



Depression And Anxiety: Sorry, I Was Too Stressed To Generate A Clever Tag Line

Tony Norelli, M.D.

Allstate Life Insurance

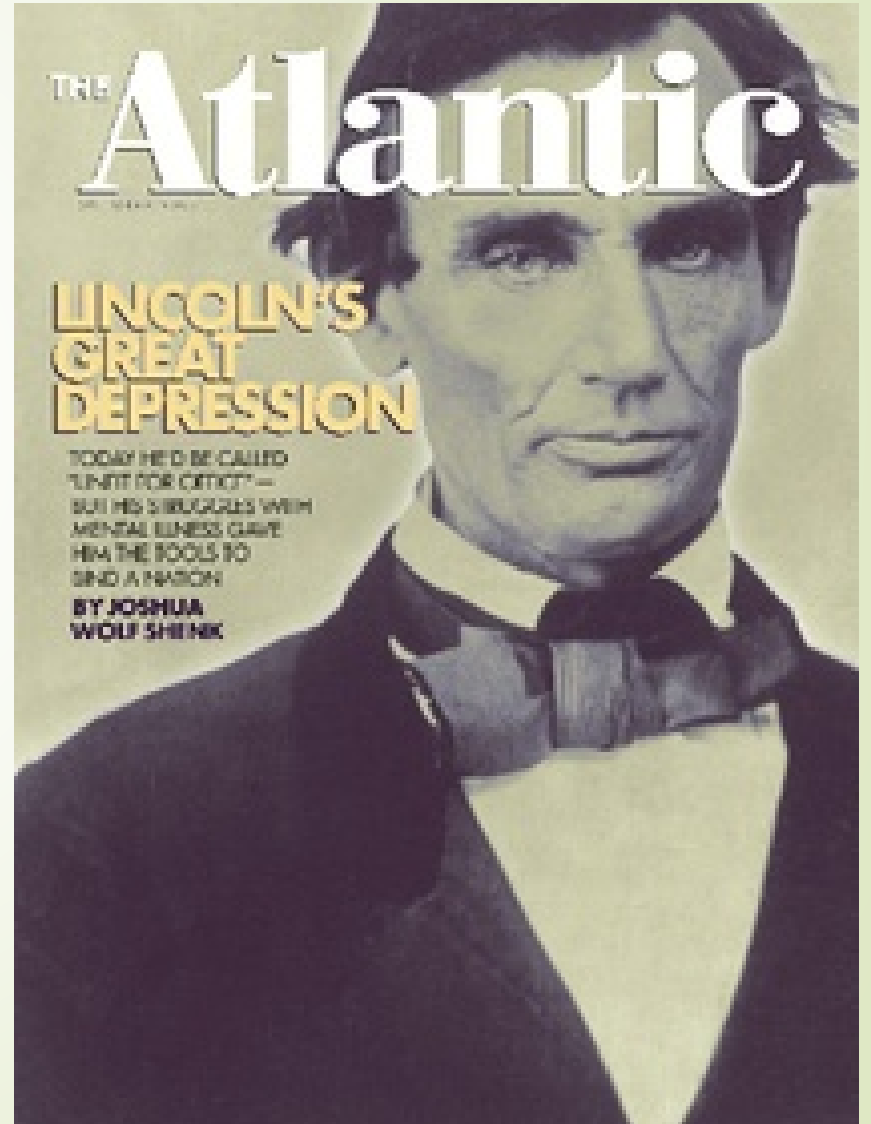
WAHLU


10/27/2016

Election Time In A Battleground State

Lincoln's Great Depression

Author: Joshua Wolf Shenk





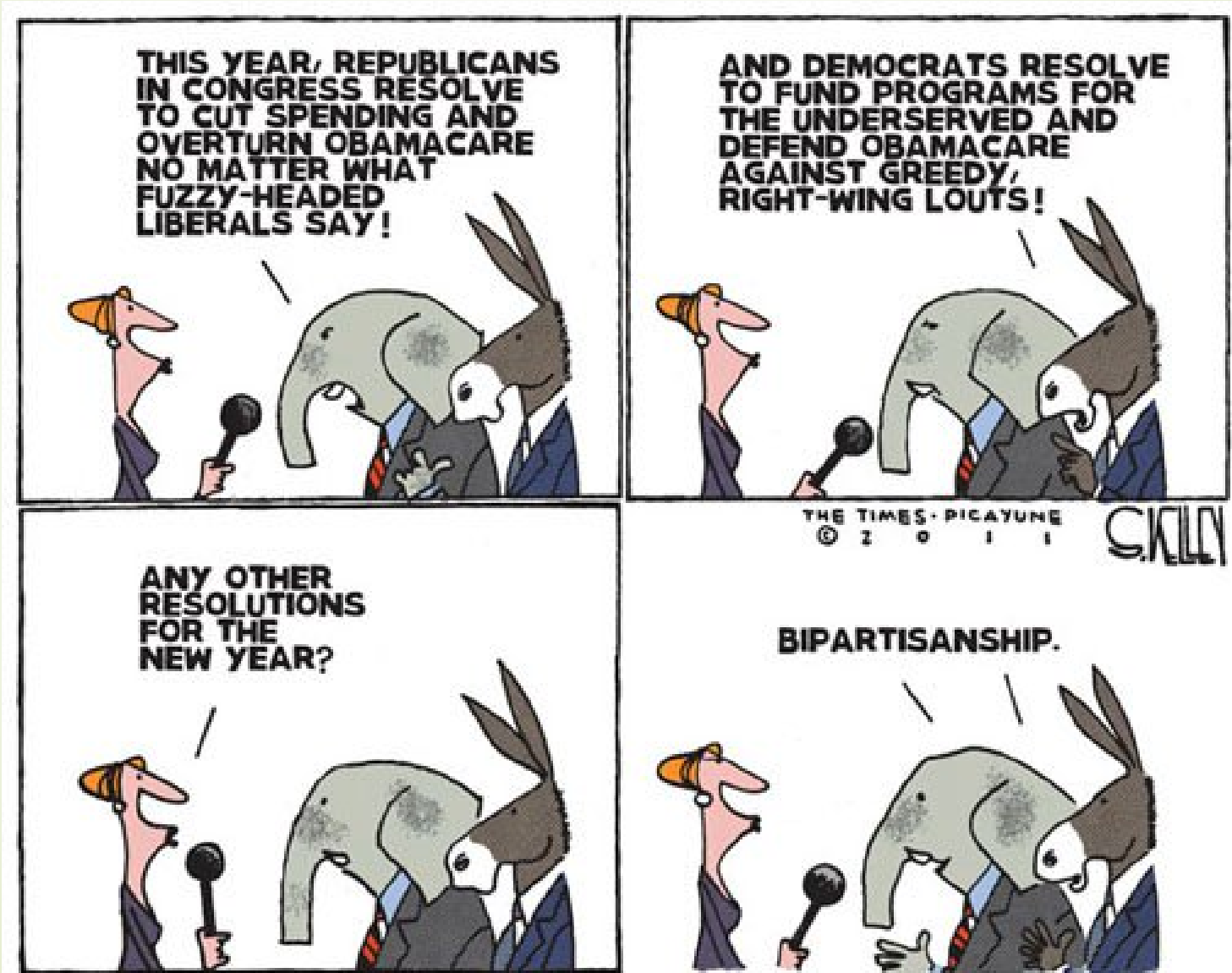
The Bigger Picture? Duke University Study, 2006

