

How can we use Positive Psychiatry in Old Age?

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Potential Conflicts of Interest

- **No financial relationship with the pharmaceutical industry**
- **Royalty from books “Wiser” and “Positive Psychiatry”**



OUTLINE

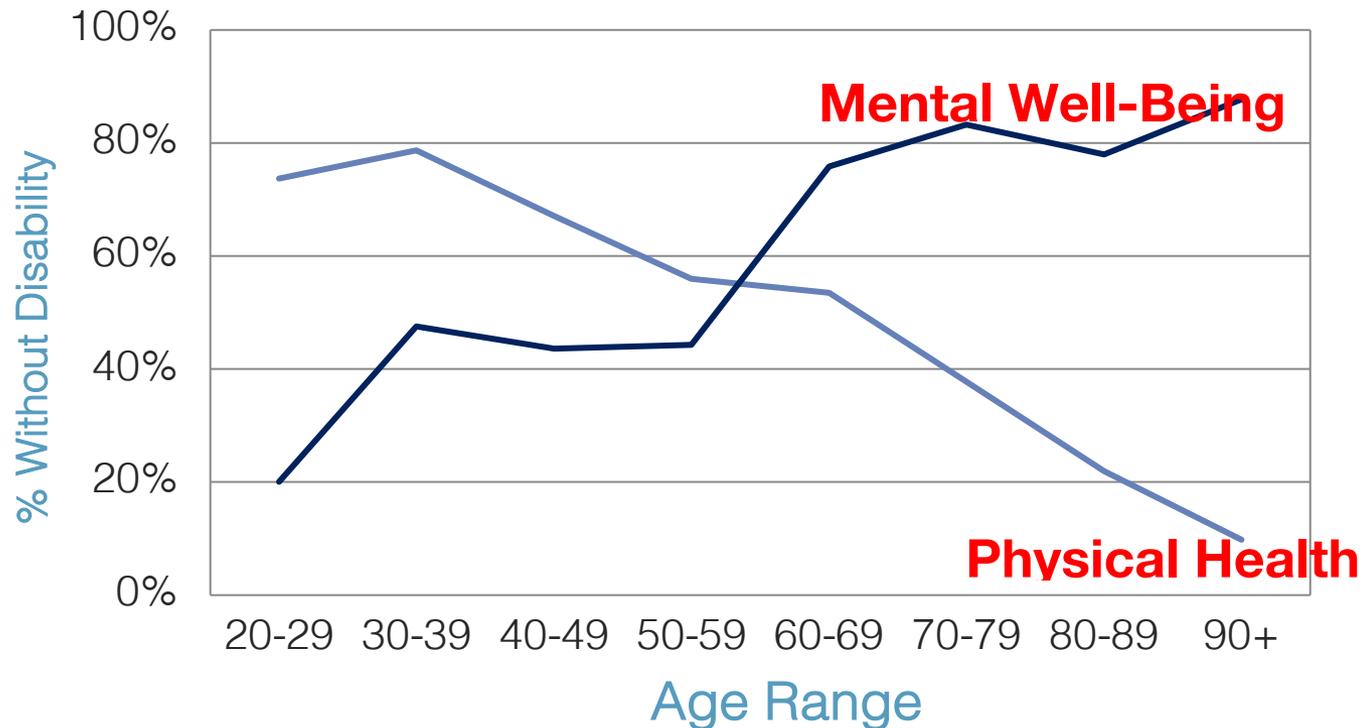
- **Positive Psychiatry**
- **Wisdom and Aging**
- **Loneliness vs. Wisdom**
- **Positive Interventions**

Two Faces of Aging



Paradox of Aging:

Ages 21 to 100 Years (N=1,547)



(Jeste DV, et al., Am J Psychiatry, 2013;
Jeste DV, et al., J. Clin. Psychiatry, 2016)

Definition of Positive Psychiatry

- **Science and practice of psychiatry that focuses on study and promotion of mental health and well-being through enhancement of positive psychosocial factors relevant to mental or physical illnesses**

(Jeste DV & Palmer BW, Brit J Psychiatry, 2013;
Jeste DV, et al., J Clin Psychiatry, 2015)

Wellness within Illness: Schizophrenia, AIDS, & Cancer

- Well-being increases with aging – Healthy survivor bias is not the primary explanation
- A sizable minority of the patients had scores in the “normative” range
- Well-being correlated with levels of resilience, optimism, and other positive traits, but not with other demographic or illness-related variables

(Moore et al., J Clin Psychiatry, 2013; Zlataar et al., Psycho-oncology, 2014;
Palmer et al., Schiz Res 2014)

Enablers of Health & Longevity

- **Resilience**: In physically ill patients, associated with medically desirable behaviors (self-care, treatment, & exercise adherence, health incl. pain), and greater longevity (Lamond et al., 2008; Shen & Zeng, 2010; Stewart & Yuen, 2011)
- **Optimism (83 studies)**: Better cardiovascular outcomes, physiological markers (including immune function), cancer outcomes, and mortality (all $p < .001$) (Rasmussen, et al., Ann Behav Med 2009;37:239-256)
- **Social Engagement (148 studies; N >300,000)**: 50% increased likelihood of survival among socially engaged people (Holt-Lunstad, et al. PLoS Med 2010; 7: e1000316)

