



Clinical Depression in the Elderly

Jason E. Schillerstrom, MD
Assistant Professor
UTHSCSA – Department of Psychiatry
schillerstr@uthscsa.edu



Learning Objectives

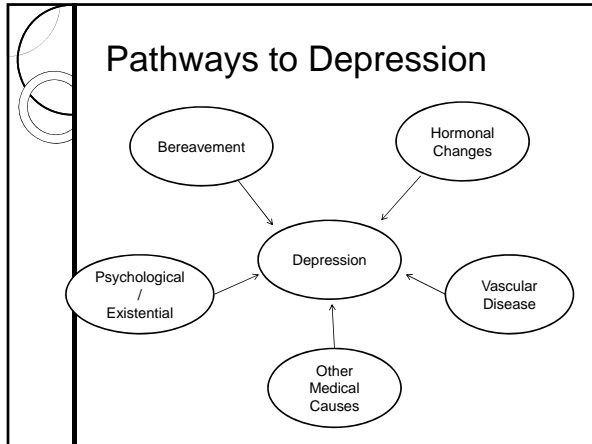
- List the DSM-IV criteria for Major Depressive Disorder and screening questions for depression.
- Discuss suicide risk assessments in elders.
- Describe the relationship between depression, cognition, and functional impairments.
- Describe the relationship between depression and mortality.
- Describe the existential psychology of depression in elders.



DSM-IV Criteria

- 5 or more symptoms for 2+ weeks:
 - Depressed mood most of the day, nearly every day.
 - Diminished interest or pleasure.
 - Change in appetite.
 - Change in sleep.
 - Psychomotor agitation or retardation.
 - Loss of energy.
 - Guilt or feelings of worthlessness.
 - Problems with concentration.
 - Recurrent thoughts of death or suicide.

American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, 4th ed., Text Revision. Washington, DC, APA, 2000, pp 327.



- ### Other Diagnoses Associated with Depression
- ⊗ Bereavement
 - ⊗ Dysthymic Disorder
 - ⊗ Bipolar Disorder I and II
 - ⊗ Personality Disorders
 - ⊗ Substance Use Disorders

Geriatric Depression Scale

GERIATRIC DEPRESSION SCALE (GDS)
(SHORT FORM)

MOOD ASSESSMENT SCALE

1. Are you basically satisfied with your life?	Yes / No
2. Have you dropped many of your activities and interests?	Yes / No
3. Do you feel that your life is empty?	Yes / No
4. Do you often get bored?	Yes / No
5. Are you in good spirits most of the time?	Yes / No
6. Are you afraid that something bad is going to happen to you?	Yes / No
7. Do you feel happy most of the time?	Yes / No
8. Do you often feel helpless?	Yes / No
9. Do you prefer to stay at home, rather than going out and doing new things?	Yes / No
10. Do you feel you have more problems with memory than most?	Yes / No
11. Do you think it is wonderful to be alive now?	Yes / No
12. Do you feel pretty worthless the way you are now?	Yes / No
13. Do you feel full of energy?	Yes / No
14. Do you feel that your situation is hopeless?	Yes / No
15. Do you think that most people are better off than you are?	Yes / No

1 point for each underlined response
SCORE: _____

Score one point for each of the underlined answers. Scores of 5 or more suggest depression. Scores above 10 are strongly suggestive of depression.
Leshner EL, Berryhill JS. Validation of the Geriatric Depression Scale-Short Form among inpatients. J Clin Psychol. 1994;50:256-260.

Summary


- ☞ Depression is a clinical illness.
- ☞ The diagnosis of Major Depressive Disorder is made by self-report of relevant symptoms.
- ☞ Medical and psychological disturbances can lead to depression.
- ☞ It is easy to screen for depression – a GDS score ≥ 5 is suggestive of clinically significant depression.

Suicide

- ☞ Annual suicide rate in the United States for the general population = 14.2 suicides/ 100,000 population (>32,000 fatalities per year; 89 fatalities per day).
- ☞ More common cause of death than homicides.
- ☞ There are approximately 5,000,000 suicide attempts in the U.S. per year.
- ☞ Increased Age
 - Rate for men age 65 years or older is 29 / 100,000.
 - Elders attempt less often but are more successful.
 - Elders (10% of population) account for 25% of suicides.

