# Beating the Blues

Understanding & Treating Depression
In Older Adults

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  - ► CBT depression group therapist x 15 years
  - ► ACA (Adult Children of Trauma) groups x 25 years
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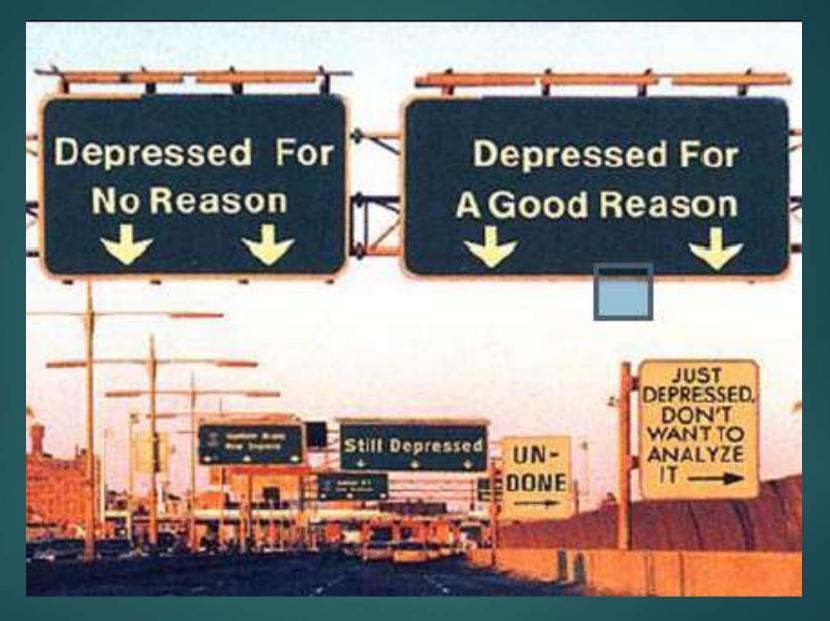


# Depression

▶ What is it?

► What causes it?

► What treatments are there?



Attitude: "Just get over it."

#### Depression: a definition

▶ Depression is a chronic, recurrent, lifelong condition

► A depressive disorder is a physiological/psychological illness that involves the body, mood, and thoughts.

▶ It affects the way you eat and sleep, the way you feel about yourself, and the way you think about things.

#### Depression

- ▶ A depressive disorder is not the same as a passing blue mood. It is not a sign of personal weakness or a condition that can be willed or wished away.
- People with a depressive illness cannot merely "pull themselves together" and get better.

▶ Without treatment, symptoms can last for weeks, months, or years.

Appropriate treatment, however, can help most people who suffer from depression.

#### Also a better depressive variant, "after" an event

► There is a relatively benign, time-limited type of depression as well, called "high functioning after depression" (HFAD)

- ► An average of 40 to 50 % of people who suffer an episode of depression don't go on to experience another
- ► HFAD represents a more psychosocial form of depression that is more likely to be precipitated by environmental adversity, such as death, a break up of a romantic relationship or a job loss
- ► These individuals report doing well at work and home and socially, and reporting "robust" wellbeing after their episode of depression

▶ Depression is **NOT**....

- Having a 'bad day',
- Having a 'bad attitude',
- 'Normal sadness'
- Part of 'normal aging'
- ▶ Grief, bereavement

# Major Depressive Disorder (MDD) Diagnosis Symptoms

- \* Depressed mood, most of day, everyday, 2 weeks
- \* Loss of interest or pleasure, most of day, everyday
  - Significant weight loss, appetite change
  - ► Insomnia or hypersomnia, daily
  - Psychomotor agitation or retardation, daily
  - ► Fatigue, daily
  - ► Feeling worthless or guilty
  - ▶ Difficulty thinking or concentrating
  - ► Recurrent thoughts of death, suicidal thoughts

#### 2 Important Questions your MD should ask you

Over the last 2 weeks, how often have you been bothered by any of the following problems:

► Feeling down, depressed or hopeless?

► Have <u>little interest or pleasure in doing things</u>?

► (Also check sleep, appetite, self esteem)

#### What is Depression?

#### Depression often IS...

- physical slowing or agitation,
- poor concentration,
- physical symptoms (aches and pains),
- thoughts of guilt,
- irritability
- ▶ and thoughts of suicide
- Often is <u>recurrent or lasting for years</u>
- Often <u>complicated by</u> chronic medical disorders, chronic pain, anxiety, cognitive impairment, grief/ bereavement

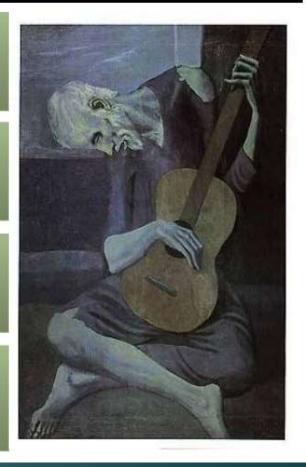
# **Depression**

Common 10% in primary care

Disabling #2 cause of disability (WHO)

Expensive 50-100% higher health care costs

Over 30,000 suicides / year



# Depression in the elderly: Major Public Health Problem

- ▶ 2 million depressed elderly
- Association with functional disability
- ► Affects course of medical illness

► 80% of people that seek treatment for depression are treated successfully.

#### Depression is common

► United States: 19 million cases per year

► Prevalence: 9 % of people in any 1 year

► Twice as many women (12%) vs. men (6%): why?

► 50% of all Psychiatry patients – leading reason for seeking psychiatric help

#### Conditions which co-occur with depression

- ► Post-traumatic stress disorder (40%)
- ▶ Cancer (25%)
- Substance abuse problems (27%)
- ► Parkinson's disease (50%)
- ► Eating disorder (50-75%)
- ► Heart attack patients (33%)

▶ Being divorced, separated, or widowed is closely linked to depression

## Depression perceived as normal part of aging

▶ 68% of adults aged 65+ know little or almost nothing about depression.

▶ Only 38% of seniors believe depression is a health problem.

▶ <u>58% believe it is normal to become depressed in old age</u>.

► Only 42% would seek help from a health professional.

#### Depression as normal 2

Less than 3% of the elderly receive treatment from a mental health professional.

► Most get MH care only from primary care physicians.

Primary care physicians accurately recognize less than 50% of patients with depression.

► As a result, the <u>majority of older adults with depression do not receive</u> any treatment for the condition.

## Marriage: good for men, not necessarily for women

Marriage seems to create a protective buffer against depression for men, but not for women.

► <u>Married women are more likely to be depressed</u> than unmarried women.

► Married men are less likely to be depressed than unmarried men.

Unhappily married women are 3 x more likely to be depressed than unhappily married men.

#### Genetics of mood disorders

- ► <u>Depression = 37% heritability</u> in twins
- ► Early-onset, severe, and recurrent major depression is the most genetic
- ▶ Bipolar disorder (depression + mania) = 65% heritability in twins (See Three Perfect Strangers documentary movie)
- ► Not a single gene

#### Depression queries on Google over 9 years

- ► <u>Highest depression month is April</u>, lowest in August.
- ▶ The date on which depression is lowest is Dec. 25; highest on Feb. 27
- ► <u>Highest</u> rate of depression is <u>North Dakota</u>; the city with the <u>lowest, San Francisco</u>.

- Increase in the unemployment rate is associated with increases in depression queries.
- Colder places have significantly higher rates of depression (40% difference)

## Depression: An Ailment of the Entire Body

- ▶ Depression:
  - Not just a 'mental illness' or 'brain disease,'
  - but it is an illness of the whole body

► <u>Produces greater risk for cardiovascular disease, diabetes and other aging-related diseases</u>.

Older people with depression show much faster age-related loss of brain volume on MRI; can be a prodrome of dementia

## Neurochemistry of Depression

Classic theory of cause of depression: low serotonin

Most anti-depressants (SSRIs - selective serotonin reuptake inhibitors): increase availability of Serotonin

Serotonin important in TX, but not in causation

#### Newer theory: Loss of new synapses and neurons

- ► What causes depression is a shortage of serotonin due to:
  - ► lack of new synapses, or nerve contacts
  - ▶ loss of neurogenesis (the generation and migration of new neurons)

SSRIs bolsters new <u>synapses and new neurons</u>, the loss of which <u>causes depression</u>.

## Neurogenesis and Depression

► Neurogenesis: 1400 new hippocampal stem cells per day

► In the hippocampus, stress and cortisol strongly inhibit adult neurogenesis.

Decreased neurogenesis has been implicated in the origin of anxiety and depression.