Social Connections are Very Special



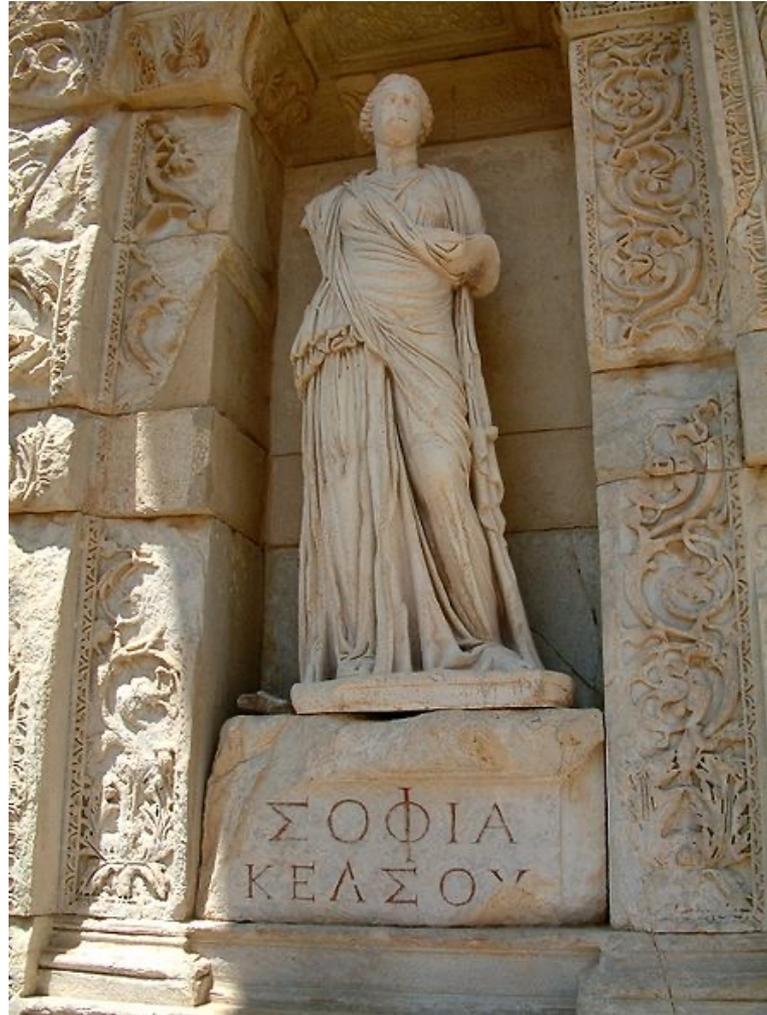
Humans need others to survive. Social connection is crucial to human development, health, and survival. The evidence supporting this contention is unequivocal. There are perhaps no other factors that can have such a large impact on both length and quality of life, from the cradle to the grave.

--- Holt-Lunstad, JM, et al., Am Psychol. 2017. 72: 517–530

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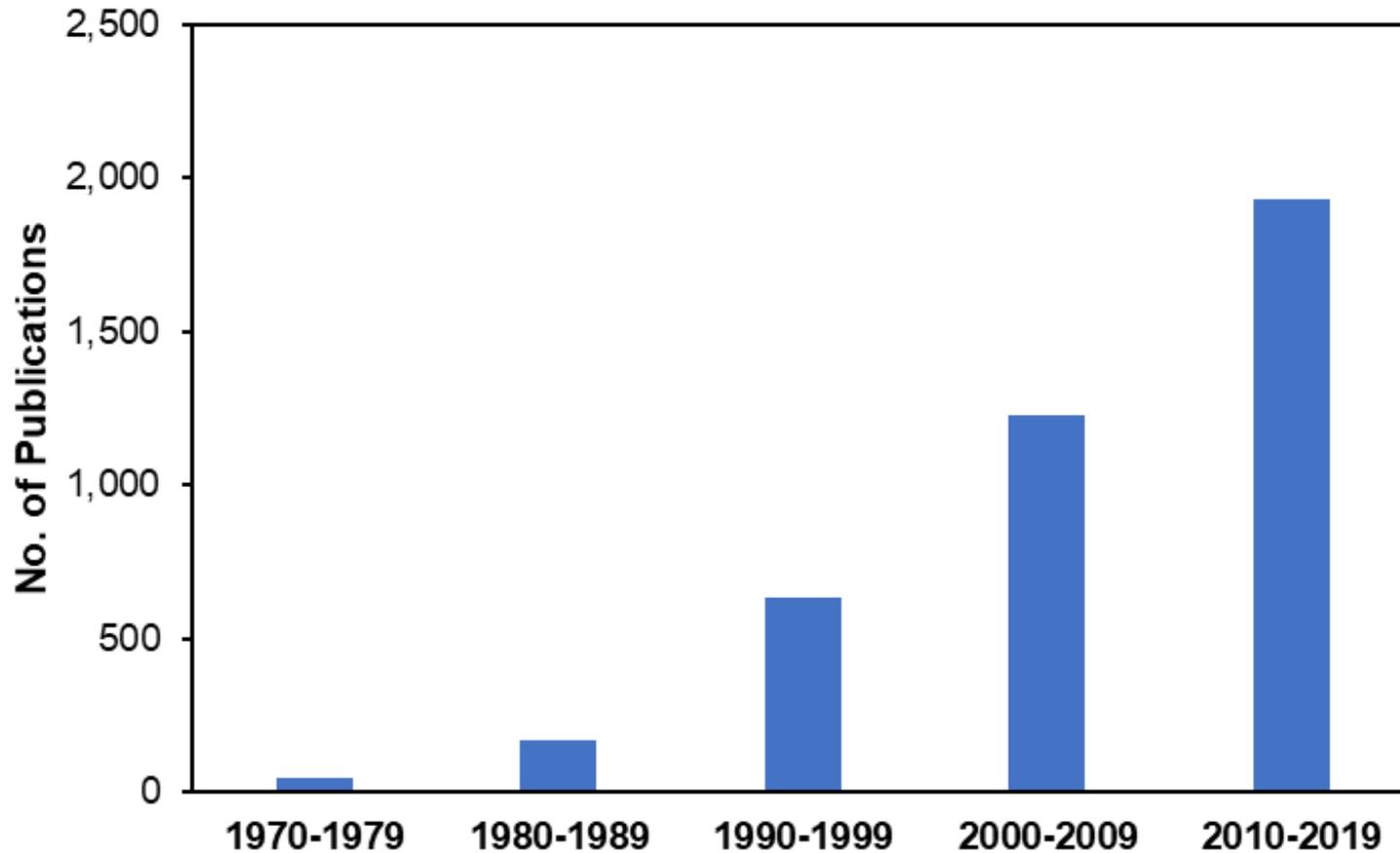
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SOPHIA: Personification of Wisdom

