



# The Pandemic of Loneliness for Medical and Wellness Professionals

David E Sharp, PhD.



# Is Loneliness the Same as Being Alone?

- I wrote these slides alone in my office, but I never felt lonely
- The same machinery that makes us lonely also makes us capable of
  - Generosity
  - Kindness
  - Empathy



## The ecological dominance-social competition model

“...Humans had in some unique fashion become so ecologically dominant that they in effect became their own principal hostile force of nature, explicitly in regard to evolutionary changes in the human psyche and behavior...the real challenge in the human environment throughout history that affected the evolution of the intellect was not climate, weather, food shortages, or parasites—not even predators. **Rather, it was the necessity of dealing continually with our fellow humans in social circumstances that became ever more complex and unpredictable as the human line evolved.** Social cleverness, especially through success in competition achieved by cooperation, becomes paramount...nothing would select more potently for increased social intelligence...than a within-species co-evolutionary arms race in which success depended on effectiveness in social competition.”

(Alexander, 1990a, pp. 4-7)



## What did we do with our time?

- ▶ Bipedal locomotion ~2 million years before significant brain growth
- ▶ Tool use ~500,000 years before significant brain growth
- ▶ Earliest documented agriculture in ~8500 BC
- ▶ Being social around a fire requires tolerance and appreciation of others



# Defining Loneliness

- ▶ What is the opposite of Thirsty?
- ▶ What is the opposite of being in Pain?
- ▶ Then what is the opposite of Lonely?



## Comparative stats of savannah dwellers 200,000 years ago

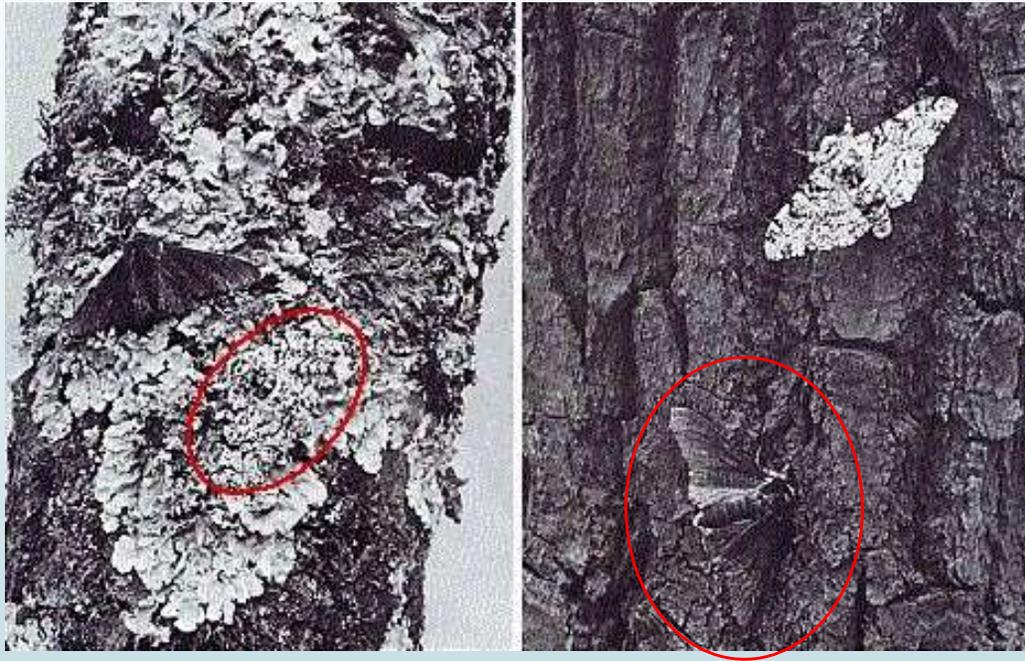
### Lion (*Panthera leo*) 200kya

- ▶ Tepetum Lucidum
- ▶ Can be 500 pounds
- ▶ Average 8 feet long
- ▶ Can run 36 mph
- ▶ Quadrupedal for stability and speed
- ▶ 1.5 inch long claws
- ▶ 3 inch long canines
- ▶ Roaring heard up to 5 miles
- ▶ Rippling with muscles
- ▶ 12 foot vertical/36 foot horizontal leap
- ▶ King of the savannah