#### Microbiome-brain connection to Depression

- Several species of gut bacteria are missing in people with depression
- ➤ Two kinds of microbes, *Coprococcus* and *Dialister*, were missing from the microbiomes of the depressed subjects, but not from those with a high quality of life.
- ▶ Unclear whether the absence is a <u>cause or an effect of the illness</u>
- ► Coprococcus seems to have a pathway related to dopamine, a key brain signal involved in depression, although they have no evidence how this might protect against depression. The same microbe also makes an anti-inflammatory substance called butyrate, and increased inflammation is implicated in depression.
- ▶ Planning a trial of fecal transplants, which can restore or alter the gut microbiome, in depressed people.

# Life Trajectory of Depression

- Depression declines with age.
- ► Is more severe among:
  - women,
  - ethnic minorities,
  - ▶ and persons with lower education.
- Clearly often triggered by our modern social problems
- Depressive symptoms in older adulthood are linked to decreased quality of life, having more diseases, less ability to cope with illness.

#### Developmental Periods

▶ By age 30, 51% of depressed patients experience an episode of MDD.

► If you have one MDD, 53% have at least one recurrent MDD episode by age 30.

▶ Being female predicts having a MDD in all age groups

#### Depression and suicide

► At its worst, depression can be fatal, leading to suicide:

- ► 44,000 commit suicide in the U.S. each year;
- ► 1.1 million attempt suicide

#### Suicide: Method matters

- ▶ If you attempt suicide: the odds of you dying is only about
  - ▶ 5 % if you cut your wrist,
  - ► 2% if you overdose
- ► Of all those who attempt suicide with above 2 methods, <u>9% die</u>
- ▶ Of those who attempt suicide with a gun, <u>85% die</u>.
- ► CDC: more than 50% of suicide deaths involve guns.
- ► The method matters: Using a gun is usually a death sentence.

# Gun Safety

Where there are more guns, there are needless deaths, especially suicides

In America, where the chance of finding a gun in the home (the place where most suicides occur) is statistically the same as finding a carton of milk in your fridge, there's no better predictor of suicide than simply having a gun in the house.

#### Intruder Lockdown: Is this what we want for our children?



## We register almost everything important in the US:

- Cars
- Boats
- Snowmobiles
- Scouters
- Dogs
- Drones
- Marriage
- Hunting, Fishing
- Certain Cold Medications

## **But not Guns**

#### America's favorite gun: Not AR-15s



▶ Pistols -- semi-automatic handguns with magazines that slide into their grips -- are the most manufactured category of American firearm.

#### Gun deaths in USA

▶ 93 gun deaths per day and 200 nonfatal gun injuries per day;

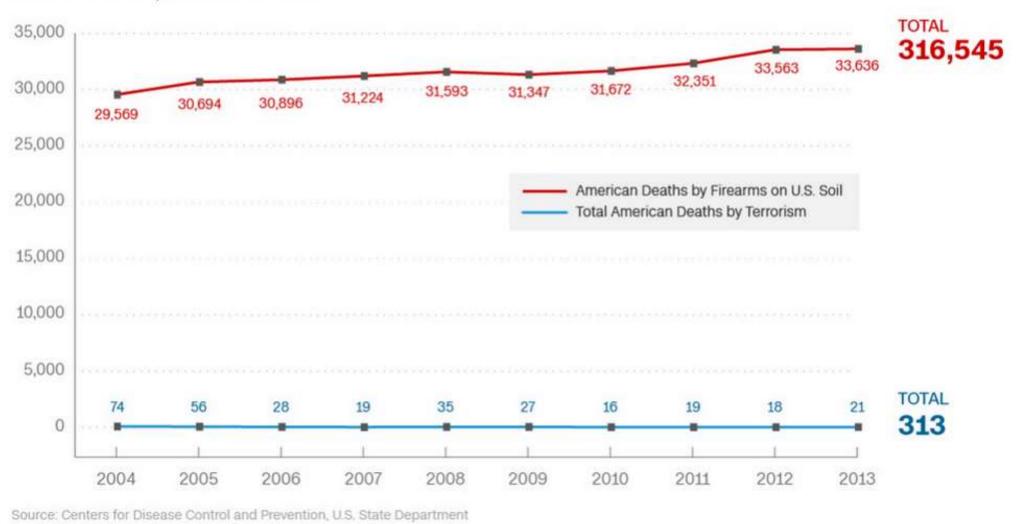
- ▶ 33,880 gun deaths per year in the US
  - ▶ 12,000 gun homicides a year in the U.S.
  - ▶21,036 gun deaths are suicides (62 % of all gun deaths)

- ► Majority of successful suicides are men (85%), and most of them use a gun.
- ► America's gun homicide rate is more than 25 times the average of other developed countries.

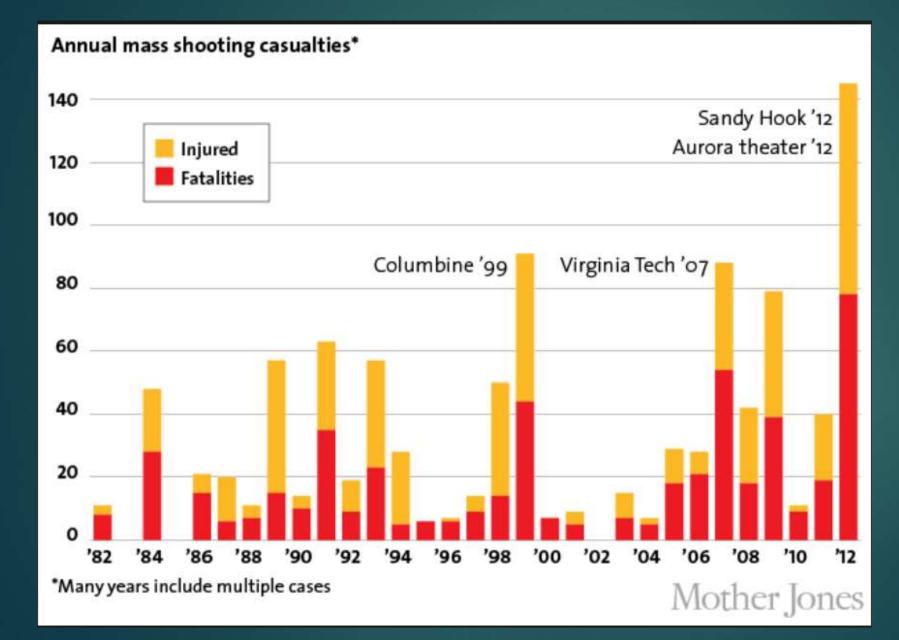
#### 2004-2013: 1000 gun deaths per 1 terrorism death in US

#### NUMBER OF AMERICANS DEATHS CAUSED BY TERRORISM VS. GUN VIOLENCE

For every American killed by terrorism in the U.S. and around the world, more than 1,000 were killed by firearms inside the U.S. during the most recent decade for which comparative data is available.



#### What TV and public Focus on: Mass Shootings



(FBI: Mass killings Since 2006: 200)

Mass <u>shootings</u> (4 or more people are shot)

2018: 340

2017: 346

2015: 300

2014: 283

2013: 363

Only 2% of overall gundeaths in America

Shootingtracker.com

#### Real mass shootings – unlike what you see on TV

- ▶ The majority (57%) of mass shootings in the U.S. take place in private.

- ► The <u>untold story of mass shootings in America is one of domestic violence.</u>
  - ▶ one of men killing their wives or ex-girlfriends or families.
  - ► The <u>victims are intimately familiar to the shooters, not random strangers.</u>
  - ► Every month, 50 women are shot to death by intimate partners in the U.S.

#### Gun Violence is a public health issue

► More guns, more firearm violence: Increases in firearm ownership and use are associated with increases in firearm violence.

Most gun violence is not mass shootings.

▶ It is individual shootings by angry people (not mentally ill)

► The problem is not assault rifles, but handguns.

#### Not assault rifles, but hand guns

▶ Banning assault rifles is not the solution; AR-15s are not the problem

- ▶ 98% of the time, when Americans shoot one another,
  - ▶ it is impulsive,
  - ▶ up close with a handgun,
  - ► done by a male vs a woman or child,
  - ► caused by anger
  - ▶ and is not for political reason

## Black lives matter: biggest gun victims — black people

Black people are more likely than any other ethnicity in the United States to be killed by a gun.

► African Americans suffer 57% of all firearm homicides

- ▶ In 2012,
  - ▶ 90 people were killed in mass shootings like the ones in Newtown and Aurora, CO.
  - ► That same year, nearly 6,000 black men were murdered with guns.

#### Guns = Most Lethal Suicide Method

► In the United States, <u>firearms are the most common method of suicide</u> (50%)

Firearms are used in only 5 percent of suicide attempts

▶ But they cause 60% of deaths given a 85 percent fatality rate

#### Guess how many:

- ► How many MacDonald's Restaurants in US?
  - **▶**14, 098
- ► How many federally licensed firearms dealers?
  - **▶**58,344

There are more gun dealers (1782) in California than post offices

#### Death due to a gun in the home

► The Gun Self-Defense Self-Delusion: NRA claims "guns make people safer".