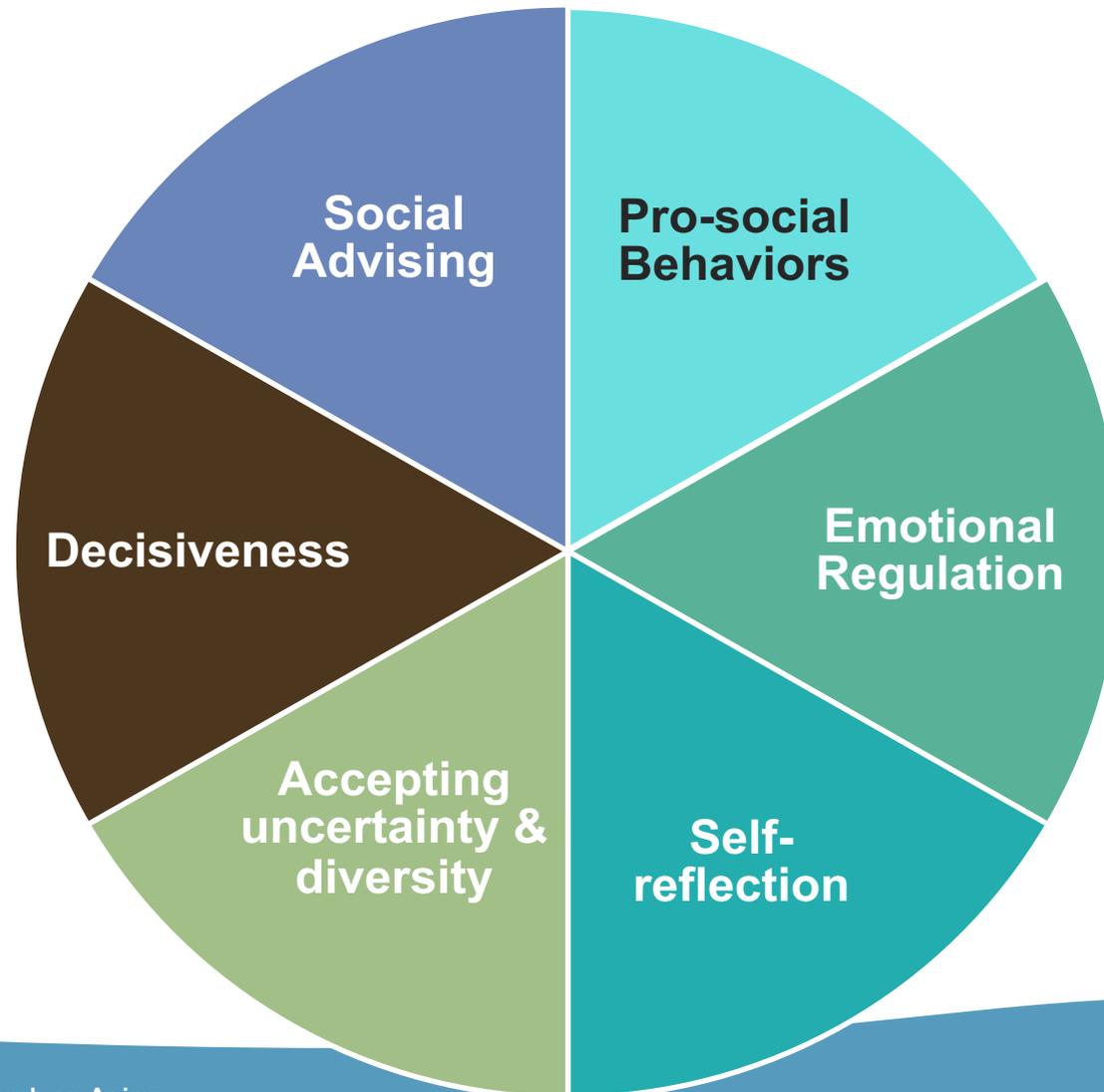


Published Papers on “Wisdom” by Decade

(Jeste & Lee, Harvard Rev Psych, 2019)



Wisdom: A Multi-component Trait

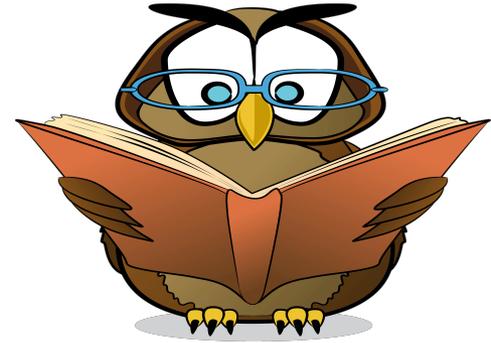


San Diego Wisdom Scale (SD-WISE) or Jeste- Thomas Wisdom Index



- Total 28 items, each to be rated on a 1-5 scale (“strongly disagree” to “strongly agree”)
 - Good to excellent psychometric properties
 - Examples of items:
 - “It is important that I understand the reasons for my actions.”
 - “I have trouble thinking clearly when I am upset.”
- (Thomas ML, et al., J Psychiatric Research, 108:40-47, 2019;
Jeste DV, et al., JPR, 2020)

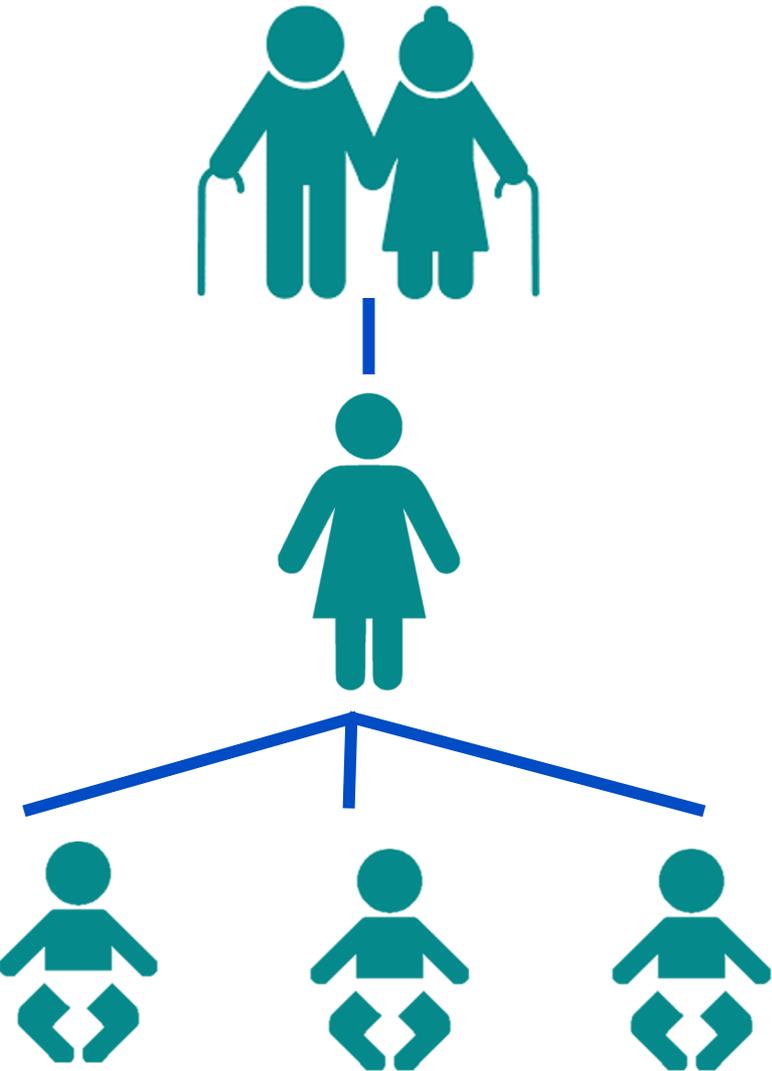
Abilities that Tend to be Better in Older Adults than in Youth