### David (*Homo sapiens*) 200 kya

- ▶ Night blind
- ▶ Currently about 240 pounds
- ▶ 6 foot 4
- ▶ Can run 15 mph
- ▶ Bipedal for distance
- ▶ Bites his finger nails
- ▶ Half inch long canines
- ▶ Screaming heard up to 1 mile
- ▶ Could lose a little weight
- ▶ 3 foot vertical/9 foot horizontal leap
- ▶ Was almost eaten by a lion 2 years ago in Uganda

## Against environment: Peppered Moth



## Between species: Wolf and Rabbit



## Within species (Honesty Displays)



## Within species (Dominance Displays)





# Our brain is a Swiss Army Knife

- ▶ Against environment (Weather, food)
  - ▶ Brain
- ▶ Between species (Catching prey/avoiding predators)
  - ▶ Brain
- ▶ Within species (Honesty Displays)
  - ▶ Brain
- ▶ Within species (Dominance Displays)
  - ▶ Brain

# Elimination of External Pressures/Demands of Social Living

## Lion (*Panthera leo*) today

- ▶ Tepetum Lucidum
- ▶ Can be 500 pounds
- ▶ Average 8 feet long
- ▶ Can run 36 mph
- ▶ 1.5 inch long claws
- ▶ 3 inch long canines to hunt
- ▶ Roaring heard up to 5 miles
- ▶ Rippling with muscles
- ▶ 12 foot vertical/36 foot horizontal leap
- ▶ Never left the savannah

## David (*Homo sapien*) today

- ▶ Fire, Lanterns, Flashlights, Electricity
- ▶ 240 pounds
- ▶ 6 foot 4
- ▶ Drives an Electric Car and a motorcycle
- ▶ Has a gun
- ▶ Hunts pizzas in the frozen section
- ▶ Cell Phone connects me to the world
- ▶ (unused) Gym membership
- ▶ 3 foot vertical/9 foot horizontal leap
- ▶ Watches lions on Discovery Channel



## Because teamwork is so vital to human survival, loneliness is the brain being thirsty

- ▶ If I'm lonely and expecting a negative and nasty world and you show me a picture of something negative, I'm focused on that picture
- ▶ Lonely and non-lonely people experience the same number of uplifts and hassles, but the lonely people rate the positive things as less positive
- ▶ If you keep track of what makes you happy in a normal day, most of those will be social events



## Loneliness is stigmatized

- ▶ If you are hungry, you can't just get over it
- ▶ If you roll into a fire, you don't just get over it
- ▶ 1984 confidants was 3, 2005 it is zero<sup>1</sup>

<sup>1</sup>McPherson, M., Smith-Lovin, L., & Brashears, M. (2006). Social Isolation in America: Changes in Core Discussion Networks over Two Decades. *American Sociological Review*, 71(3), 353-375.



# Loneliness is a danger signal

## **State of Hypervigilance**

- ▶ First night at a hotel you sleep worse than your second night
- ▶ Snake or curved stick?

## **Reduces trust in others**

- ▶ More hostile to those around you
- ▶ Less willing to take another person's perspective
- ▶ Lonely people don't display as good social skills

## **Diminishes our ability to recover and recuperate**

- ▶ Reduce sleep
- ▶ Reduced health behaviors



# Loneliness's impacts on mental health

- ▶ Personality disorders and psychosis<sup>2</sup>
- ▶ Suicide<sup>3</sup>
- ▶ Impaired cognitive performance and cognitive decline over time<sup>4</sup>
- ▶ Risk of Alzheimer's Disease<sup>5</sup>
- ▶ Diminished executive control<sup>6</sup>
- ▶ Increased risk of Depressive Symptoms in Women<sup>7</sup>
- ▶ Perceived stress, fear, anxiety, and anger<sup>8</sup>
- ▶ Diminished optimism and self-esteem<sup>8</sup>