Suicide Epidemiology


Suicide Attempts, 2003		
Behavior	Rate per 100,000	Number
Suicide Attempts	10.8	31,484
Cut / pierce	0.2	571
Drowning	0.1	339
Fall	0.2	573
Fire	0.1	150
Poisoning	1.9	5,462
Suffocation	2.3	6,635
Firearm	5.8	16,907



Suicide Risk Factors

‰ Race (Males)


- White: 19.6 / 100,000
- Native American: 19.5 / 100,000
- Black: 9 / 100,000
- Asians: 7.9 / 100,000
- Hispanic: 8.6 / 100,000



Suicide Risk Factors

‰ Race (Women)

- Native American: 6.2 / 100,000
- White: 5.1 / 100,000
- Asian: 3.4 / 100,000
- Black: 1.8 / 100,000
- Hispanic: 1.8 / 100,000



Suicide Risk Factors

‰ Living Status


- Never married > widowed > divorced > married without children > married with children

‰ Religion

- Protestant > Jewish > Catholic

‰ Chronic Illness


- Cancer, COPD, Pain, dialysis, HIV, Huntington's disease



Evaluation of Suicidal Ideation

⌘ The first step is to ask them about it. Do not assume. Sample questions:

- "Do you think it is wonderful to be alive now?"
- "Is life still worth living?"
- "Do you ever have thoughts of wanting to die?"
- "Do you ever think about taking your own life?"
- "Do you have thoughts of wanting to take your life now?"
- "Have you thought about a plan to kill yourself?"




Summary

⌘ Suicide is a "top 10" cause of death.

⌘ Highest risk group is:

- Older persons (>65 years)
- White
- Male
- Protestant
- Chronic illness

⌘ If you don't ask, you won't know.



Depression and Disability

⌘ 13 studies report that baseline depression is associated with functional decline.

⌘ 6 studies report that incident depression was associated with functional decline.

⌘ 1 study reports resolution of depression is associated with functional improvement.

⌘ 2 studies reported no association between depression and disability.

Depression, Medical Illness, and Disability


- 8% 4 studies report depressed participants are more likely to have greater medical illness burden.
- 8% In multivariable models, depression is associated with disability independent from medical illness.
 - o gait disturbances
 - o coronary artery disease
 - o cerebrovascular disease
 - o peripheral vascular disease
 - o osteoporosis
 - o hypertension

Depression, Cognition, and Disability

- 8% Only 6/12 studies report depression is associated with disability independent of cognition.
- 8% Only 6 studies report cognition is independently associated with functional decline.
- 8% A major weakness of studies is that cognition is assessed with general cognitive screening instruments and not measures sensitive to EXECUTIVE FUNCTION.

UTHSCSA APS Capacity Assessments

Region 8 Leadership: Jo Ann Tobias-Molina
Sonia Samples
Lisa Loya



Regional Offices

- 1 Lubbock
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- 5 Brownsville
- 6 El Paso
- 7 Austin
- 8 San Antonio
- 9 McAllen
- 10 El Paso
- 11 El Paso

UTHSCSA Capacity Assessments

- ⌘ Clinical Interview
- ⌘ Neuropsychological Screening
- ⌘ Performance Based Functional Status Assessment
- ⌘ Observation of Living Space
- ⌘ Risk Assessment

Mean neuropsychological performance of APS referrals for decisional capacity assessments.

Cognitive Battery*	Cognitive Domain	Range	Failing Threshold	Number of clients tested	Mean (SD)	Percent Failing
EXIT25	executive function	0-50	≥15	55	25.9(6.2)	96%
MIS	memory	0-8	≤4	62	4.2 (2.7)	52%
MMSE	general cognition	0-30	≤24	62	22.4(5.4)	61%
CLOX1	executive function	0-15	≤10	63	7.3(3.3)	76%
CLOX2	visuospatial ability	0-15	≤12	64	10.6(2.7)	67%
GDS	depression	0-15	≥5	62	3.4(3.1)	28%

Schillerstrom JE, Birkenfeld EM, Yu AS, Goldstein DJ, Royall DR. Neuropsychological correlates of performance based functional status in elder Adult Protective Services (APS) referrals for capacity assessments. Journal of Elder Abuse and Neglect (in press).

Performance Based Functional Assessment

- ⌘ Money Management Task
 - Read and interpret a bill
 - Demonstrate how to write a check
 - Demonstrate how to read and use a check register
- ⌘ Telephone Task
 - Who to call in an emergency
 - How to use a phone book
 - How to dial a phone

Cognitive Correlates of Money Management

Screening Measures	r	p	R ² (n=41)	p
EXIT25	0.69	<0.001	0.34	<0.001
MIS	-0.25	0.15		
MMSE	-0.41	0.01		
CLOX1	-0.45	0.006		
CLOX2	-0.40	0.02		
GDS	-0.15	0.40		

Schillerstrom JE, Birkenfeld EM, Yu AS, Goldstein DJ, Royall DR. Neuropsychological correlates of performance based functional status in elder Adult Protective Services (APS) referrals for capacity assessments. Journal of Elder Abuse and Neglect (in press).