- ▶ **Mental illness in U.S. Presidents between 1776 and 1974: a review of biographical sources:** Davidson JR, Connor KM, Swartz M., J Nervous Mental Dis. 2006 Jan;194(1):47-51.
- ▶ 49% showed evidence of DSM diagnosis/diagnoses (18 of 37)
 - a. 24% (8 of 37) showed evidence of depression (Madison, J.Q. Adams, Pierce, Lincoln, Hayes, Garfield, Wilson, Hoover, Eisenhower)
 - b. 8% (3 of 37) – bipolar disorder (J. Adams, T. Roosevelt, LBJ)
 - c. 8% (3 of 37) – alcohol abuse/dependence (Pierce, Grant, Nixon)
- ▶ Other medical illnesses include CVA (Wilson; Edith Bolling Galt Wilson, his second wife, was arguably our first de facto female US president), oral cancer (Cleveland), Addison's disease (Kennedy), OSA (Taft), MI (LBJ, DDE)

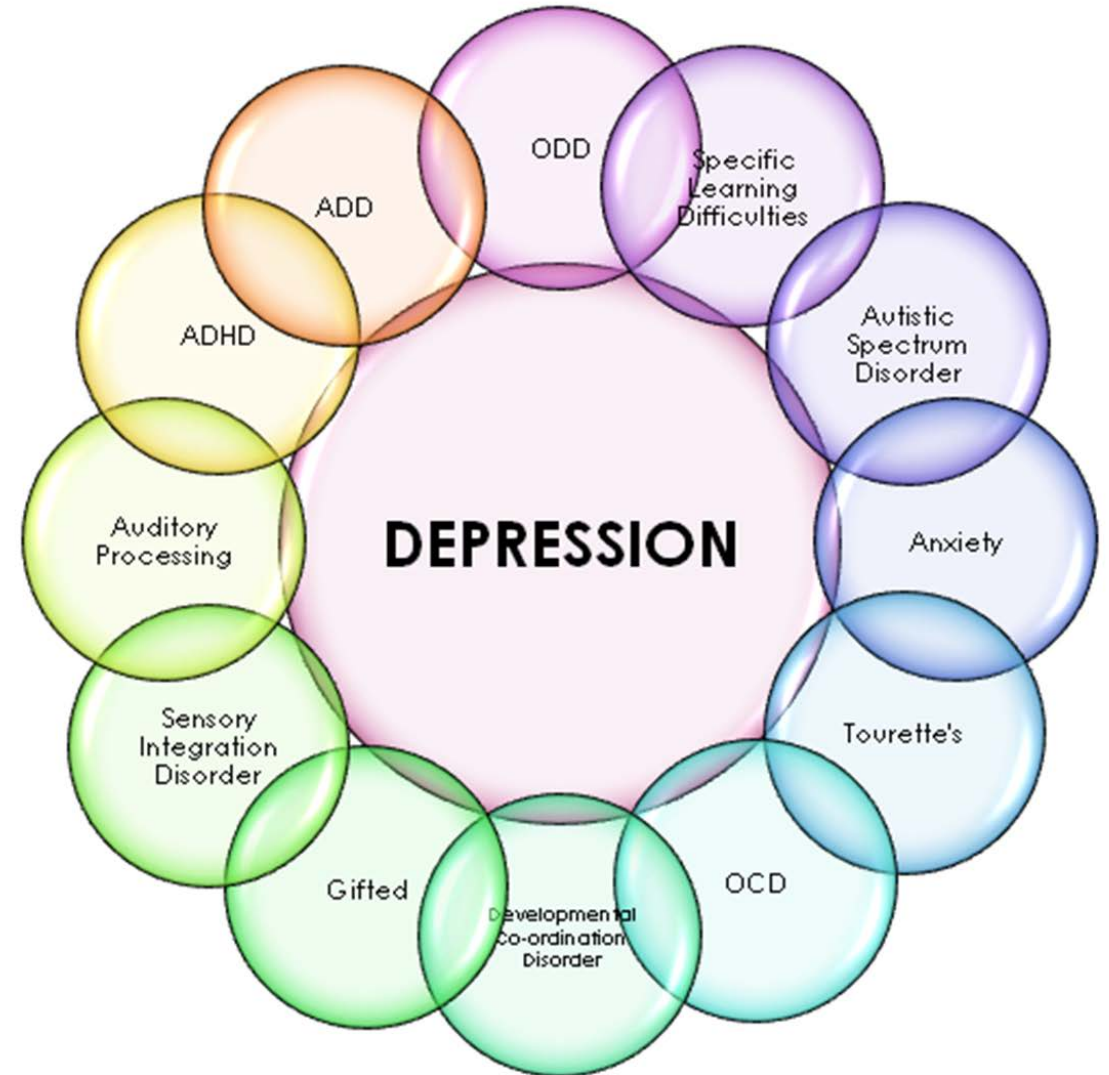
And Where Would We Be Without The Media To Generate Faux Controversy?




So... Vote Anyway. Please.




Depression And Anxiety Are Continua





Anxiety: A Rose By Any Other Name

- ▶ Acute Stress Disorder
- ▶ Adjustment Disorder with anxiety
- ▶ Agoraphobia without history of panic disorder
- ▶ Anxiety NOS
- ▶ Generalized anxiety disorder
- ▶ Obsessive-Compulsive disorder
- ▶ Panic attacks
- ▶ Panic disorder with agoraphobia
- ▶ Panic disorder without agoraphobia
- ▶ PTSD
- ▶ Social phobia
- ▶ Specific phobia



Anxiety Is Common (Epidemiological Catchment Area; Combined With National Comorbidity Survey)

- ECS and NCA estimated lifetime prevalence rates for individual anxiety disorders are:
 - a. 2.3-2.7% for panic disorder (7.1M – 8.4 M)
 - b. 4.1-6.6% for generalized anxiety disorder (12.7M – 20.5M)
 - c. 2.6-13.3% for social phobia (8.6M – 41.2M)