- ► For each time a gun in the home is used in a self-defense or legally justifiable shooting, there are:
- ▶ 4 unintentional shootings,
- ▶ 7 criminal assaults or homicides (usually vs family or wife)
- ▶ 11 attempted or completed suicides.

► Having a gun in the home is a risk factor for completed suicide.

#### Pediatricians: No guns in the home

- ▶ 1 child dies every other day in gun accidents in homes in US;
- Every week 1 toddler shoots a gun

Scientific studies suggest that the <u>health risk of a gun in the home</u> is greater than the benefit

American Academy of Pediatrics's policy statement is that <u>pediatricians</u> urge parents to remove all guns from their homes.

#### Gun Sense

- Gun safety laws are a public safety issue, like traffic control; There are more suicides than traffic accident deaths
- ► In traffic control, we have speed limits, driver licensing, insurance; all gun owners need licensing and liability insurance coverage
- ► Gun registration does not infringe on 2<sup>nd</sup> Amendment
- Constitutional rights can be restricted:
  - ► Free speech: can't yell fire in theater
  - ► Freedom of religion: can't sacrifice animals
  - ▶ Right to vote: you must register

#### Solutions

- Support gun safety legislation
  - universal background checks
  - ► register all guns
  - restore assault weapons bans
  - ▶ no large ammunition magazines

► Need gun buy-back programs

**Fewer Guns = Fewer Gun Deaths** 

#### Most Suicidal = White Older Males

- ► Male elderly are 4x more lethal in suicide attempts; use guns (70%)
- ► White men age 85+ have a suicide rate 6x higher rate
- Availability of guns & male preference for use of guns in suicide

## Suicide in elderly men

Presence of a health problem at the time of death was one of the best predictors of suicide with a firearm.

▶ Older men have <u>weaker social bonds and remain more emotionally</u> <u>detached</u>, resulting in an <u>inability to cope with physical decline</u>

#### Prevalence of Depression in the older person

While prevalence of depression declines with age, it is the most common emotional problem in older adults

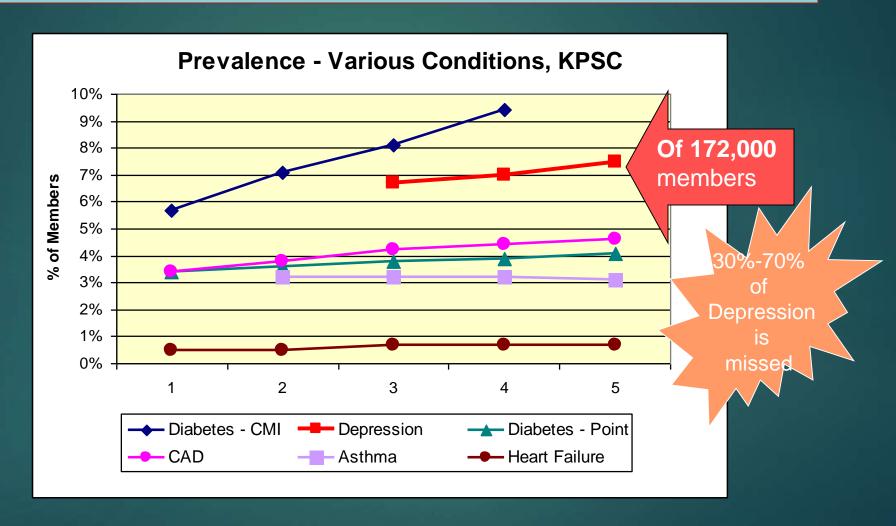
2% can be diagnosed with Major Depressive Disorder

► 13-27% have depressive symptoms

#### There are Problems

- Older adults are reluctant to talk about their depression:
  - to tell their MDs that they are depressed
  - to seek psychiatric help
  - are noncompliant with medications
- Primary Care MDs in US are part of problem:
  - ▶ Provide 50% of all outpatient MH care
  - Reluctant to ask pt about depression
  - ► Under treat depression
  - ► Fail to prescribe adequate antidepressants
  - ► Fail to refer to Psychiatry

#### Depression is more prevalent than Coronary Artery Disease, Asthma and Heart Failure

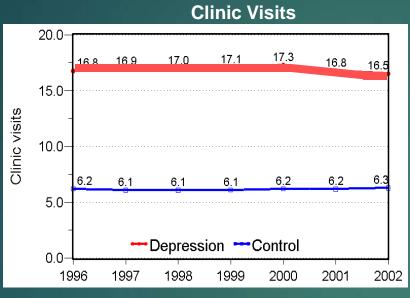


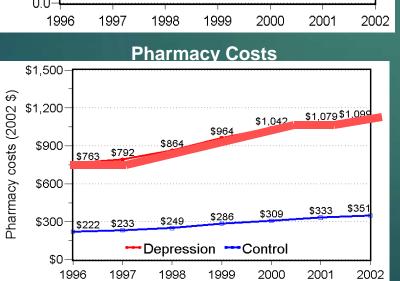
#### Sources:

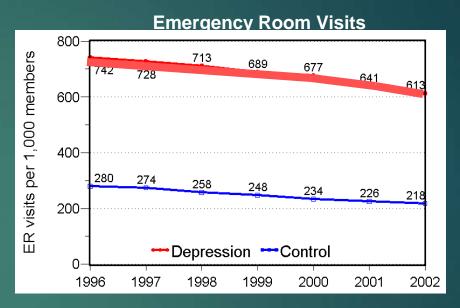
- $\bullet \ \ CMI \ website, \\ \underline{http://cl.kp.org/portal/site/national/index} \ for \ Depression \ and \ Diabetes, \\ 2002 \ and \ 2003 \ reports$
- PCM Point data for Aged 65+, Asthma, CAD, Heart Failure and Diabetes, 2004, PCM Department

#### **Depression = Higher Medical Utilization**

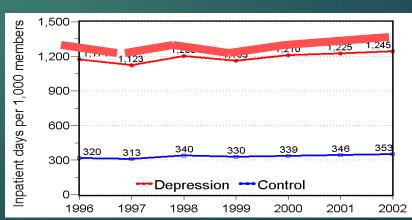
#### **Utilization Comparisons - Depressed and Non-Depressed Members**











Source: Ncal Analysis, Dr. Taylor, CMI data for Northern California members

#### **Depression Myths**

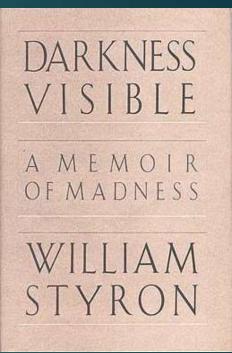
#### Myths about Depression:

- ▶ Character Flaw
- ► Lack of Will Power
- ▶ Permanent
- Weakness
- ▶ Shameful
- ▶ Rare

► All untrue

#### William Styron's Darkness Visible

"In depression this faith in deliverance, in ultimate restoration, is absent. The pain is unrelenting, and what makes the condition intolerable is the foreknowledge that no remedy will come... If there is mild relief, one knows that it is only temporary; more pain will follow. It is hopelessness even more than pain that crushes the soul...Mysteriously and in ways that are totally remote from natural experience, the gray drizzle of horror induced by depression takes on the quality of physical pain."



## Major Depression is Recurrent

#### Course:

►One episode – 50% chance of reoccurence

► Two episodes – 70% chance of reoccurence

► Three or more episodes - >90% chance of reoccurence

#### Natural Course of Depression

Symptoms develop over days to weeks

• If untreated: lasts six months or longer

Symptoms remit in the majority

## Natural Course of Depression 2

- Suicide: 15% in severe cases
- 10% of 65+ adults in medical settings have significant clinical depression.
- Only 22% seek help (but 78% who do, improve)

Recovery from Depression is the rule, if you seek TX

## Pattern of Depression

Feelings:

Feel Depressed

Anhedonia: No fun

Increased Anger

Guilt

**Body** 

Sleep disorder

Weight changes

Energy decreases

Aches and pains

**Thinking:** 

Can't Concentrate

Attention\Memory problems

Hopeless/Worthless

Can't Read

Suicidal

**Behavior (Paradoxical):** 

Activity decreases

Loss of interest

Interpersonal Interactions stop

Crying

Ethnic Differences: "Nerves" and headaches in Latino/Mediterranean; weakness, tiredness in Asian cultures

## Types of Depression

- ► Major Depressive Disorder (MDD)
- Bipolar I & II (Manic Depression): significant ups
- Persistent Depressive Disorder (Dysthymia)
- ► All above can have Seasonal variant?
- ▶ Post birth MDD 10-15% of women post childbirth
  - Women wo kill their young children = psychotic version