- Emotional regulation
- Positivity: Favoring positive emotions & memory
- Empathy and Compassion
- Self-reflection
- Experience-based decision making

(Carstensen et al., 2004; Mather et al., 2004, Birditt et al., 2005, Kennedy et al., 2004, Brassen et al., 2012; Meeks & Jeste, 2009; Bangen, et al., 2013; Helmuth et al., 2003; Jeste et al., 2010; Grossman, et al., 2010; Worthy, et al., 2011)

Grandmother Hypothesis Of Wisdom



- **Grandmother involvement in raising grandchildren helps children's fertility (+ well-being & longevity)** (Lahdenpera, et al., Nature, 2004; Foster et al., Science, 2012; Hawkes & Coxworth, Evol Anthropol, 2013)
- **Grandparent genes? - Variants of CD33 and APO-E** (Schwarz, et al., PNAS, 2015)
- **Transmission of social cognition & cultural values like cooperation to grandchildren** (Gopnic, et al., and Hawkes, Philosoph. Trans. Royal Soc. B - Biol. Sci., 2020)

Effects of Grandparenting on Behavior Problems in Grandchildren

(Attar-Schwartz, et al., J Family Psychology, 23:67-75, 2009)

- 1,515 secondary school students (age 11-16) in UK
- Greater grandparent involvement was associated with fewer emotional problems, more prosocial behavior, and reduced adjustment difficulties, especially among teenagers from lone-parent and step-parent families



Inter-Generational Activities Benefit both Generations

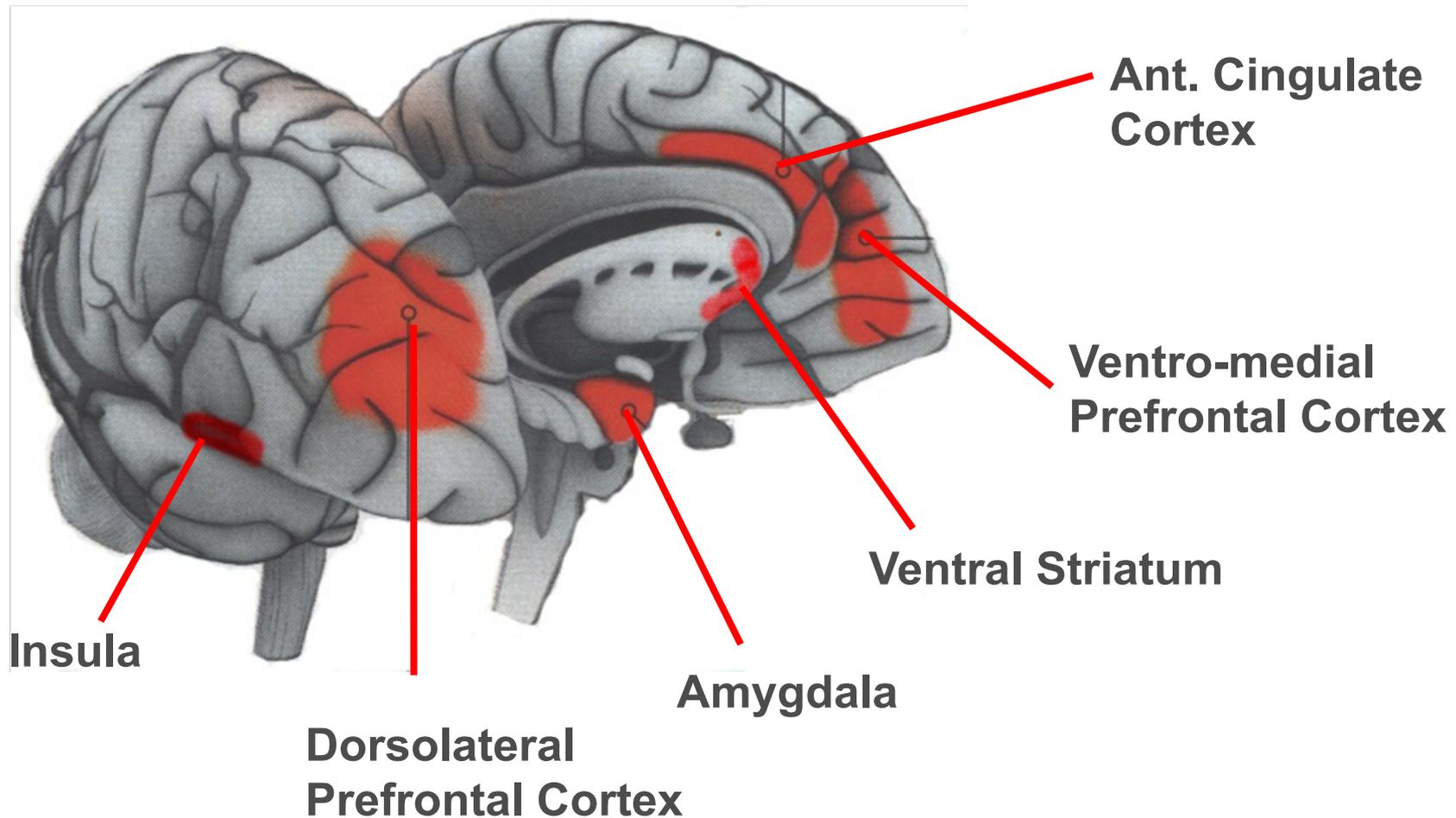


- Experience Corps: Trained older adult volunteers served in public elementary schools
- Outcomes:
 - Improvement in children's grades & happiness
 - Enhancement of seniors' mental & physical health, biomarkers of stress & aging in blood & urine, and hippocampal volume on brain MRI