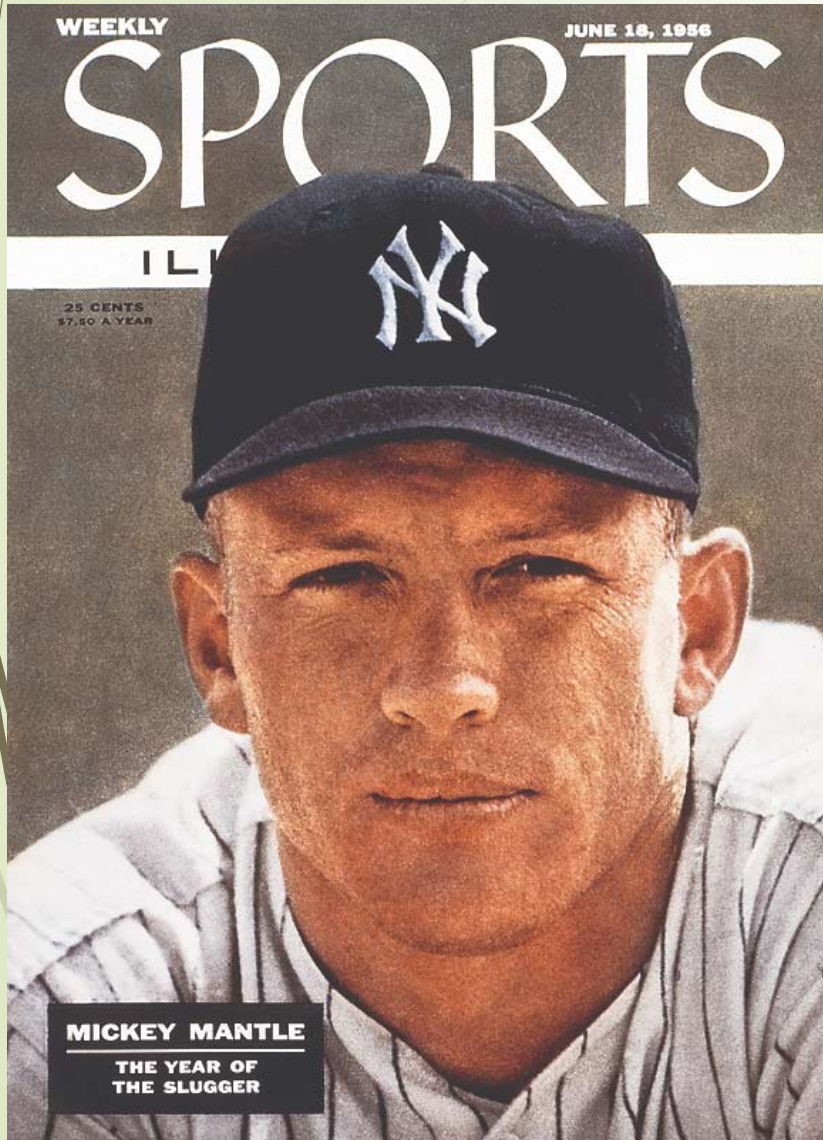
- Further, the NCS reported the following lifetime (and 30-day) prevalence estimates:
 - a. 6.7% (and 2.3%) for agoraphobia – 20.8M (7.1M)
 - b. 11.3% (and 5.5%) for simple (i.e., specific) phobia – 35M (17M)
 - c. 13.3% (and 4.5%) for social phobia – 41.2M (14M)



Anxiety Statistics

- ▶ Most common mental illness in the US
- ▶ Affects 40,000,000 adults annually (18% of adult population)
- ▶ Lifetime prevalence of anxiety disorders is approximately 28.8% in the U.S.
- ▶ Only 1/3 of affected adults seek treatment
- ▶ Many individuals choose to self-medicate rather than seek medical care. This can be done with any of the following: ETOH, tobacco, marijuana/illicit or licit drugs, food, or even pornography
- ▶ According to the WHO, mental illness is (under)estimated to be the cause of 14% of overall global disease burden. Underestimated, IMO, because this fails to take into consideration the association between mental health and other health conditions.

Anxiety: Impact On Physical Health



- History of social anxiety disorder
- Indicated that ETOH was his coping mechanism
- Admitted that ETOH hurt his performance both on and off the field.
- 6/8/95 – liver transplant recipient (controversy – received liver after 1 day on wait list; biopsy showed presence and complications of Hepatitis C, and also poorly differentiated hepatocellular liver carcinoma).
- Died 8/13/95 of Stage IV HCC.

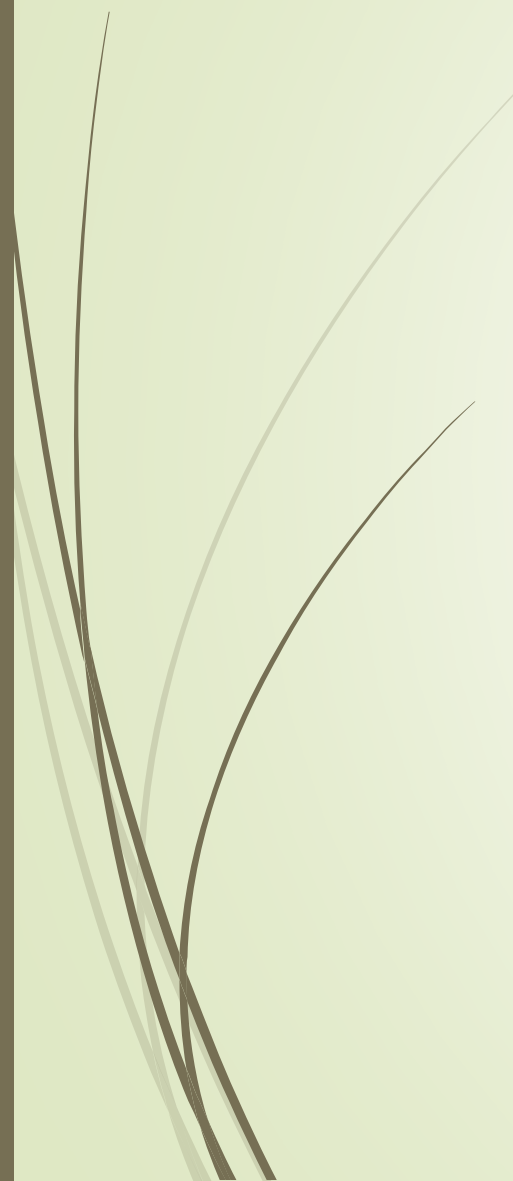


Anxiety Brings A Significant Cost Burden

- ▶ People with a diagnosed anxiety disorder are three to five times more likely to go to the doctor and six times more likely to be hospitalized for psychiatric disorders than those who do not suffer from anxiety disorders.
- ▶ Anxiety disorders cost the U.S. more than \$42 billion a year (\$60.6 Billion in 2016 dollars), almost one-third of the country's \$148 billion total mental health bill, according to "The Economic Burden of Anxiety Disorders," a study commissioned by ADAA (The Journal of Clinical Psychiatry, 60(7), July 1999).
- ▶ More than \$23 billion of those costs are associated with the repeated use of health care services; people with anxiety disorders seek relief for symptoms that mimic physical illnesses – often seeing multiple physicians because no one can give a satisfactory explanation for their symptoms.

CineLesson #427

snap
out of it.





Anxiety Outside The DSM

One mantra I use in underwriting is “the company it keeps.” For anxiety, that would include:

- ▶ Increased likelihood of smoking
- ▶ Increased likelihood of excessive alcohol use
- ▶ Increased likelihood of substance abuse
- ▶ Increased likelihood of low BMI (13-19)
- ▶ Increased use of healthcare resources
- ▶ Increased incidence of hypertension, metabolic syndrome, asthma, and peptic ulcer (Vietnam Experience study)



Less Apparent Costs Attributable To Anxiety

A 2000 WHO study indicated patients with anxiety had a:

- ▶ 40% increased chance of failing/dropping out of high school
- ▶ 40% increased chance of failing/dropping out of college
- ▶ 30% increased chance of teen pregnancy
- ▶ 60% increased chance of marital instability
- ▶ 150% chance of unemployment at the time this research was conducted



Other Burdens Attributable To Anxiety

- ▶ Underemployment due to inability to handle the demands of higher stress jobs (and higher stress jobs usually = more \$)
- ▶ Decreased quality of work performed, decreased appropriate risk taking
- ▶ Elevated risk of early death has been suggested but there are few studies that have looked specifically at anxiety and all cause mortality
- ▶ OK, if not all cause mortality, what about some causes of mortality?



Anxiety And Mortality

BMJ study looked at deaths in 68,000 middle-aged and older people that were followed from 1994 through 2004. In this study they looked only at those with "subclinical anxiety." They culled out those with depression or overt anxiety (e.g., more severe disease).