#### DSM Diagnosis of Major Depressive Disorder

5 or more of these sxs; Must have at least 1 of the following during a 2 week period; sxs cause distress & impaired functioning

- 1. Depressed Mood
- 2. Markedly diminished interest or pleasure in almost all activities (anhedonia)

Must have at least 4\* of the following during a 2 week period

- 3. Significant weight loss/gain
- 4. Insomnia/hypersomnia
- 5. Psychomotor agitation/retardation
- 6. Fatigue or loss of energy
- 7. Feeling of worthlessness or excessive or inappropriate guilt
- 8. Impaired thinking, concentration or indecisiveness
- 9. Recurrent thoughts of death or suicide (suicidal ideation)

Mild, Moderate, Severe; with/without psychosis

## Persistent Depressive Disorder (Dysthymia): Glass half empty

- ▶ Dysthymia has a more chronic symptom component
- Chronically depressed mood for two years
- ► More of "how they are", personality style.
- ▶ Poor or overeating, insomnia/hypersomnia, low energy, low self esteem, poor concentration, hopelessness
- ► NOT characterized by a Major Depressive episode(s)

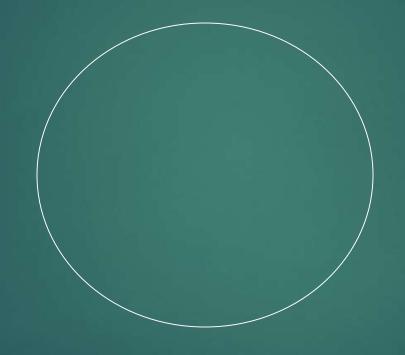


#### Cycle of Depression

A Trigger, then:

Negative Thoughts ↑

Mood ↓



Behavior:

**Isolation**<sup>↑</sup>

**Activity** ↓

Physical symptoms (Sleep \, Fatigue \, Weight \,\)

#### Depressed Parents

Having a <u>depressed</u> <u>mother</u> puts you <u>at higher risk for lifetime major depression</u>.

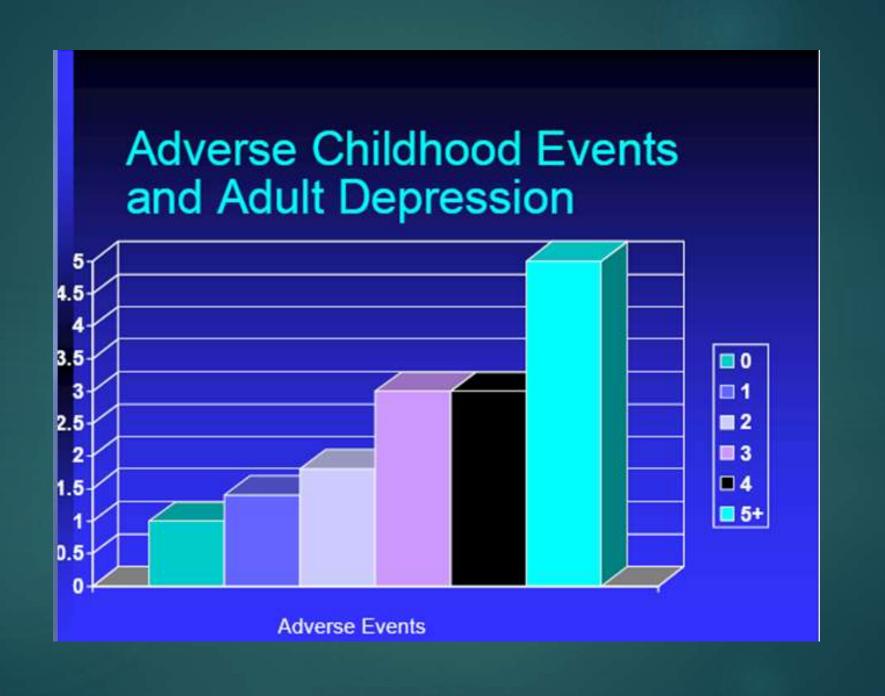
- Parental depression determines <u>high-risk for offspring</u>.
- Low education in mother is a risk factor for depression in children.

## Social Media use increases depression and loneliness

- In the first experimental study of Facebook, Snapchat, and Instagram use:
   causal link between time spent on the internet and decreased well-being
- Social media use (more than 1 hour/day) increases depression and loneliness
- Using less social media than you normally would leads to significant decreases in both depression and loneliness. These effects are particularly pronounced for folks who were more depressed when they came into the study
- Reducing your use of social media actually makes you feel less lonely

#### ACES: Adverse Childhood Experiences

- 1 Recurrent physical abuse
- 2 Recurrent emotional abuse
- 3 Contact sexual abuse
- 4 An alcohol and/or drug abuser in the household
- 5 An incarcerated household member
- 6 Someone who is chronically depressed, mentally ill, institutionalized, or suicidal
- 7 Mother is treated violently
- 8 One or no parents
- 9 Emotional or physical neglect



#### Childhood abuse & Depression

Meta-analysis of 23,000 pts:

• Those with maltreatment as children are twice as likely to develop depressive episodes.

# Depression. It's not only a state of mind.

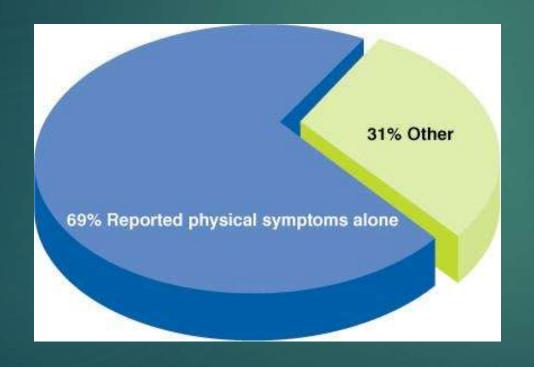
#### The symptoms of depression

Emotional Symptoms Include:
Sadness
Loss of interest or pleasure
Overwhelmed
Anxiety
Diminished ability to think or concentrate, indecisiveness
Excessive or inappropriate guilt

Physical Symptoms Include:
Vague aches and pains
Headache
Sleep disturbances
Fatigue
Back pain
Significant change in appetite resulting in weight loss or gain

#### Depression: physical presentation

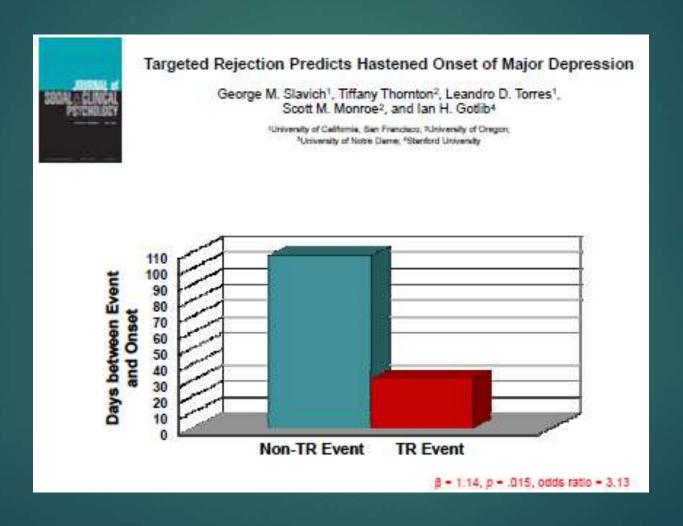
In primary care, <u>physical symptoms are often</u> the chief complaint in depressed patients



69% of diagnosed depressed patients report unexplained physical symptoms as their primary compliant

N = 1146 Primary care patients with major depression

## Being Socially Rejected is a major trigger for Major Depression



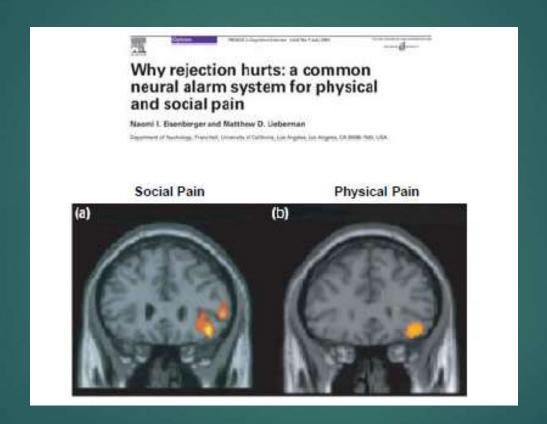
Faster onset of depression after rejection event

#### **Social Loss**

► The <u>death of a loved one, divorce and abrupt unemployment—can trigger individual episodes of depression, especially the very first incidence</u>.

▶ <u>Deliberate rejection of one person by another</u>—is a particularly powerful catalyst of depression.