Cognitive Correlates of Telephone Ability

Screening Measures	r	p	R ² (n=40)	p
EXIT25	0.61	<0.001	0.37	<0.001
MIS	-0.41	0.014	0.09	0.02
MMSE	-0.55	<0.001		
CLOX1	-0.28	0.10		
CLOX2	-0.27	0.11		
GDS	0.07	0.68		

Schillerstrom JE, Birkenfeld EM, Yu AS, Goldstein DJ, Royall DR. Neuropsychological correlates of performance based functional status in elder Adult Protective Services (APS) referrals for capacity assessments. Journal of Elder Abuse and Neglect (in press).

Cognitive Correlates of Summed IADL

Screening Measures	r	p	R ² (n=36)	p
EXIT25	0.76	<0.001	0.58	<0.001
MIS	-0.36	0.03	0.06	0.03
MMSE	-0.54	0.001		
CLOX1	-0.44	0.007		
CLOX2	-0.40	0.02		
GDS	-0.07	0.70		

Schillerstrom JE, Birkenfeld EM, Yu AS, Goldstein DJ, Royall DR. Neuropsychological correlates of performance based functional status in elder Adult Protective Services (APS) referrals for capacity assessments. Journal of Elder Abuse and Neglect (in press).

Executive Function

- ⌘ DSM IV Definition: the ability to think abstractly and to plan, initiate, sequence, monitor and stop complex behavior
- ⌘ That set of cognitive processes that allow one to act independent of the environment instead of displaying behaviors mediated by the environment

Loss of Executive Control Affects Many Functional Domains

Royall, DR

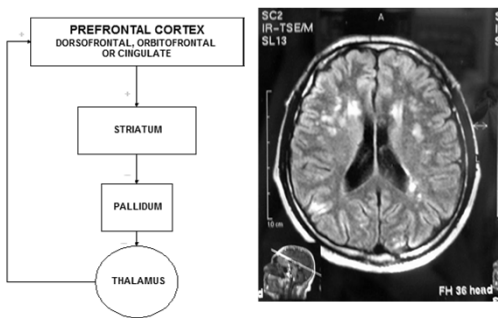
Executive Function and Functional Status

- ⌘ Executive function explains 48% of the variance of level of care required by elderly retirees.
- ⌘ Executive function explains 28% of the variance of ADL's in patients with Alzheimer's Disease.
- ⌘ Executive function discriminates between patients requiring no supervision, moderate supervision, and heavy supervision after traumatic brain injury.

Executive Function and Functional Status


- Executive impairment is associated with non-adherence to complex medication regimens.
- Executive function is associated with resistance to care.
- Executive function predicts functional outcome in patients hospitalized on a rehabilitation medicine service.

Prefrontal Circuits




Summary

- Multiple studies demonstrate that depression is associated with decreased self-care abilities.
- Depression in elders is associated with increased medical comorbidity, particularly vascular disease and vascular disease risk factors.
- Depression in elders is associated with cognitive impairments, particularly executive function impairment.
- It is likely that these three covariates interact to cause disability in elders.



Depression and Mortality


- Multiple studies demonstrate that depression is independently associated with increased mortality in elders.
- Physiological changes associated with depression:
 - disruption of hypothalamus-pituitary-adrenal axis
 - cytokine changes – increased inflammatory response
 - decreased heart rate variability



Depression and Mortality in Elders Referred for Geriatric Psychiatry Consultation

- N=89 referrals for geriatric psychiatry consultation.
- Stratify by GDS cut-point >6
- 7-year follow-up period
- Covary age, gender, medical illness burden, number of medications, residential status, executive function, and general cognition

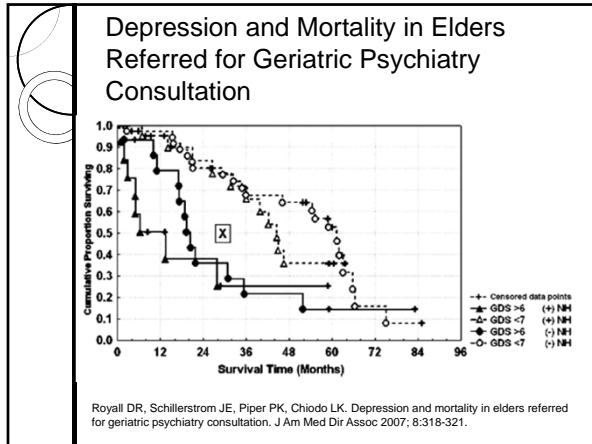
Royall DR, Schillerstrom JE, Piper PK, Chiodo LK. Depression and mortality in elders referred for geriatric psychiatry consultation. J Am Med Dir Assoc 2007; 8:318-321.



Depression and Mortality in Elders Referred for Geriatric Psychiatry Consultation

- Independent predictors of mortality:
 - GDS (depression)
 - Medical illness burden (CIRS)
 - Age
 - Gender
- Did not predict survival:
 - MMSE (general cognition)
 - EXIT25 (executive function)
 - Number of medications
 - Residential Status

Royall DR, Schillerstrom JE, Piper PK, Chiodo LK. Depression and mortality in elders referred for geriatric psychiatry consultation. J Am Med Dir Assoc 2007; 8:318-321.