Even after controlling for smoking, ETOH, blood pressure, physical activity and diet they still saw:

- ▶ An overall 20% increase in mortality in the affected cohort over a 10 year span

And, more specifically:

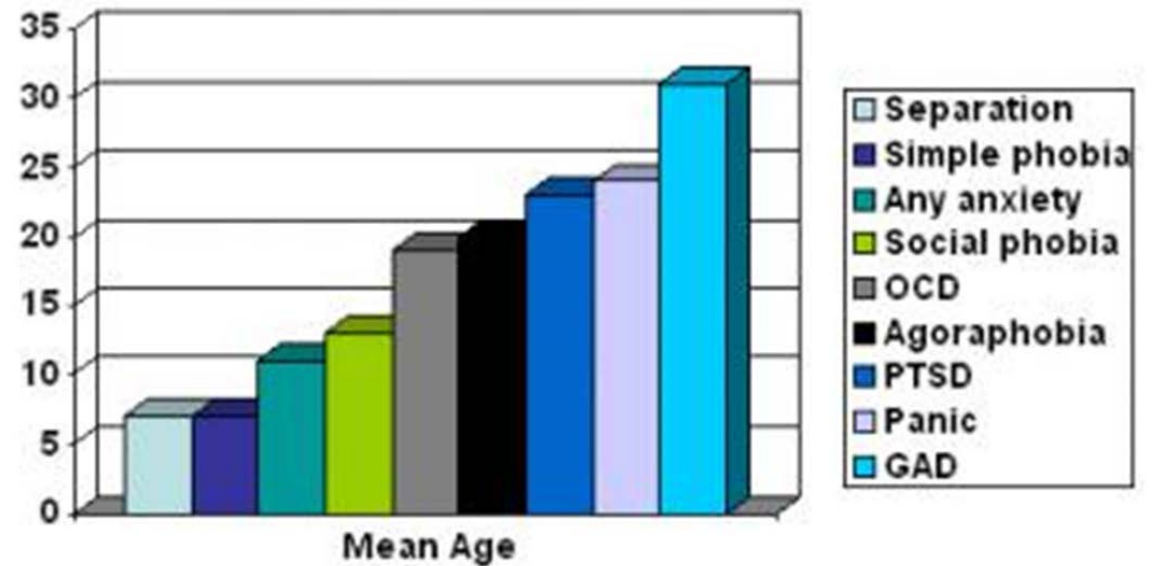
- ▶ 29% increase in death by MI or CVA
- ▶ 29% increase in deaths by "external causes" (MVA, suicide)

Won't Someone Think Of The Children?

Most anxiety disorders have childhood or adolescent onsets, and often present differently than they do in adults:

1. **Selective mutism** usually develops between ages 2-4
2. **Separation anxiety** and **specific phobias** (e.g., fear of dogs or weather taken to the extreme) has average age of onset of 7
3. **School refusal** – bimodal age of onset: 5-6 and 10-11 years

Mean Age of Onset

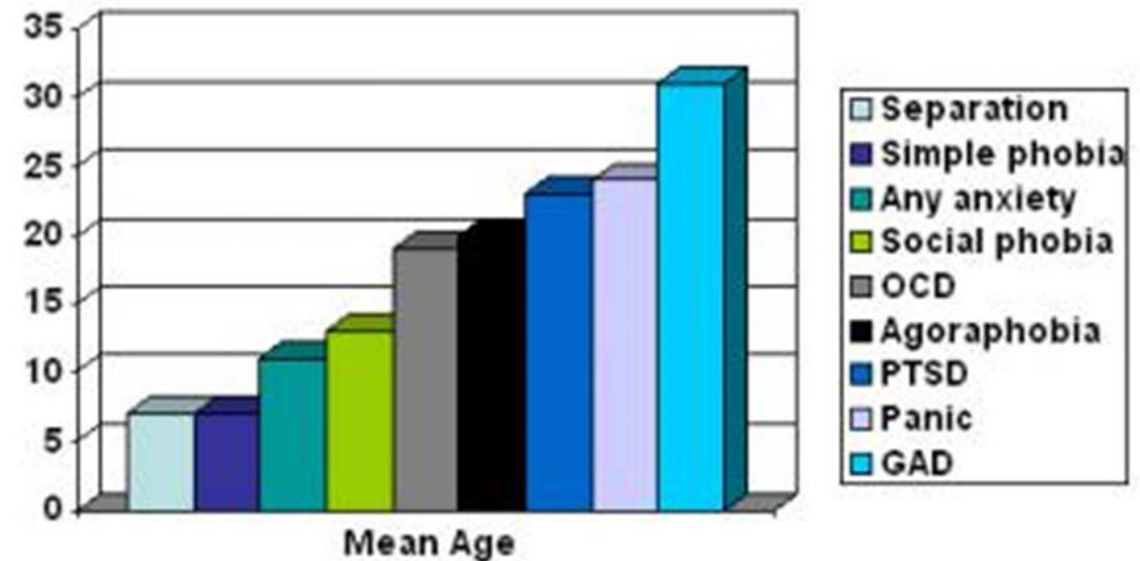



Won't Someone Think Of The Children?

Most anxiety disorders have childhood or adolescent onsets, and often present differently than they do in adults:

4. **GAD** usually starts on average at age 7 or so
5. **Social anxiety disorder** is most common in early adolescence
6. **Panic disorder** has a typical age of onset in later adolescence