# Rejection Hurts: Social rejection causes physical pain



2,000 milligrams daily of acetaminophen for three weeks

#### Stress and Sensitization

- Amount of stress needed to trigger a depressive episode decreases with each depressive episode.
- Individuals became more sensitized to stress over time
- Stress:
  - Impairs neurogenesis in the hippocampus.
  - Creates more epigenetic markers for depression

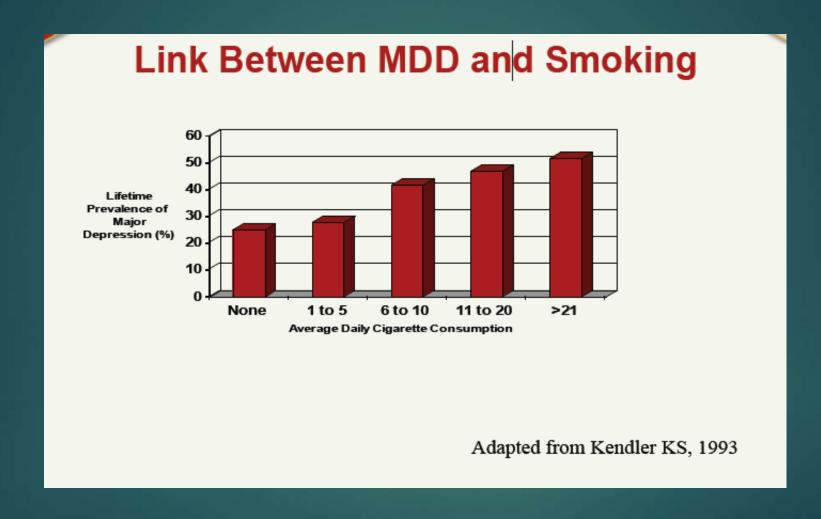
# Social Group Connection is an antidepressant

Participate in social groups!

► The more someone identifies with a group, the less severe his or her depression symptoms are.

► Thus, <u>a sense of connection to a group</u>, rather than just contact with individuals, is what protects mental health.

#### As Depression increases so does Smoking



Smoking is a lethal behavior: 400 K deaths per year

# Triggers for Depression

 Adverse Life Events: multiple losses (job, marriage, social status, sex, abilities, health, dreams, bereavement)

- Loneliness and isolation Living alone; a dwindling social circle due to deaths or relocation; decreased mobility due to illness or loss of driving privileges.
- Reduced sense of purpose due to retirement or physical limitations on activities.
- <u>Health problems</u> Illness and disability; chronic or severe pain; cognitive decline; damage to body image due to surgery/disease.

#### Triggers for Depression

<u>Medications</u> – Many prescription medications can trigger or exacerbate depression: anticholinergics, statins, benzos, steroids, anticancer drugs, alcohol, polypharmacy, etc.

**Fears** – Fear of death or dying; anxiety over financial problems or health issues.

Ongoing bereavement - The death of friends, family members, and pets; the loss of a spouse or partner.

# Apathy vs. Depression

Apathy is different than depression:

Apathy = A disorder of loss of motivation, loss of direction

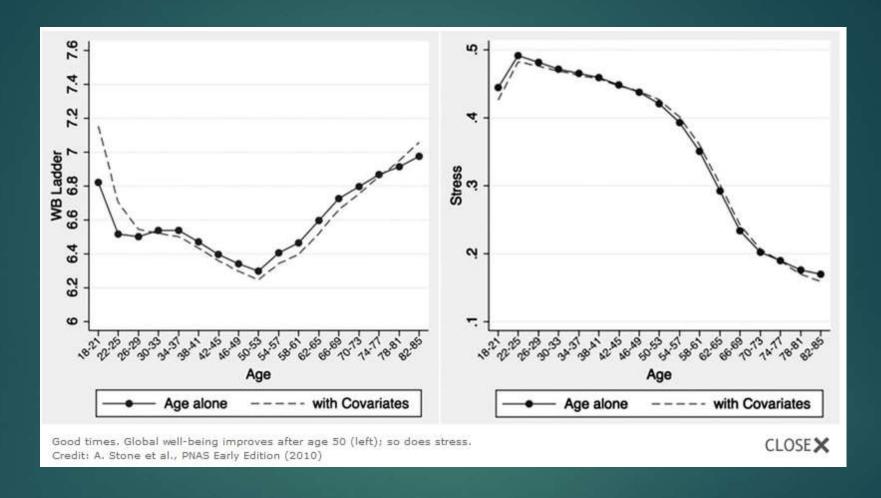
<u>Depression</u> = emotional suffering, self criticalness

Apathy more common in Alzheimer's, Parkinson's, FTD

# Ethnicity

- ► Ethnic minorities are at greater risk for depression, in part due to:
  - socioeconomic disadvantages,
  - lower educational attainment
  - greater likelihood of medical problems
  - discrimination and chronic stress related to it

#### Aging: Not all bad news



Sense of well being increases

Stress and Anger decreases

#### Risk Factors for Depression

- Female Gender
- Lack of Social Support
- Recent Bereavement
- Personal or family history of depression
- Personal or family history of suicide attempts
- Major medical illness
- Domestic abuse
- Minor depression and dysthymic disorder

## **Alcohol and Depression**

- 2 Negative consequences of Alcohol:
- 1 It is a Neurochemical Depressant
- 2 It produces Frontal Lobe Disinhibition (no behavioral brakes)

50% of completed suicides are done under the influence of alcohol

## Suicidal Thoughts & Medication

- Suicidal thinking is common
- ► Initial antidepressant medication and suicidal ideation:
  - research indicates 3 in every 100 pts. in 1<sup>st</sup> thirty days of antidepressant medication in children and adolescents
  - ▶ 5 in every 1000 adults

## Suicidal Thinking: common in depressed individuals

- ▶ In 2014:
  - ► 49% of suicidal individuals did not receive any mental health services in the past year,
  - ▶ 12% were adults with a substance use disorder

- ▶ 30% of depressed individuals report serious thoughts of suicide,
  - ▶ 10% have made suicide plans

# Suicide attempts are usually unsuccessful

► In young people (aged 15 - 24), the odds are between 100 and 200 to 1 against success in a suicide attempt.

► The elderly are a lot more successful at 4:1.

Women: 3x more unsuccessful attempts than a man, yet attempt suicide 3x more often than men

► Ratio of failure to success = 41 to 1.

▶ 70% of people that try to kill themselves are not that intent on succeeding

## 2019 Study: Suicidal thoughts not a reliable warning of suicide

- ► The majority of people who die by suicide deny having suicidal thoughts when asked by doctors in the weeks and months leading up to their death
- The research questions a widely held belief that suicide can be accurately predicted by psychiatrists and clinicians by assessing a patient's risk, especially in the short-term.
- ▶ Review of 70 major studies of suicidal thoughts: 1.7% of people with suicidal ideas died by suicide. About 60% of people who died by suicide had denied having suicidal thoughts when asked by a psychiatrist or GP.
- ▶ 80% of patients who were not undergoing psychiatric treatment and who died of suicide reported not to have suicidal thoughts when asked by a GP.
- clinicians should not be persuaded into false confidence generated by a lack of ideation. Some people will try to hide their suicidal feelings from their doctor, either out of shame or because they don't want to be stopped. We also know that suicidal feelings can fluctuate rapidly, and people may suicide very impulsively after only a short period of suicidal thoughts
- Family: it is not your fault if you did not know someone was suicidal.

#### Suicide Risk in the Elderly

► Elderly are 13% of population, but 16% of suicides

▶ 75% of successful elderly suicides saw MD in last month

>80% of elderly who attempt or complete suicides are depressed; they need treatment

#### Suicide Risk Factors

- ▶ Male
- ► > 60 years
- Widowed or Divorced
- White or Native American
- ► Living alone (social isolation)
- Unemployed (financial difficulties)
- Recent adverse life events
- ► Chronic Illness

#### Depression Risk Factors in Older Adults

- Retirement
- Home relocation
- Diminishing financial base
- Loss of friends
- Bereavement
- Chronic medical illness
- Major Neurocognitive Disorder/Dementia

#### Presentation of Elderly Depressed

- Denial of depression is common
- Common expressions:
  - "Life is not worth living."
  - "Why am I still here."
  - ► Health concerns
- ► <u>Irritability</u>: the <u>most frequent symptom in elderly</u>
- Irritability, social withdrawal and somatic complaints often more important than depressed mood in diagnosis of depression

## Presentation of Elderly Depressed

- Somatic complaints often dominate
  - fatigue
  - sleep disturbance
  - vague symptoms
  - bowel dysfunction
  - pain: headache, backache, abdominal pain
  - palpitations, dizziness
- Anxiety is a common symptom
  - nervousness/irritability
- Anniversaries
  - death dates, holidays

#### Grief is normal

Grief is a natural and healthy response to bereavement and other major losses.

