health and longevity**
- **You may influence Gene Expression!**
- **Neuroplasticity:**
  - **Improving brain connections for better health!**

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## The Key is Learning to Continuously Reinvent Yourself

It means learning to understand, cope, influence and adapt to change; staying physically, emotionally and spiritually active; cultivating new strengths, skills and ways to find joy, purpose and harmony; and feeling connected with those you serve, loved ones and your community.

~ R. Murali Krishna, MD, DLFAPA

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## Dr. R. Murali Krishna's Mindful Keys

1. Learn to quiet the mind
2. Reignite your passion and purpose
3. Act with empowerment
4. Cultivate harmony
5. Rejuvenate and care for yourself
6. Nurture healthy connections
7. Savor altruism and spirituality

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## Positive Transformation

- Inner peace and happiness
- Emotional regulation
- Creativity
- Memory & Learning
- Relationships
- Resilience
- Performance
- Healing of mind and body

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## Learn to Quiet the Mind

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# The Secrets of the Resilient

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# ATTITUDE

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The resilient have an  
*“Attitude of Gratitude”*

- Genuine appreciation for life
- Sense of wonder and thankfulness

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The resilient  
acknowledge their fears.

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**The resilient work  
toward accepting the  
changes caused by adversity.**

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**The resilient  
are optimistic.**

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**The resilient discover  
joy in small things.**

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**The resilient  
have humility.**

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**The resilient  
have hope.**

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**CONNECTIVITY**

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**The resilient  
nurture relationships.**

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**The resilient  
develop a network  
of social support.**

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**The resilient have  
a sense of commitment.**

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**The resilient  
acknowledge and  
share how they feel.**

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**The resilient  
are not preoccupied with  
how others view them.**

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**The resilient are caring  
and giving – sharing  
dreams, plans, joys,  
and sorrows.**

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## The resilient

- Take pleasure in others' success
- Show concern in others' failure

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The resilient  
practice kindness.

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**The resilient learn to  
tolerate uncertainty.**

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**The resilient  
know how and where  
to direct their energy.**

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**The resilient  
develop patience  
and perseverance.**

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**The resilient  
are curious and seek new  
regenerative experiences,  
skills and relationships.**

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**The resilient learn  
to cope with stress  
in constructive ways.**

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**The resilient see  
change as a challenge.**

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## The resilient

### *Learn the Art of Self Talk*

- Stop negative thoughts
- Distract
- Redirect
- Detach, Disengage
- Stop
- Write
- Share
- Spring to action
- Look at the bigger picture

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## The resilient

### *Let Go Of Control*

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**The resilient  
seek equanimity.**

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**The resilient learn  
to modulate emotions.**

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**The resilient  
discover the art of  
calming the mind.**

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**The resilient**

*Find the Joy in Each Moment*

- **Live in the present**
- **Learn the “*Art of Flow*”**

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# Taking Care of Self

## *Healthy Options*

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**The resilient  
maintain  
healthy nutrition.**

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**The resilient are  
physically active.**

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**The resilient  
learn to play.**

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**The resilient**  
***Laugh A Lot!***

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**The resilient**  
**seek spirituality.**

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**The resilient  
practice forgiveness.**

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**The resilient  
discover reverence.**

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**The resilient discover  
how the experience of  
adversity strengthens them.**

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**The resilient  
discover the meaning  
for their struggle.**

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**The resilient  
discover a purpose  
that is greater  
than themselves.**

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## **Reignite Your Passion and Purpose**

### *Sevens Points of Self-Discovery:*

1. What motivated you to choose your current profession?
2. What specific memories of events, people and interactions stimulate your interest?
3. What gives you most joy, thrill and sense of accomplishment?
4. How do you see your purpose in life?
5. How do you want to be remembered by your loved ones, those you serve, and your community?
6. What keeps you going?
7. What simple message you give yourself symbolizes your determination to continue the journey and re-energize your passion?

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**The resilient are  
ordinary people who do  
extraordinary things when  
they face challenge,  
change or adversity.**

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### **Dr. R. Murali Krishna's Mindful Keys**

1. **Learn to quiet the mind**
2. **Reignite your passion and purpose**
3. **Act with empowerment**
4. **Cultivate harmony**
5. **Rejuvenate and care for yourself**
6. **Nurture healthy connections**
7. **Savor altruism and spirituality**

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The most sacred part of our profession  
is caring for people in their most  
vulnerable and fragile times.

Through our knowledge, wisdom and  
spirit we kindle their hope and healing.

Let no challenge take these reverential,  
fulfilling, humble and healing moments  
away from us.

~ R. Murali Krishna, MD, DLFAPA

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## Accessing Dr. Krishna's Presentations

"The Art of Happy Living™" Podcasts & Live Life Well Video Series

- Go to [www.integrisk.com/mentalhealth](http://www.integrisk.com/mentalhealth)
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- Podcasts may also be downloaded to your computer & then synced with MP3 player or mobile device (right-hand side of page under Download Podcasts)

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Dr. R. Murali Krishna's Book



Proceeds from book sales will be donated to the *Dr. R. Murali Krishna Family Eliminate the Stigma of Mental Illness Award Endowment Fund* through the INTEGRIS Foundation.