Mean Age of Onset



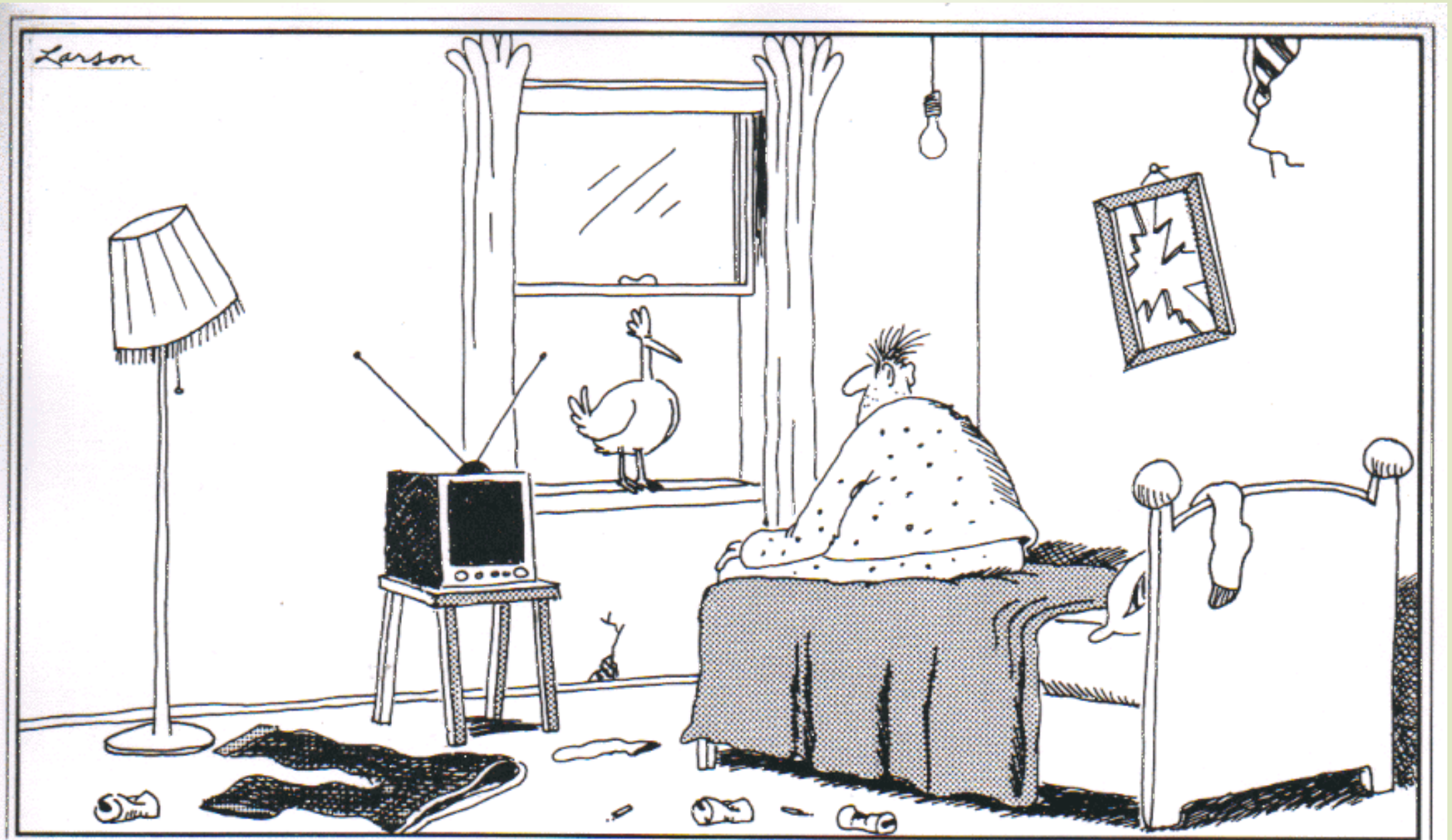


OK, So What Are Favorable Findings In A Setting Of Anxiety?

- ▶ Stability, stability, stability
 - a. Stability of medication dose
 - b. Stability in home and with work
 - c. Stability in followup
 - d. Stability in symptoms

- ▶ Insight

- ▶ Absence of PTSD (a really nasty actor on its own)



The Bluebird of Happiness long absent from his life, Ned is visited by the Chicken of Depression.



Depression By The Numbers

- ▶ Common, and very underreported.
- ▶ “Is depression a messed up response to the real world, or a real response to a messed up world?”
- ▶ Lifetime US prevalence: 17% -- about 20% in women, 12% in men
- ▶ Annual prevalence rate of 6.5%
- ▶ Depression prevalence approaches 25% in patients with chronic medical illnesses
- ▶ Rates of depression may be particularly high in diseases of the central nervous system (e.g., stroke, traumatic brain injury, Parkinson disease), cardiovascular disorders, cancer, and autoimmune disorders (e.g., systemic lupus erythematosus, rheumatoid arthritis).




More Depression Data

- ▶ Evidence from twin studies suggests that major depression has a concordance of 40-50% -- speaks to likely genetic contribution
- ▶ First-degree relatives of depressed individuals are about 3 times as likely to develop depression as the general population
- ▶ 15% of individuals with serious depression commit suicide – remember also that bipolar disorder substantially ramps up suicide risk, and bipolar disorder is often misdiagnosed as depression (especially in women, who are much more likely to have Bipolar II disorder)
- ▶ The longer depression is left untreated the more difficult it becomes to treat



Depression Risk Factors

- ▶ Prior episode of depression
 - ▶ Family history
 - ▶ Female gender
 - ▶ Postpartum state
 - ▶ Substance abuse
 - ▶ Childhood trauma
 - ▶ Stressful life events
 - ▶ Poor social support
 - ▶ Serious medical illness
 - ▶ Dementia
- 



List Of Eminent Individuals With Depression, Brought To You By Wiki And The Letter "R"

- Sergei Rachmaninoff, Russian composer and pianist
- Charlotte Rampling, English actress
- Ayn Rand, Russian-American novelist and philosopher
- Trent Reznor, American musician
- Christina Ricci, American actress
- Anne Rice, American writer
- Rainer Maria Rilke, Austrian poet
- Jake Roberts, American professional wrestler
- John D. Rockefeller, American industrialist
- Mark Rothko, American painter
- Hans Rott, Austrian composer
- Ronda Rousey, female UFC fighter
- Jessica Rowe, Australian journalist and television presenter
- J. K. Rowling, British writer
- Bertrand Russell, British mathematician and philosopher
- Winona Ryder, American actress



Postpartum Depression

- ▶ Can occur in up to 1 in 7 pregnancies (14%)
- ▶ Prior h/o depression increases risk to 25%; prior PPD diagnosis increases risk to 50%
- ▶ Can arise during pregnancy, but usually arises within weeks to months after giving birth
- ▶ For half of women diagnosed with PPD, this will be their first episode or manifestation of depression
- ▶ Usually responds well to treatment

Contrast this with the much more rare **postpartum psychosis** (1-2/1000 births, or 0.1 - 0.2%), which tends to have more abrupt onset. There is a 5% risk of suicide and 4% risk of infanticide during a postpartum psychosis.



Postpartum Depression

- ▶ Women who had been diagnosed with depression prior to becoming pregnant were much more likely to be depressed 1 year out from giving birth (about 50% of total)
- ▶ Of women who did not seek treatment for PPD 30% were still depressed 3 years after giving birth
- ▶ Greater severity of PPD symptoms portended longer duration of depression and greater resistance to treatment.
- ▶ Other risk factors for PPD included strong correlation with poor partner relationships, stress, premorbid depression (and weaker correlations with younger maternal age and lower socioeconomic status)



Depression Caveats

- ▶ The majority of depression diagnoses are made in primary care clinics
 - ▶ Large studies (>50,000 people) have shown that primary care MDs may miss the diagnosis in half or more of depressed individuals (50+% false negatives)
 - ▶ Meta-analyses estimate that in primary care clinics depression might be misdiagnosed in 15-20% of cases (15-20% false positives)
-
- ▶ Geez, Primary Care – get it together!

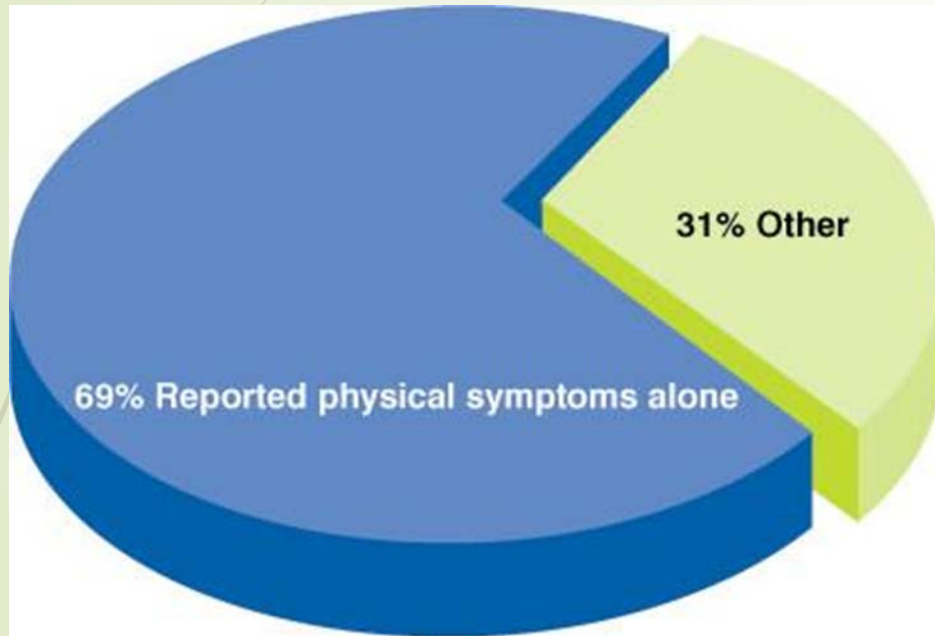


Then Again...In Primarycareland

- ▶ Pressures to increase “throughput” leads to shorter clinic visits
- ▶ Primary Care MD now enters info into computer during the visit – which takes eyes off the patient
- ▶ Many patients “don’t want to be a bother”
- ▶ Denial or minimization of symptoms is common
- ▶ Screening tools abound: “Right answer” vs. “True answer”