- Grief has focus in the lost one;
- Depression is often about self criticism
- Depression: persistent depressed mood and inability to anticipate happiness or pleasure
- Grief: predominant affect is feelings of emptiness & loss

#### Bereavement: Medical crisis period

More heart attacks: 21-fold elevated risk of nonfatal MI within 24 hours of the death of a significant person

► 41% increase in mortality in the first 6 months after the death of a spouse.

► <u>Depression following bereavement is common, but responds to Tx</u>

#### Men and Grief

► Women express feelings.

► Men often not comfortable with talking about their feelings, and they prefer to do things as a way to cope.

▶ Don't ask 'How do you feel?' Rather, ask, 'What did you do?'

► Recommend support group.

## High Prevalence of Depression in the Medically III



- High prevalence
- Under recognized
- Under diagnosed
- Under treated

#### Depression and Heart Disease

- ► There is a dose response relationship between depressive symptoms and the risk of developing heart failure: more depression, more heart failure.
- Being depressed is most significant predictor of death in 1<sup>st</sup> 6 months after heart attack: needs to be treated

► Moderate to severe depression increases the risk of heart failure by 40%

▶ 21% of heart patients have a documented Depression Diagnosis

#### Importance of Treating Depression Associated with Medical Illness

- Depression has an <u>adverse effect on survival</u> in <u>medically ill patients</u>
- Can <u>amplify somatic symptoms</u> and <u>prolong hospitalization</u>
- May decrease patients' motivation to care for their illness
- Poorer medical prognosis

## Depression and Sleep

▶ 75% of depressed have poor sleep quality

Insomnia increases risk of depression twofold.

Less sleep reduces beta amyloid removal in the brain.

#### **CBT** for Insomnia

- ► Teaches people to establish:
  - a regular wake-up time and stick to it;
  - get out of bed during waking periods;
  - avoid eating, reading, watching TV or other activities in bed
  - ▶ and eliminate daytime napping.

Bed for only sleeping and sex

▶ 60 percent of patients who received seven sessions of the talk therapy and an antidepressant fully recovered from their depression



Depression, Spirituality, & Purpose

People who have a meaning or purpose in their life are 70 percent less likely to have a depression than those who had low levels of existential well-being.

#### The Usual Care of Late-Life Depressions Not Effective

- Depressed are rarely treated effectively by physicians
  - Older men, African Americans and Latinos have particularly low rates of depression treatment
- Depressed are rarely treated by mental health professionals
  - ► Fewer than 10 % of depressed older adults go to Psychiatry
  - Only about 50% of depressed older adults follow through with referrals to mental health care
- Antidepressant treatment often not effective
  - ► Early dropout
  - staying on ineffective meds too long

#### **Treatment Barriers**

- Depression as a part of medical illness or 'normal aging'
- Stigma
- ► Lack of time and competing priorities
- ► Lack of money
- Lack of integration between primary care and mental health care
- ► Limited insurance coverage for mental health care

## Spotting depression in older individuals

- Weight loss
- ▶ Poor sleep
- Psychomotor slowness
- Fatigue
- Thoughts of worthlessness
- Impaired concentration
- Often misattributed to changes of aging which leads to the under diagnosis and treatment

#### Women Who Think Too Much: Depression in Women

► Women are twice as likely to experience depression as men

► Women are more prone to ruminate than men; when bad things happen, women brood

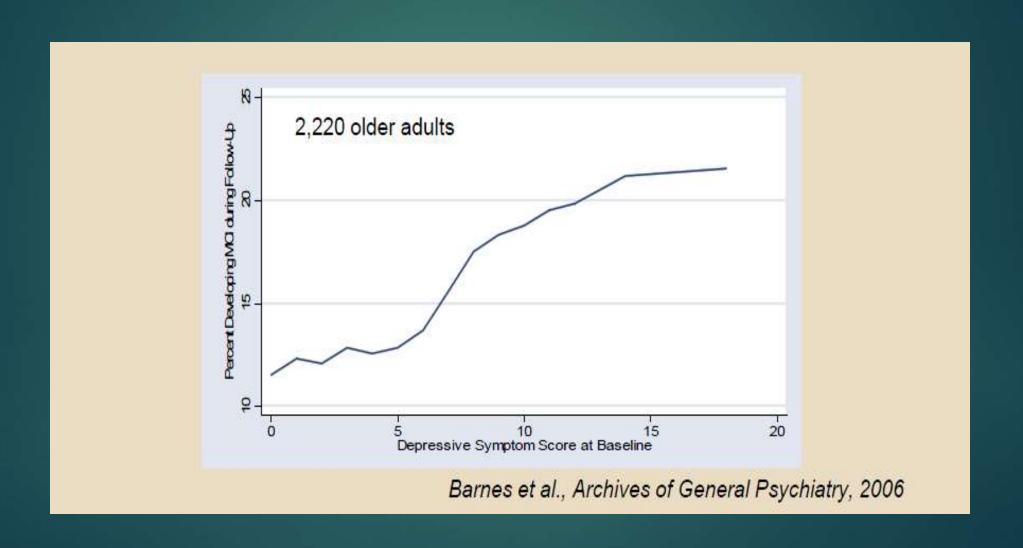
Rumination increases inflammatory C-reactive protein

#### Men and Depression

- Men are:
  - ▶ less likely to admit depression,
  - more untreated depression
  - less willing to acknowledge sadness, thoughts of guilt & worthlessness

Men are significantly more likely to report symptoms of anger attacks/aggression, irritability, substance abuse, and risk-taking behaviors over symptoms such as withdrawal from friends, sleep problems

#### Risk of cognitive decline increases with depressive symptoms



#### Depression and Cognition

- Cognitive impairment in MDD is a key determinant of individual functional outcomes:
- How well a depressed person functions in real world is due to cognitive ability not depressed mood

- Increasing severity of depression:
  - ▶ processing speed and executive skills ↓
  - cognitive deficits in attention, learning abilities, long-term memory, autobiographical memory have also been demonstrated.

#### Depression and Cognitive Disorders

- Cognitive Impairment (MMSE<24) increases with Age:</p>
  - 15% age 65-74; 25% age 75-84; 45% in 85+

Chronic <u>Depression increases stress related cortisol levels</u>; <u>high</u>
 <u>cortisol levels</u> <u>reduce hippocampal volume, decrease neurogenesis</u>

20-40% of Alzheimer's exhibit "depressive" sxs: part of prodrome, apathy, or consequence of vascular condition

# Coffee ↑↑ and Depression ↓↓

▶ Dose relationship: more the coffee, less the depression

Less suicidality as coffee consumption increases

➤ 3 cups/day in tea consumption associated with a decrease in the risk of depression of 37%

#### Late Life Depression

- Depression with 1st onset at or after age 60
- Presence of HTN, TIA, vascular surgery, CVAs
- <u>Late life onset of depression is associated with an increased risk for vascular NCD/dementia and Alzheimer's disease</u>

•

• The more Executive Dysfunction, poorer response to meds (or poorer med compliance)

#### Depression & NCD/dementia

Ongoing Major Depression is a <u>risk factor for dementia/major NCD</u>

▶ Depression <u>turns off neurogenesis</u>

Anti-depression TX\_(either medication or Cognitive Behavioral Therapy or ECT) turns on neurogenesis and reduces risk of NCD/dementia in cognitively normal

▶ Use of <u>Aricept</u> (for MCI or dementia) temporarily <u>improves cognition</u>, but <u>increases recurrence of depression</u> in cognitively impaired

# Antidepressants: Increase Hippocampal Volume



# Anti-depressants reduce Beta Amyloid

▶ Beta amyloid is protein that likely causes Alzheimer's disease

► If <u>antidepressant in the last five years</u>, half the Beta Amyloid load in their brains

► The longer the antidepressant dose, the less BA plaque.