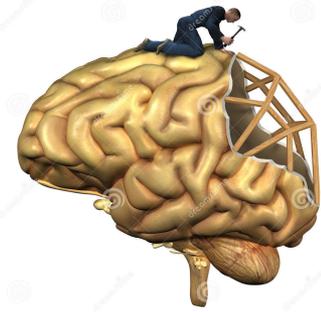
(Parisi, JM, et al., *Educational Gerontology*, 35, 867-879, 2009)

Brain Regions Involved in Wisdom

(Meeks & Jeste, Arch Gen Psych 2009)



Neuroplasticity with **Active** Aging



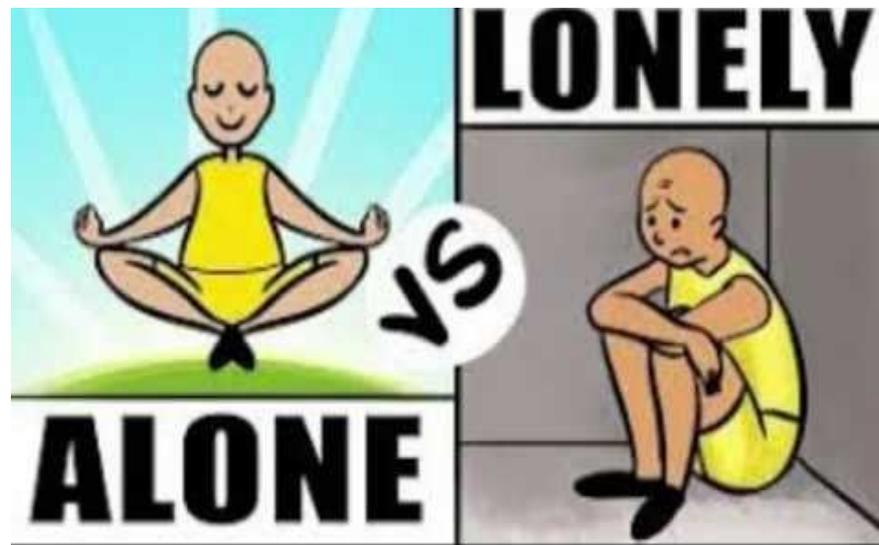
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- Greater recruitment & more efficient utilization of neuronal networks
- Synaptogenesis & neurogenesis in selected subcortical brain regions
- Diminished amygdala activation with negative emotional stimuli, regret, and fear → Positivity
- **Caveat:** Cognitive decline begins to overwhelm neuroplasticity in older old people

(Gage, et al., 2002; Mather, et al., 2004; Dennis & Cabeza, 2008; St Jacques, et al., 2009; Eyler, et al., 2011; Brassens, et al., 2012; Bangen, et al., 2012)

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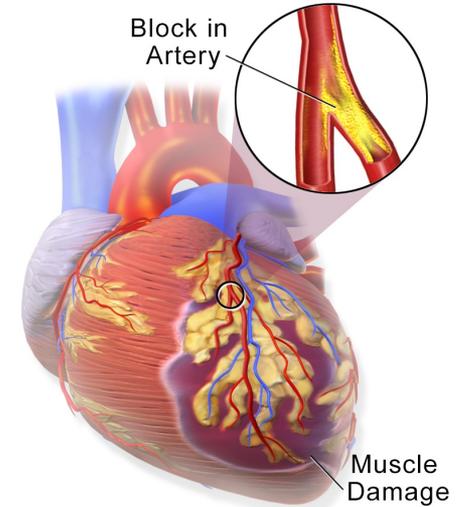
Loneliness vs. Social Isolation

- **Loneliness** = Subjective distress caused by a feeling of being alone (perceived isolation)
- **Social Isolation** = Inadequacy of social relationships (objective isolation)

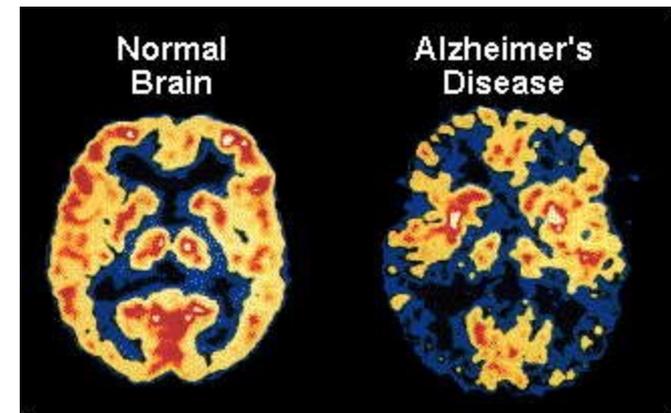
(Cacioppo and Cacioppo, 2018)