- ▶ Many times depression isn’t clearly depression

Often Depression Presents As Physical Symptoms



1999 *New England Journal of Medicine* article: 69% of diagnosed depressed patients reported unexplained physical symptoms as their chief complaint

N = 1146 Primary care patients with major depression

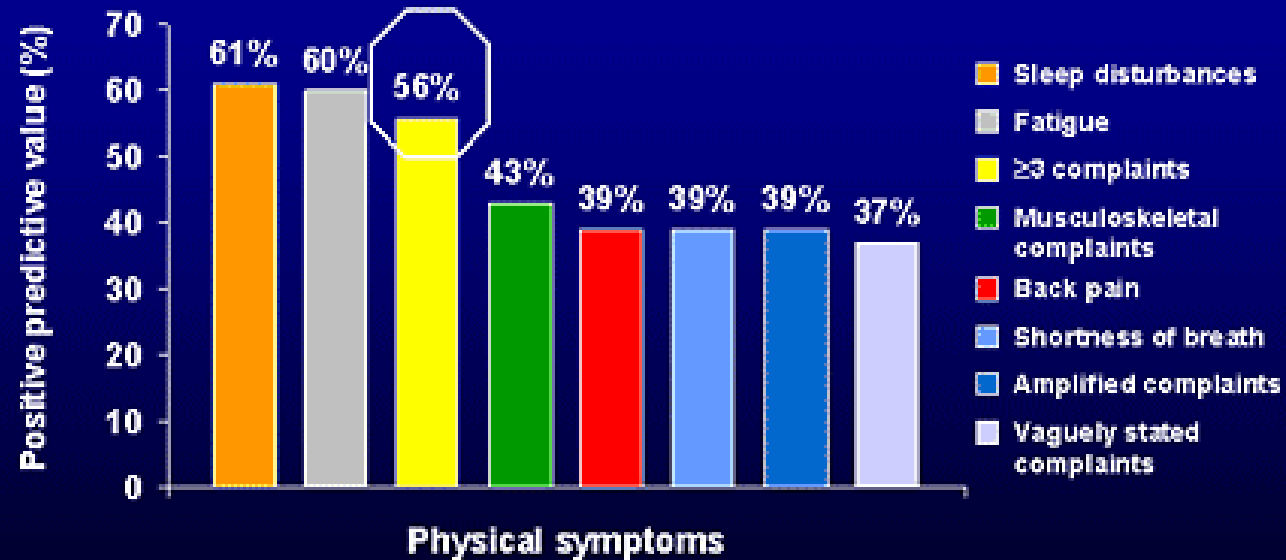
Reference:

1. Simon GE, et al. *N Engl J Med.* 1999;341(18):1329-1335.

What Do Physical Symptoms As Presentation Of Depression Look Like?

Physical Symptoms as Predictors of Depression

1,142 patients were screened for depression.

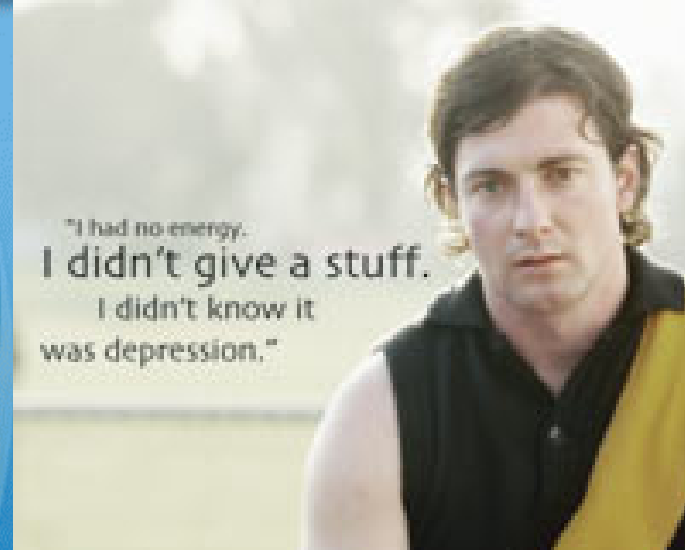


Back pain, musculoskeletal pain, and chest pain are associated with greater severity of depression.

Gerber PD, et al. *J Gen Intern Med.* 1992;7:170-173.



Depression hurts
but you don't have to.



"I had no energy.
I didn't give a stuff.
I didn't know it
was depression."

Monsters don't sleep
under your bed,
they sleep inside your
head.



Muscle Aches,
Pain, Stiffness.
Fibromyalgia?

KNOW YOUR SYMPTOMS;
IT MAY HELP YOUR DOCTOR HELP YOU



LEARN MORE

Safety Information | Prescribing Information



The Glamorous Girl-

Happy



Sad



Depressed



Suicidal


I'm
~~depressed, sad, hurt, confused,~~
~~lonely, unloved, judged,~~
~~misunderstood, insignificant,~~
~~broken, dying insi~~

Fine.



Depression – The Company It Keeps


- ▶ Depression often occurs in the setting of
 - a. Chronic illness – and from medications used to treat them (beta blockers, steroids, benzodiazepines, hormones, stimulants, PPI/H2 blockers, etc.)
 - b. Other DSM diagnoses (anxiety, bipolar disorder, etc.)
 - c. AODA
 - d. Family history
 - e. Loss (“the long goodbye” e.g., loved ones, job, mobility, independence, relevance)
 - f. Isolation
 - g. Major life events – divorce, The Great Recession, “anniversary syndrome,” 4th and 26, Brandon Bostick



Depression Looks Different At Extremes Of Ages


► **Children (5% of the pediatric population):**

- Frequent sadness, tearfulness, crying
- Decreased interest in activities; or inability to enjoy previously favorite activities
- Hopelessness
- Persistent boredom; low energy
- Social isolation, poor communication
- Low self esteem and guilt
- Extreme sensitivity to rejection or failure
- Increased irritability, anger, or hostility
- Difficulty with relationships
- Frequent complaints of physical illnesses such as headaches and stomachaches
- Frequent absences from school or poor performance in school
- Poor concentration
- A major change in eating and/or sleeping patterns
- Talk of or efforts to run away from home
- Thoughts or expressions of suicide or self destructive behavior



Depression Looks Different At Extremes Of Ages

- ▶ In older adults one may see **pseudodementia**: syndrome of cognitive impairment that mimics dementia but is actually depression
 - a. Poor attention and concentration
 - b. Symptoms resolve as the depression is treated effectively (always screen for hypothyroidism in this population, too)
 - c. If considerable cognitive impairment remains, an underlying dementia is much more likely to be present
 - d. Even “completely recovered” pseudodementia patients have substantially higher rates of dementia (20% per year of f/u – which is anywhere from 2.5 to 6 times higher than the general population risk)