#### Depression increases medical risk factors

Individuals with depression are at increased risk for:

Stroke

Diabetes

► Alzheimer's

▶ Suicide

# Mediterranean Diet reduces depression

► <u>Higher adherence to a Mediterranean diet was associated with a 30% reduced risk for depression</u>

▶ Diets higher in plant foods, such as vegetables, fruits, legumes and whole grains, and lean proteins, including fish, olive oil are associated with a reduced risk for depression

#### **Untreated Depression**

Increases death rate from all other medical conditions

▶ Often fatal: Leading cause of suicide

► <u>Depression is principal risk factor for suicide</u>

# How Depression is Treated

- Unorthodox Methods
- Self Care
- Medications
- Patient Education
- Cognitive Behavioral Therapy
- Relapse Prevention

#### **Unorthodox Methods**

► Alcohol: negative

► Touching: positive

▶ Pets: positive

#### Treatment of Depression

- Antidepressants
- Psychotherapy
- ▶ Physical exercise
- ECT (best for psychotic depression)
- ▶ Newer Txs: Vagal Nerve Stimulation, DBS, TMS
- Avoid anticholinergics

# Treatment of Depression

- Pharmacological Medications
  - ► Anti-depressants (SSRIs, SNRIs)
    - ▶ No drug is better than any other drug; need to find right one
    - ►50% improve at 6-8 week
    - ► Too low dose or too short time are reasons for non-response
  - Augmentation
    - >+ Stimulants
    - + Mood stabilizers (Lithium)

#### Antidepressant Medications

Antidepressant Side-effects

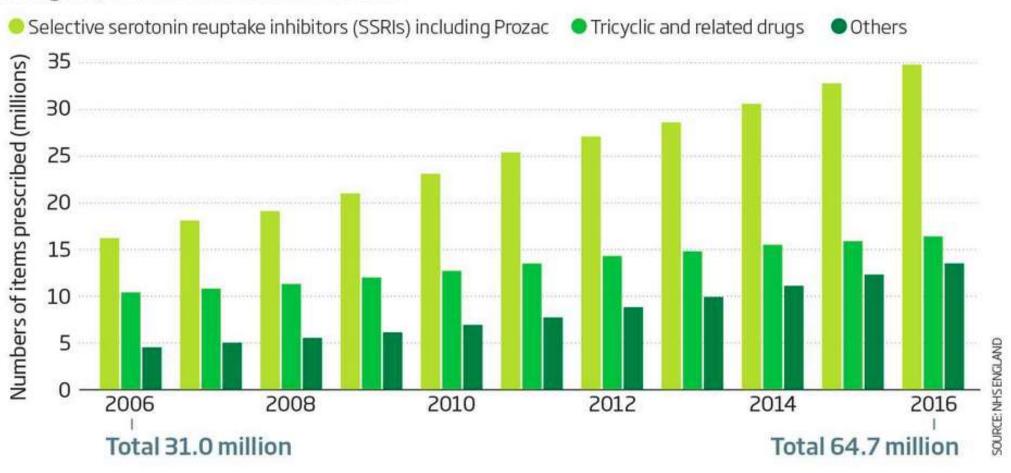
- TCAs Elavil Dry Mouth, Constipation
- SSRIs Prozac Headaches, Nausea, Sexual
- ► SNRIs Effexor
- ► Slow start: therapeutic blood level 4-8 weeks for effect
- Persistence: Don't stop if you improve

#### Treatment-resistant depression in older people

- ► About 30% of people with depression:
  - do not respond to antidepressants at the recommended dosage
  - ► have treatment-resistant depression

#### On the up

The advent of drugs such as Prozac has seen antidepressant use rise rapidly in many countries. In England, their use has doubled in a decade



# STAR\*D Study

- ► STAR\*D study:
  - ▶ 37% respond to 1<sup>st</sup> drug
  - ▶19% to 2<sup>nd</sup> drug;
  - ▶total of 67% effectiveness rate
  - At 1 year, most need 2<sup>nd</sup> drug
  - ► Half of those who recovered relapsed within a year

► No placebos used; CBT not paid for

# Important behaviors to cure depression: try first

- ► Get physical. Anything that gets you moving is going to help with depression
- Be social. Frequent in-person social contact with friends and family was better than just emails or telephone calls.
- Schedule activities. Scheduling positive activities can help with depression.
- Steer clear of supplements, esp. St. John's wort (dangerous interactions)

#### Listening to Prozac but Hearing Placebo.

- ▶ I. Kirsch + 2 other studies: antidepressant meta-analyses:
  - drugs alleviated depression no better than the placebo
  - ▶ both <u>anti-depressants & placebos were both 82% effective</u>
  - ► the worse side effects a patient experiences, the more effective the drug; 80% guess right about being on real drug, and have stronger placebo effect
  - ► lion's share of the drugs' effect comes from the fact that patients expect to be helped by them
  - ► Not placebo only in patients with very severe symptoms
- Power of Placebos: holy trinity of "belief, expectation, and hope"

# Some symptoms remain

- ► There can be <u>residual symptoms of medication Tx</u>
- ► These symptoms included:
  - ▶ insomnia that occurs in the middle of the night (79 percent);
  - ► <u>sadness</u> (nearly 71 percent),
  - problems with <u>concentration and decision-making</u> (nearly 70 percent)
  - ▶ But Suicidal ideation was the least common

# What Happens in the Real World?

▶ <u>50% of depressed</u> persons in the U.S. receive <u>no treatment at all</u>

Of those who seek treatment, the majority receive medication only, not psychotherapy

▶ Of those in treatment, only 1 in 10 on antidepressants

#### Antidepressants are used for many conditions:

- Abuse and dependence
- ADHD (in children and adolescents)
- Anxiety disorders
- Autism (in children)
- Bipolar disorder
- Eating disorders
- Fibromyalgia
- Neuropathic pain
- Obsessive-compulsive disorder
- Premenstrual dysphoric disorder

**Arthritis** 

Deficits caused by stroke

Diabetic neuropathy

Hot flashes

Irritable bowel syndrome

Migraine

Neurocardiogenic syncope (fainting)

Panic disorder

Post-traumatic stress disorder

Premature ejaculation

#### Ketamine: Many new studies

<u>Ketamine</u>: <u>cow anesthetic</u>; effects activating glutamate, increases BDNF; increases dendrites

► Instant cure of depression for 3 days; but also psychosis; stops SI for 1 week

► AZD6765 infusion also works on glutamate system, no psychosis

\* Ketamine shows significant therapeutic benefit in people with treatment-resistant depression

# Other Treatments of Depression

Psychotherapy

▶ Physical exercise

ECT (best for psychotic depression)

► Newer Txs: Vagal Nerve Stimulation, DBS, TMS

► Avoid anticholinergics

# Psychotherapy is as effective as either pills or placebos, with dramatically lower relapse rates.

Psychotherapy is as effective as medication for mild to moderate presentations of many different mental disorders.

► It takes longer to work, but its <u>benefits last longer and there many fewer</u> <u>side effects and complications.</u>

Comparisons between different psychotherapies usually end in tie scores: equally effective

#### **Depression Treatment Strategy**

- ▶ 1 Maintain sleep, <u>exercise</u>, nutrition and stress management techniques (e.g., cognitive behavior therapy and meditation).
  - All of these things will help no matter what therapy is chosen, and may be enough to thwart depression.

▶ 2 If the above don't work, try medication first with a good psychiatrist. Shop around, ask friends and family for recommendations. As with any type of doctor, not all psychiatrists are created equal.

# Treatment strategies

▶ 3 If medication does not work or the side effects from medication are intolerable, TMS (transcranial magnetic stimulation) seems a viable option. Ask your psychiatrist about this treatment. Check to make sure your insurance covers the procedure.

▶ 4 If TMS does not work, or you have tried a long list of medications without success, or if you are actively suicidal, ask your psychiatrist about ECT.

# **Empirically Supported Treatments**

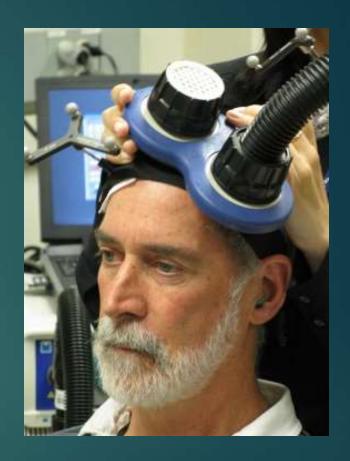
- Medication\* (<u>Anti-depressants</u>)
- Light therapy
- Mindfulness training
- Cognitive-Behavioral Therapy\* (CBT)
  - Cognitive change
  - Behavioral change
- Interpersonal Psychotherapy (IPT)
- Problem Solving Psychotherapy

# Combined treatment metaanalysis: Both Txs better

Combined treatment (medication and psychotherapy) appears to be more effective than treatment with antidepressant medication alone in major depression, panic disorder, and OCD.

#### Transcranial Magnetic Stimulation (TMS)

- ➤ 35 minutes: 10 magnetic pulses per second for four seconds, twice a minute, for a total of 3,000 pulses in each daily session
- ▶ 10% to 12% relapse rate (compared with 40% for antidepressant)
- ► TMS is typically in the range of \$400-500 per session for a total cost of about \$15,000.
- ► ECT costs around \$2,500 per session, \$25,000 for ten sessions, plus the cost of one week hospital stay in some cases.



#### **Social Cure**

Social groups are antidotes to unhappiness, and joining them is a costeffective adjunct to other depression treatments.

- ► To be effective as therapy, however, the group you join must be important to you.
  - ► Just attending group meetings—to play soccer, make art, sew or do yoga—does not significantly lower depression scores,
  - ► identifying with the group is associated with a marked decline in symptoms.