Loneliness Increases the Risk for Major Diseases

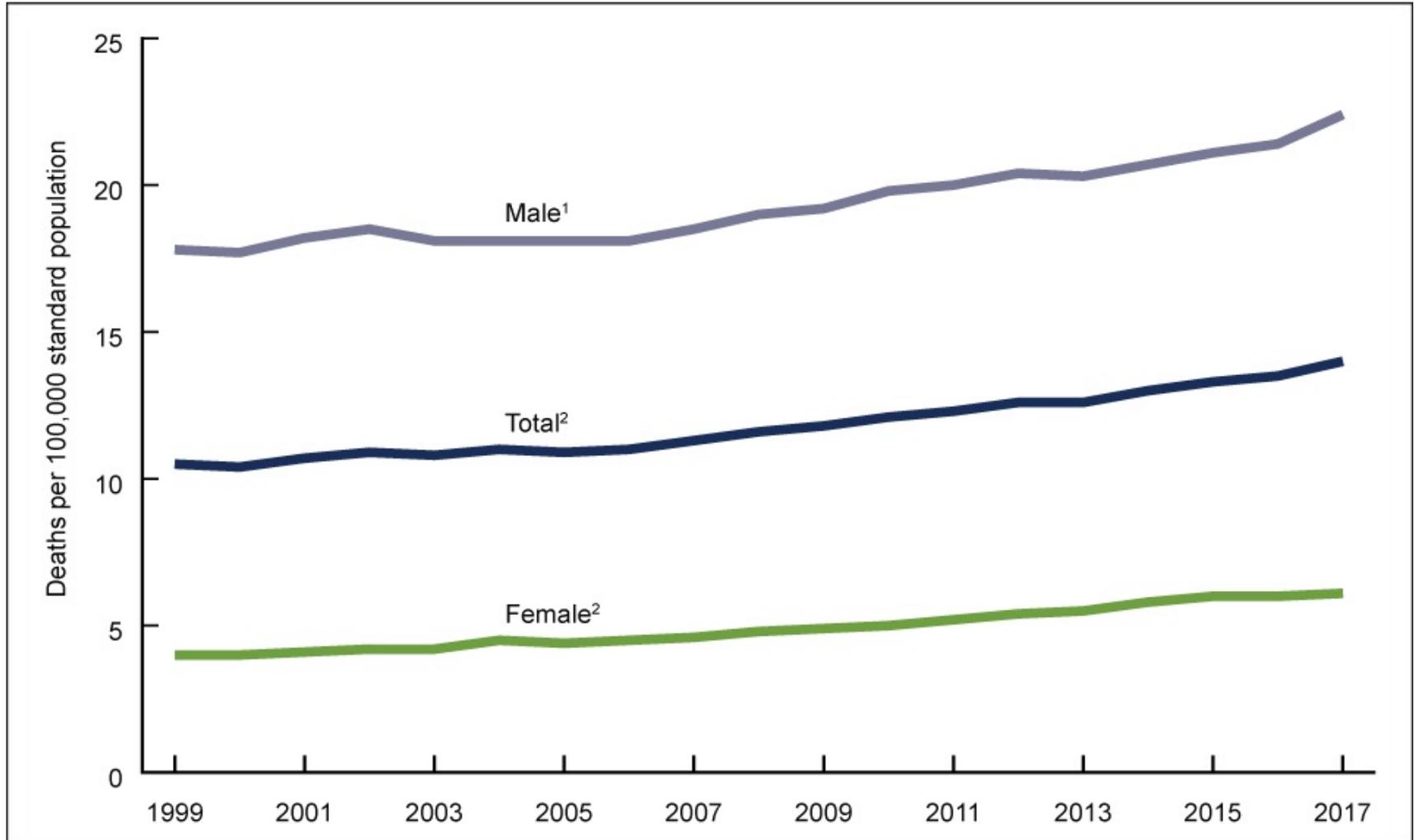
- Heart disease
- Diabetes
- Obesity
- Major depression with suicide
- Opioid and alcohol use
- Anxiety disorders
- Alzheimer's disease and other dementias



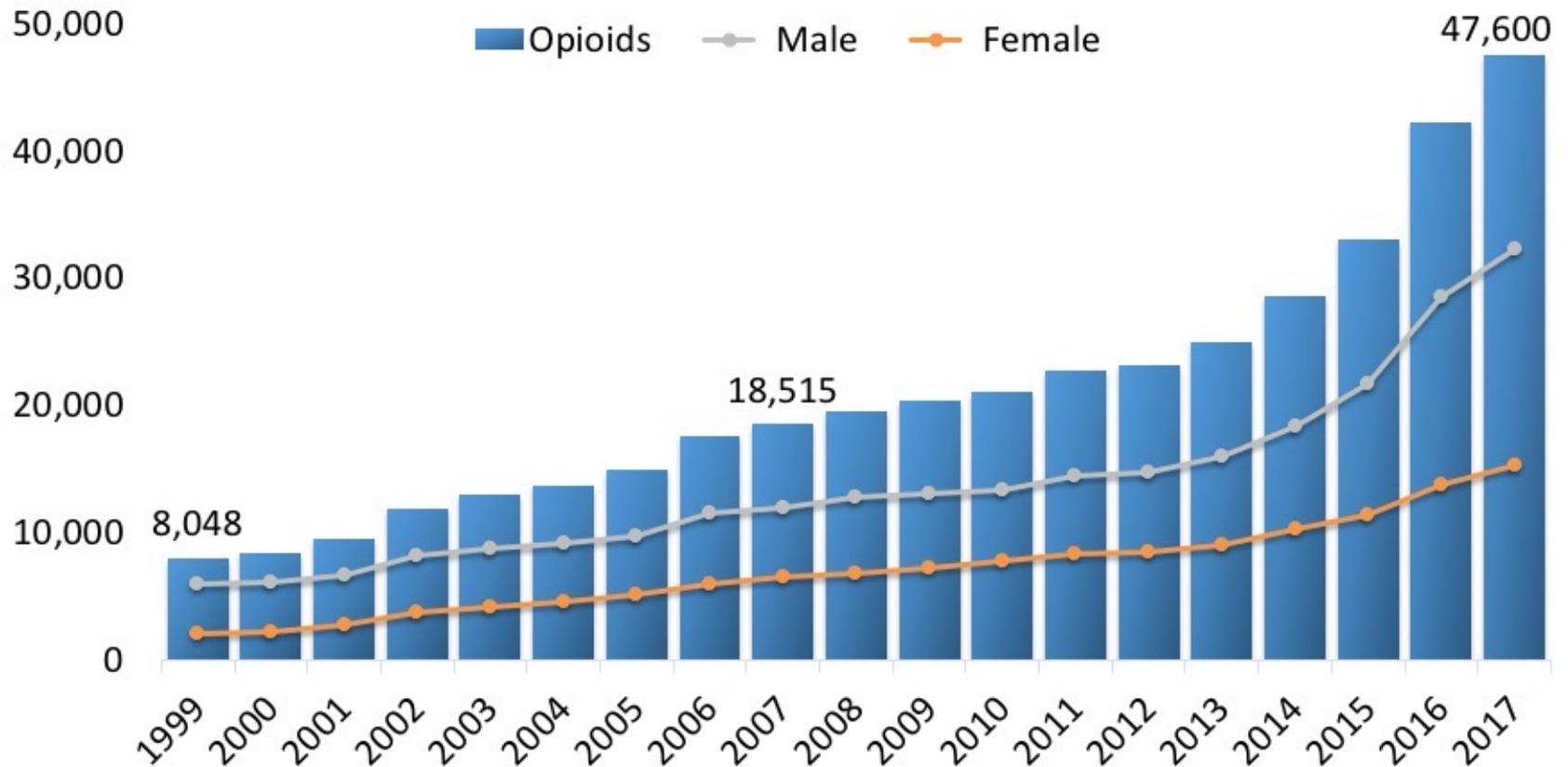
Heart Attack



US Suicide Rates Increased by 33% in 2 Decades (1999 – 2017) (CDC Statistics)