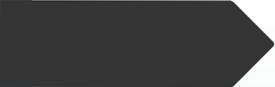
# Loneliness's impacts on physical health

- ▶ Increased morbidity and mortality
  - ▶ All-cause mortality over a 4-year follow up was predicted by loneliness<sup>9</sup>
  - ▶ Accelerates physiological aging<sup>10</sup>
  - ▶ \*Systolic blood pressure in middle-aged adults<sup>11</sup>
  - ▶ Cardio-vascular risks in young adulthood<sup>12</sup>
    - ▶ BMI, Systolic blood pressure, Cholesterol levels



# We are all away from our campfires

- ▶ How do you see that others are lonely when you are also lonely?



# Post-Traumatic Growth

- ▶ Successful diets often require a traumatic event
  - ▶ Heart attack
  - ▶ Divorce
- ▶ The Black Plague shifted into the Renaissance



Thank you



- 
- <sup>2</sup>Deniro, D. A. (1995). Perceived alienation in individuals with residual-type schizophrenia. *Issues in Mental Health Nursing*, 16(3), 185-200.
  - <sup>3</sup>Goldsmith, S. K., Pellmar, T. C., Kleinman, A. M., & Bunney, W. E. (2002). *Reducing suicide: A national imperative*. National Academies Press.
  - <sup>4</sup>Gow, A. J., Pattie, A., Whiteman, M. C., Whalley, L. J., & Deary, I. J. (2007). Social support and successful aging: Investigating the relationships between lifetime cognitive change and life satisfaction. *Journal of Individual Differences*, 28(3), 103-115.
  - <sup>5</sup>Wilson, R. S., Krueger, K. R., Arnold, S. E., Schneider, J. A., Kelly, J. F., Barnes, L. L., ... & Bennett, D. A. (2007). Loneliness and risk of Alzheimer disease. *Archives of general psychiatry*, 64(2), 234-240.
  - <sup>6</sup>Cacioppo, J. T., Hughes, M. E., Waite, L. J., Hawkley, L. C., & Thisted, R. A. (2006). Loneliness as a specific risk factor for depressive symptoms: cross-sectional and longitudinal analyses. *Psychology and aging*, 21(1), 140.
  - <sup>7</sup>Thurston, R. C., & Kubzansky, L. D. (2009). Women, loneliness, and incident coronary heart disease. *Psychosomatic medicine*, 71(8), 836.
  - <sup>8</sup>Cacioppo, J. T., Hawkley, L. C., Ernst, J. M., Burleson, M., Berntson, G. G., Nouriani, B., & Spiegel, D. (2006). Loneliness within a nomological net: An evolutionary perspective. *Journal of research in personality*, 40(6), 1054-1085.
  - <sup>9</sup>Hawkley, L. C., Thisted, R. A., Masi, C. M., & Cacioppo, J. T. (2010). Loneliness predicts increased blood pressure: 5-year cross-lagged analyses in middle-aged and older adults. *Psychology and aging*, 25(1), 132.
  - <sup>10</sup>Hawkley, L. C., & Cacioppo, J. T. (2007). Aging and loneliness: Downhill quickly?. *Current Directions in Psychological Science*, 16(4), 187-191.
  - <sup>11</sup>Hawkley, L. C., Masi, C. M., Berry, J. D., & Cacioppo, J. T. (2006). Loneliness is a unique predictor of age-related differences in systolic blood pressure. *Psychology and aging*, 21(1), 152.
  - <sup>12</sup>Olsen, R. B., Olsen, J., Gunner-Svensson, F., & Waldstrøm, B. (1991). Social networks and longevity. A 14 year follow-up study among elderly in Denmark. *Social science & medicine*, 33(10), 1189-1195.