#### Self Care

▶ S Normal Schedule -- Sleep, Eat

P Pleasant Activities-- Fun, People

(Depression "Virus" Theory)

► E Exercise-- Any form (less depression & NCD)

► A Avoid Alcohol/Drugs

K Kind Thoughts-- Challenge negative thinking

▶ **U** Unwind-- Relax

P Practice Assertiveness -- Major depression trigger

#### Reasons for need for more frequent early contacts with MD

- ► 50% of older patients are not taking prescription within one week of prescription order
  - ► Don't pick up prescription
  - Family talks them out of it
  - ► They stop due to side effects
  - Later on patients stop because they are feeling better or they forget how much it helped

#### Kaiser Health Education

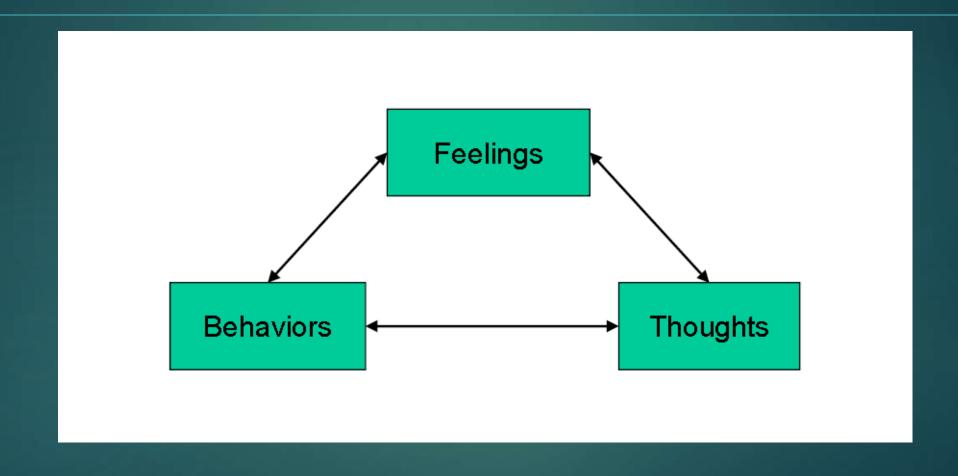
#### **Depression Classes**

▶ Depression Overview Class - 1 time , 1 hour: open to anyone

- Overcoming Depression Classes 8 weeks, 2 hours each
- ▶ Offered through Kaiser Member Health Education or Behavioral Health
- Schedule for each Kaiser Medical Center is different

► Also online Depression CBT: http://www.getselfhelp.co.uk/links2.htm

# Basic Theory underlying Cognitive Behavioral Therapy



## Cognitive Behavioral Therapy

Depression caused by =

Negative Mood Negative Thinking Behavioral Deactivation

- Cognitive Behavioral Therapy:
   Most evidence, research based treatment
- Three CBT Modules:
   Challenging Negative Thoughts: Thought Record Behavioral Activation
   People skills and assertiveness

#### Depression Research

- Historically, depression decreased in US with increased antidepressant use
- ► CBT shows clear advantages in long term outcome over medication
- ► Relapse Rate:
  - ▶ 80% relapse in year after stop antidepressant medication;
  - only 25% relapse if Cognitive Behavioral Therapy
- ► Best Recommendation: both antidepressant and CBT

## Exercise is medicine for depression

Exercise is an evidence-based treatment for depression.

Exercise can be as effective as a second medication for as many as 50% of depressed patients whose condition have not been cured by a single antidepressant medication.

► 1 hour a week has been shown to reduce depression; 3 x a week recommended

► Aerobic exercise is best

# Using a Pleasant Activities List

- ► Identify activities that were previously pleasurable
- Start small to insure success
- ▶ Be specific (when, where, how)
- Incorporate "Pleasure Predicting"
  - ▶ Using a scale of "1 10" to predict pleasure
  - ▶ Using a scale of "1 10" to document outcome

#### **Pleasant Activities List**

- Wear clothes I like
- Go outdoors (beach, mountains, park)
- Join groups I respect
- Talk about sports
- Watch or participate in sports
- Go to play, concert, ballet
- Play trip or vacation
- Buy things
- Do artwork or crafts
- Read sacred works
- Rearrange my room or house
- Read books or magazines

- Hear lectures, sermons
- Work on machines: car, bike
- Play board games
- Complete a difficult task
- Solve a puzzle, crossword
- Take a long bath or shower
- Write stories, poetry, music
- Ride in an airplane
- Sing
- Go to a church function
- Go to a meeting
- Play a musical instrument
- Solve a personal problem
- Put on makeup, fix hair
- Walk barefoot
- Go downtown
- Read cartoons, comic books
- Drive skillfully
- Boating: cañoe, row-boat
- Watch TV

Can download from www.charlesjvellaphd.com

## Shakespeare or the Buddhist scriptures

There is nothing either good or bad but thinking makes it so. (Shakespeare)

► We are what we think.
All that we are arises with our thoughts.
With our thoughts we make the world....
(from the Dhammapada)

Basis of CBT

## Thought Record: daily 5 minutes

- Best Predictor of long term decrease in depression
- Negative Thoughts: inner critic about self, others, future

Levels of Negative Thinking:

1 - Negative Thoughts: "I cannot do this."

- 2 Assumptions: If...Then statements
- 3 Core Beliefs: Absolutes, Early trauma: i.e. I'm defective, I'm unloveable

#### THOUGHT RECORD

1. Situation	2. Moods	3. Automatic Thoughts (Images)	4. Evidence That Supports the Hot Thought	5. Evidence That Does Not Support the Hot Thought	6. Alternative/Balanced Thoughts	7. Rate Moods Now
Who were you with? What were you doing? When was it? Where were you?		Answer some or all of the following questions: What was going through my mind just before I started to feel this way? What does this say about me? What does this mean about me? my life? my future? What am I afraid might happen? What is the worst thing that could happen if this is true? What does this mean about how the other person(s) feel(s)/think(s) about me? What does this mean about the other person(s) or people in general? What images or memories do I have in this situation?	Circle hot thought in previous column for which you are looking for evidence. Write factual evidence to support this conclusion. (Try to avoid mindreading and interpretation of facts).	Ask yourself the questions in the Hint Box (p. 70) to help discover evidence that does not support your hot thought.	Ask yourself the questions in the Hint Box (p.95) to generate alternative or balanced thoughts.  Write an alternative or balanced thought.  Rate how much you believe in each alternative or balanced thought (0-1 00%).	Copy the feelings from Column 2. Rerate the intensity of each feeling from 0-100% as well as any new records.

From Mind Over Mood by Dennis Greenberger and Christine A. Padesky 1995. The Guilford Press.

1 Situation

Death of partner

New Medical diagnosis

Partner forgot Valentine

Wife Angry

**IRS** letter

2 Mood

Depressed

Anxious

Sad

Angry

**Jealous** 

\_\_\_\_\_

Worthless

Hopeless

Helpless

3 Thoughts

I'll never get over this event

I'll never get better \*

This always happens to me

She doesn't love me

I am a failure

I am unloveable

4 Proof/Evidence

-- Support

I was in the hospital for months

I had to try many medications

I was in pain

My partner was inattentive

5 Proof/Evidence

-- Contradictory

I eventually got better

My partner cares for me

Medication helped

Dog +

6 Balanced Thought

I got ill. It was not pleasant.
But this has happened
before and I always got
better.

7 Emotion Now

I feel less...

#### Reading

- Undoing Depression: What Therapy Doesn't Teach You and Medication Can't Give You – Richard O'Connor
- Overcoming Depression One Step at a Time Michael E., Ph.D. Addis and Christopher R. Martell
- ► Feeling Good David D. Burns
- ► Against Depression Peter D. Kramer
- Mind Over Mood: Change How You Feel by Changing the Way You Think - Dennis Greenberger and Christine Padesky

#### Websites

- http://moodgym.anu.edu.au/welcome
- http://www.psychologyinfo.com/depression/
- http://www.dbsasandiego.org/speakers/marc-murphy-presentation.pdf
- http://www.montrealcbtpsychologist.com/userfiles/373150/file/Thought\_ Record\_Worksheet.pdf

#### What Next...

- ► Choose how to deal with depression:
  - ► Kaiser Health Education: 415-833-3450
  - ► Kaiser Psychiatry: 415-833-2292
  - ► Your Medical Plan

- ► Community Mental Health Access Referral Line (415) 255-3737
  - ▶8 AM 5 PM, Monday Friday. Client can have Medi-Cal or be uninsured, but no private insurance.

# George Bernard Shaw

"We don't stop playing because we grow old;

we grow old because we stop playing."

#### Contact

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**415-939-6175**