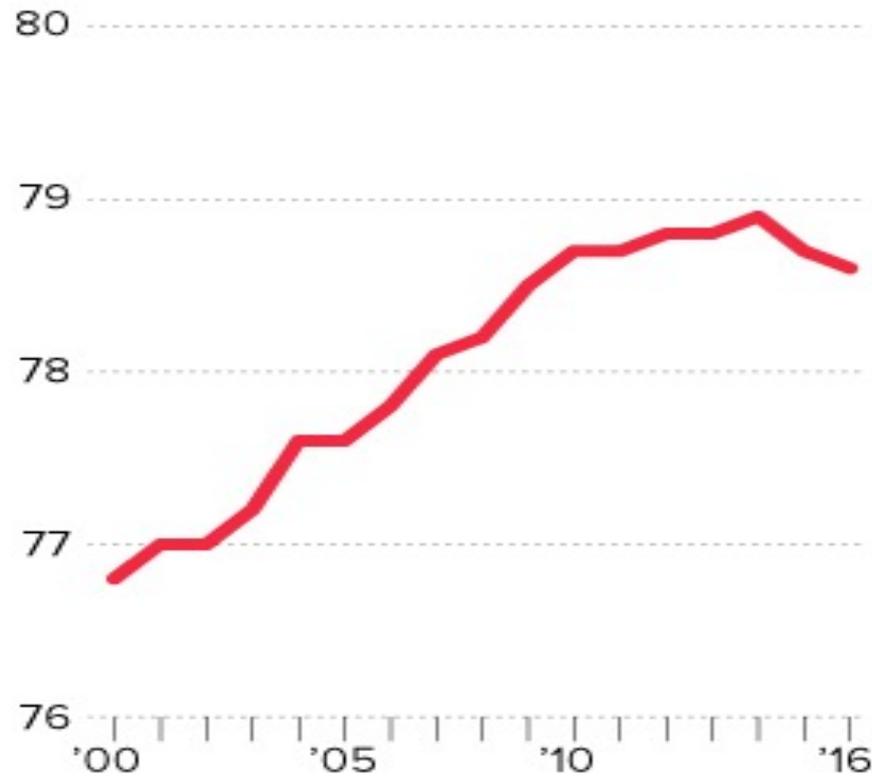


Mortality from Opioid Abuse (1999-2017)



Source: : Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2017 on CDC WONDER Online Database, released December, 2018