Depression Looks Different At Extremes Of Ages

- ▶ Depression is NOT a normal part of aging
- ▶ Difficult to diagnose because:
 - a. Many physical illnesses can have attendant depressive symptoms (think Parkinsonism, hypothyroidism, pancreatic cancer, cognitive impairment – both Alzheimer-type and vascular type; anemia/iron deficiency)
 - b. Patients won't buy in ("What do you mean, I'm depressed? I'm fine. Say goodbye to your 5/5 rating, youngbuns!")
 - c. Low/depressed mood needn't be present but anhedonia must be
 - d. Again we may see the issue of many somatic complaints

Allow Me A Moment More On My Soapbox, If You Would



- The “suits” have created a situation where:
 - a. Doctors are becoming more reluctant to give bad or unsettling news – a direct turnaround from when I started training – in part due to fear of “traumatizing” the patient
 - b. Tying compensation to patient satisfaction scores is creating medical “short-order cooks” instead of buttressing a therapeutic alliance.
 - c. Damaging the Patient-Physician relationship short- and long term



Barriers To Depression Treatment

- ▶ Need patient buy-in (may not be seen as a priority when compared to other ongoing issues – if the patient buys in at all)
- ▶ Medications do not work instantaneously
- ▶ Medication side effects:
 - a. Polypharmacy is common, especially with increasing age, which leads to increased risk of drug-drug interactions (rule of 7's). See also Beer's List.
 - b. Absorption and metabolism of medications changes with increasing age
 - c. Drug-ETOH interactions
- ▶ Medication costs
- ▶ When to end treatment is not always clear



The Dreaded Summary Letter

Underwriters are lucky if they get three sentences. Reads just like a baseball locker room interview from the '60's-70's:

- ▶ "They are feeling real good."
 - ▶ "They are seeing me real good."
 - ▶ "Everything is going real good."
 - ▶ "They are just hoping to help the team (in this case, the therapeutic alliance)"
-
- ▶ But there are ways we can see consistency in followup, stability of treatment, etc., so all is not always lost with the summary letter.



Depression And Disability



- ▶ Untreated, depression is as costly as heart disease to the US economy, costing over \$51 billion in absenteeism from work and lost productivity and \$26 billion in direct treatment costs.
- ▶ >80% of affected people can be treated quickly and effectively.
- ▶ 2/3 of people with depression do not receive the treatment they need.
- ▶ Each year, depression affects at least 10 million people, often during their most productive years—between the ages of 25 and 44. (Say *what?!?* 25-44? Who wrote that? A Millennial?)
- ▶ Untreated clinical depression may become a chronic condition that disrupts work, family and personal life.
- ▶ Depression can impede an individual's return to work after illness or injury



Depression And Mortality

- ▶ Arnstein Mykletun, Ottar Bjerkeset, Simon Øverland, Martin Prince, Michael Dewey and Robert Stewart. Levels of anxiety and depression as predictors of mortality: the HUNT study. *The British Journal of Psychiatry*, 2009; 195 (2): 118 DOI: 10.1192/bjp.bp.108.054866
- ▶ A study by researchers at the University of Bergen, Norway, and the Institute of Psychiatry (IoP) at King's College London has found that depression is as much of a risk factor for mortality as smoking. Cause of death was not discussed in detail.
- ▶ Interestingly, depression + anxiety *decreased* mortality rates viz. depression.
- ▶ In underwriting a major concern is suicide

Suicide

- ▶ The elephant in the room. We talk about it, but we don't talk about it.
- ▶ #10 cause of death in the U.S. in 2014 – or was it?

2014 Causes Of Death And Number Of Deaths	
Cardiovascular Disease	614,348
Cancer	591,699
Chronic lower respiratory diseases	147,101
Accidents (unintentional injuries)	136,053
Stroke (cerebrovascular diseases)	133,103
Alzheimer's disease	93,541
Diabetes	76,488
Influenza and pneumonia	55,227
Nephritis, nephrotic syndrome, and nephrosis	48,146
Intentional self-harm (suicide)	42,773

- ▶ Notably absent from cause of death list: "Some Dude"

Suicide Or Accident?

→ Aubrey McClendon: Chesapeake Energy

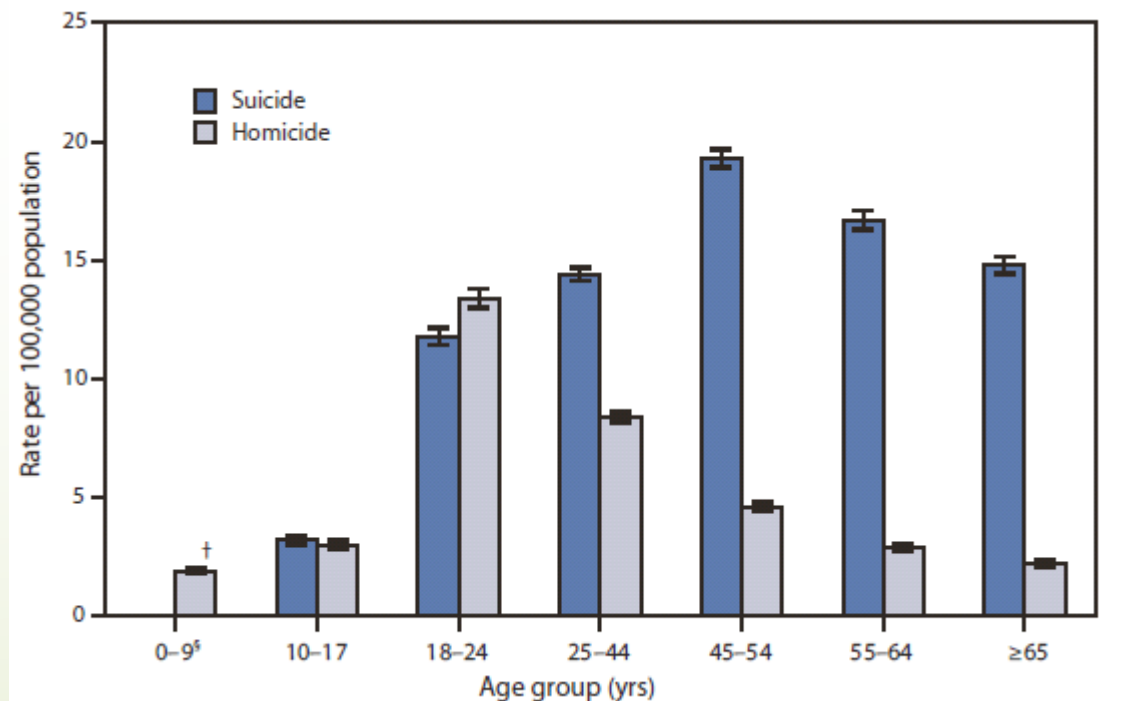


Suicide Demographics Change

- In the 1980's in the UK veterinarians had the highest rate of suicide.
- In the 21st century veterinarians don't even crack the top 10 in the UK