Mortality in Community Dwelling Elders with GDS \geq 6

Covariables	Odds Ratio (CI)
Age	1.71 (1.51,1.95)
Age, Sex, Socioeconomics	1.75 (1.53-1.99)
Age, Sex, Socioeconomic, Medical Illness, Disability	1.31 (1.14-1.51)
Age, Sex, Socioeconomic, Medical Illness, Disability, and Cognition	1.30 (1.13-1.49)
Age, Sex, Socioeconomic, Medical Illness, Disability, Cognition, Drinking and Smoking	1.27 (1.11-1.45)

N=13,097, >75years old, 3 year follow-up

Adamson JA, Price GM, Breeze E. Are older people dying of depression? Findings from the medical council research trial of the assessment and management of older people in the community. *J Am Geriatr Soc* 2005; 53:1128-1132.

Summary

- ⌘ Depression is associated with toxic physiological changes.
- ⌘ Depression is an independent risk factor for mortality.
- ⌘ The mortality of depression is not mediated by cognition.


The Psychology of Depression in Elders:
Yalom's 4 Ultimate Concerns

- ☞ Death
- ☞ Freedom
- ☞ Isolation
- ☞ Meaninglessness

What does death mean to you?


What does death mean to you???

A Venn diagram consisting of three overlapping circles. The top circle is labeled 'Psychological', the bottom-left circle is labeled 'Spiritual', and the bottom-right circle is labeled 'Physical'. The circles overlap in the center and at the intersections between two circles.




Death

- ∞ Death is man's most pervasive fear.
- ∞ We exist now but one day we shall cease to be.
- ∞ There is no escape from it.
- ∞ A core existential conflict is the tension between the awareness of the inevitability of death and the wish to continue to be.




Death Anxiety

- ∞ Rank ordering the consequences of death (n=563)
 - My death will cause grief to my relatives and friends
 - All my plans and projects would come to an end
 - The process of dying might be painful
 - I could no longer have any experiences
 - I would no longer be able to care for my dependents
 - I am afraid of what might happen to me if there is a life after death
 - I am afraid of what might happen to my body after death




Behavior is Governed by Death Anxiety

- ∞ The fear of death plays a major role in our internal experience; it haunts us as nothing else does; it rumbles continuously under the surface on the rim of consciousness.
- ∞ Children, at an early age are pervasively preoccupied with death and their major developmental task is to deal with fears of obliteration.
- ∞ To cope with death, we erect defenses against death awareness based on denial.




How do we live forever?




The Quest for Immortality

- ⌘ Biological: living on through one's progeny
- ⌘ Theological: living on in a different, higher plane of existence
- ⌘ Creative: living on through one's works
- ⌘ Eternal Nature: one survives through the swirling life forces of nature
- ⌘ Transcendent: losing oneself in a state so intense that time and death disappear and one lives in the continuous present




Death Defenses

- ⌘ Two psychological defenses of death are based on denial:
 - *Specialness*: one is templated with a sense of specialness, and one summons this ready belief as a shield against death anxiety
 - *The Ultimate Rescuer*: "someone will save me"




Specialness

- ⌘ Compulsive Heroism: Hemingway
- ⌘ The Workaholic: living = becoming
 - "getting ahead"
 - "moving up"
 - "time is an enemy"
- ⌘ Narcicissm
- ⌘ Aggression and Control: one's own fears are avoided by enlarging one's sphere of control (soldiers, doctors, priests, morticians).




Death Transcendence

- ⌘ Recognizing that life and death are interdependent; they exist simultaneously, not consecutively.
- ⌘ Learning to live well is to learn to die well; and conversely.
- ⌘ Although death ultimately takes life, it is the idea of death that allows us to live life.




Death Transcendence

- ⌘ Transcendence:
 - *Forgetfulness of being*: immersion in the everyday diversions of life. Surrendering to concern about the way things are.
 - *Mindfulness of being*: to be continuously aware of being; to marvel that things are.



Behavior Change in the Terminally Ill

- ⌘ A rearrangement of life's priorities
- ⌘ A sense of liberation: being able to choose not to do things they do not wish to do
- ⌘ An end to postponement
- ⌘ A vivid appreciation of the elemental facts of life: the wind, falling leaves, the last Christmas
- ⌘ Deeper communication with loved ones
- ⌘ Fewer interpersonal fears: less fear of rejection, more willing to take risks



**The Psychology of Depression in Elders:
Yalom's 4 Ultimate Concerns**

- ⌘ Death
- ⌘ Freedom
- ⌘ Isolation
- ⌘ Meaninglessness