Decline in Average Lifespan in the US



Prevalence of Psychopathology during Covid-19 Pandemic

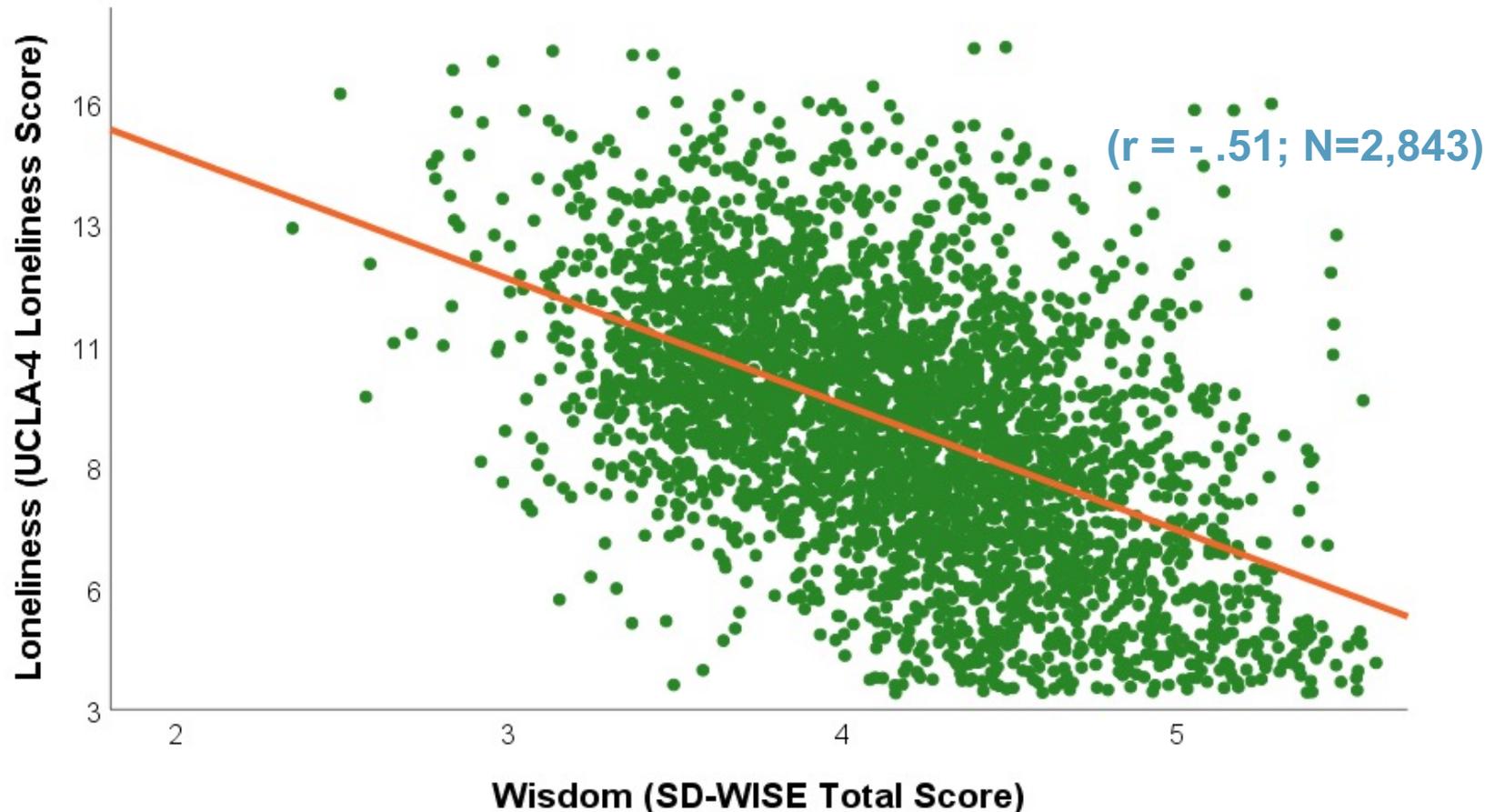


Lower prevalence of psychopathology & higher resilience in older adults (Vahia, Jeste, Reynolds, JAMA, 2020)

Survey of 5,186 US adults: Prevalence of psychopathology was 15% in adults over age 65, and 75% in adults aged 18-24 years (Czeisler, et al., JAMA Network Open, 2021)

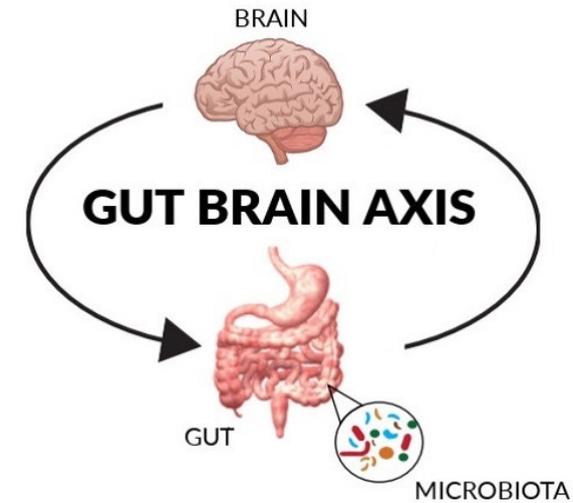
Loneliness vs. Wisdom: mTurk: Amazon-based Survey

(Nguyen, et al., J Clin Psychiatry, 2020)



Gut Microbiome – Loneliness vs. Wisdom

(Nguyen TT, et al., Front. Psychiatry, 2021)



- Center for Microbiome Innovation – 16S rRNA
- 184 adults (age 28-97 years)
- Alpha and Beta diversity measures of phylogenetic richness were associated with higher levels of compassion, wisdom, and social engagement, and lower level of loneliness

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Positive Psychiatry in Clinical Practice & Training

- Addition to (and not a substitute for) current practice
- Assessment of well-being, personal strengths, perceived stresses, and lifestyle – by completing forms in waiting room and at home prior to visit
- Identification of treatment targets and interventions
- Use of technology

Prevention of Mental Illnesses



- Primordial: Social determinants of (mental) health
- Primary: Post-MI or post-stroke depression
- Secondary: Suicide attempts; PTSD after personal or community disasters
- Tertiary: Reversible dementias
- Quaternary: Iatrogenic conditions – anti-cholinergic confusion or delirium

Psychosocial Interventions for Older Schizophrenia Patients

NIMH-funded RCTs showed significant improvement with manualized psychosocial interventions in older patients:

- Cognitive Behavioral, Social Skills Training (CBSST) (Granholtm)
- Functional Adaptation Skills Training (Patterson)
- Vocational Rehabilitation (Twamley)
- Mobile Interventions (Depp)

Positive & Preventive Healthcare

Dx:

Schizophrenia

Rx:

Antipsychotic/s

+ Supportive
therapy



Rx: Antipsychotic/s

CBT + SST

Long walk 5 x week

Socialization

Healthy Diet

Sleep hygiene

Job or volunteering

Positive attitude



Interventions to Enhance Wisdom Components

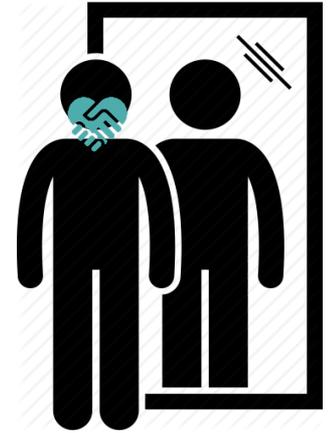
(Lee, et al., JAMA Psychiatry, 2020)



- **57 RCTs to enhance:**
 - Empathy/Compassion/Altruism, Emotional regulation, and Spirituality
- **Participants:** People with mental illnesses, people with physical illnesses, and those from general population
- **47% of studies reported significant enhancement of a wisdom component (moderate to large effect size)**

Wisdom Exercises

- “3 Good Things”
- Volunteering
- Meeting with people who are different
- Self-reflection
- Self-kindness
- Serenity Prayer



Reducing Stress and Improving Brain Function

- 2-month Mindfulness-Based Stress Reduction reduced inflammation in the blood
- Daily Meditation for 6 months increased cell life, and also white matter integrity on imaging

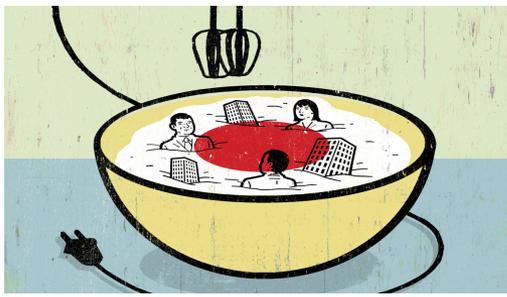
(Creswell et al 2012; Jacobs et al 2010; Caria et al 2007; Vinogradov, et al., 2009; Tang et al., 2010; Eack, et al., 2010)



brain



bra



Societal Wisdom?



- Today's highly stressed, polarized, angry, anxious, and depressed society
- Modern behavioral pandemic of loneliness, suicides & opioid-related “deaths of despair”
- Need for teaching “soft skills” of wisdom (compassion, self-reflection, acceptance of diverse perspectives) to students, businesses, and politicians?

(Jeste, et al., JAMA Psych, 2020)

Transforming a Lonely, Distressed, and Polarized World into Happier, Healthier, and Wiser Society



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