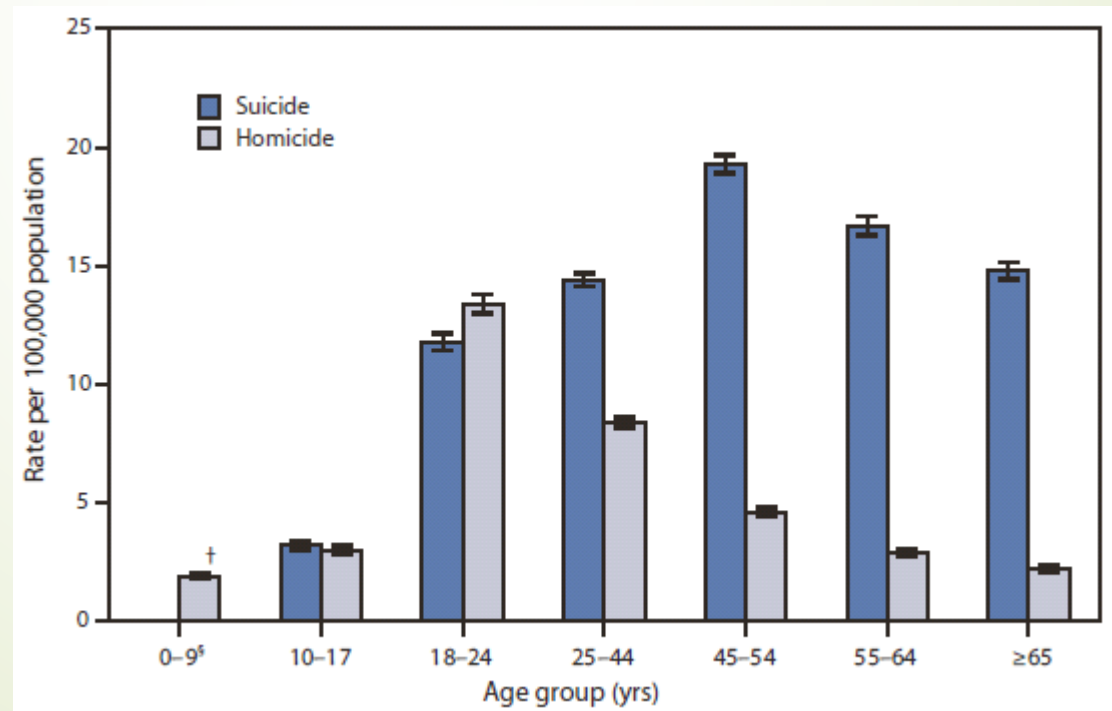
- **2009 suicide rates:**

Baby Boomer rates went up
38% between 1991 and 2009!

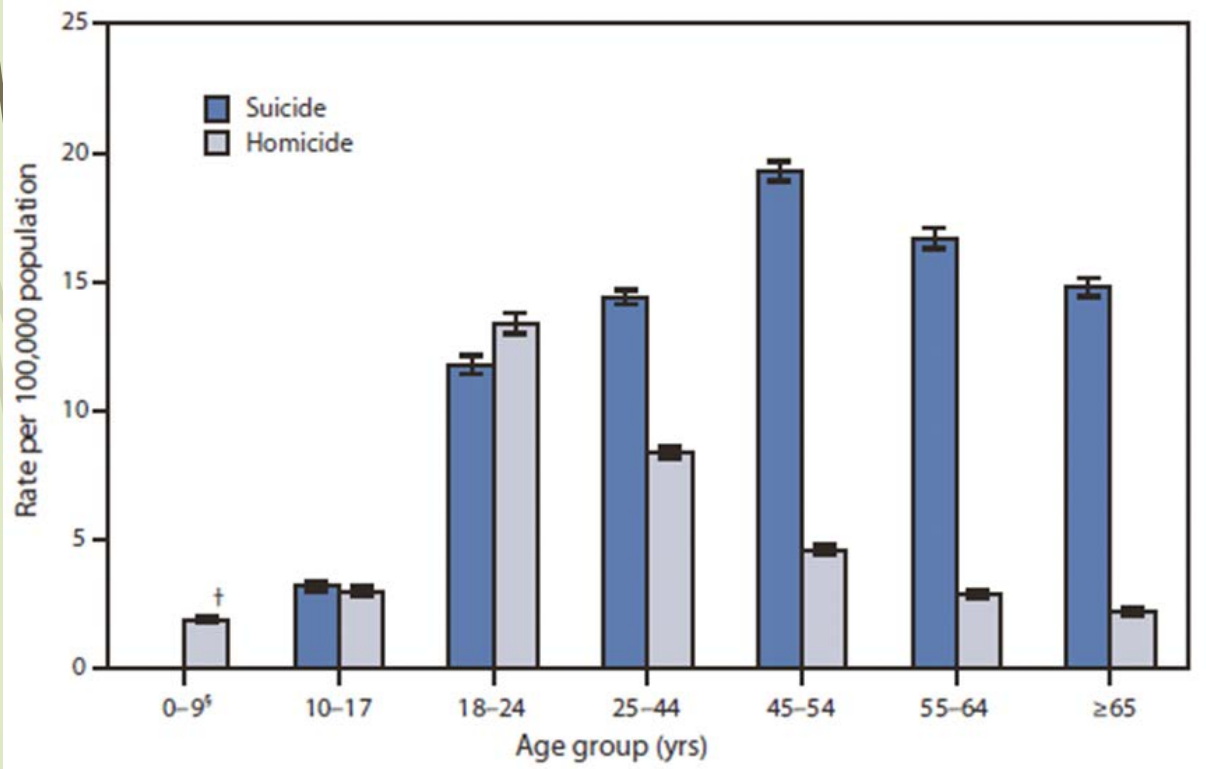


Who Is At Highest Risk For Suicide?

- Historically, older white males >70+ were #1 with a suicide rate **6x** that of the general population
- However, since the "Great Recession of 2007"



Let's Do A Deeper Dig



➤ What changed?

a. 8.8 million jobs lost

b. 27% of boomers experienced salary decreases (greater % than any other group)

c. This group had the most to lose, as they were/are approaching retirement age

i. property values

ii. household finances

iii. retirement savings



Changing Suicide Demographics

- ▶ Historically we have looked at:
 - a. Mental health – >80% who commit suicide have mental health and/or AODA problems
 - b. Loss of autonomy – impairment, infirmity
 - c. Loss of loved ones – the long goodbye
 - d. Isolation – least populated states have highest suicide rates (Wyoming, Alaska, Montana, New Mexico) and higher population density areas have lower rates (lowest in New Jersey, New York, Rhode Island and Massachusetts).
 - e. Age
 - f. Gender – women try 3x more often than men, but men succeed 4x more often than women
- ▶ Now experts are factoring in financial stressors as a risk for suicide as well




2015 Highest Risk Professions For Suicide

- Physicians 2x gen pop (women = men)
- Dentists
- Finance Workers
- Attorneys
- Police officers

- So – IMO – high achievers and people exposed to people toxicity are at greater risk




Risk Factors For Suicide

- Depression, other mental disorders, or substance abuse disorder
 - A prior suicide attempt
 - Family history of a mental disorder or substance abuse
 - Family history of suicide
 - Family violence, including physical or sexual abuse
 - Having guns or other firearms in the home
 - Incarceration
 - Being exposed to others' suicidal behavior, such as that of family members, peers, or media figures.
- 



Suicidal Behavior Is Complex

- ▶ “Wiring” differs – people who attempt suicide show differences in how they think, react to events and make decisions
 - ▶ There are differences in aspects of memory, attention, planning, and emotion
 - ▶ These differences often occur along with disorders like depression, substance use, anxiety, and psychosis
 - ▶ We continue to learn, but there is much left that we do not understand
- 



Questions?

**Dear math,
stop asking me to find your x.
He's not coming back.**

BookOfQuote[©]♥♥