



Part II: Treatment of Older Adults: Depression, Anxiety, & Cognitive Problems

Program will begin promptly at noon.

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Part II: Treatment of Older Adults: Depression, Anxiety, & Cognitive Problems

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Disclosure Statement:
Dr. Hyer has nothing to disclose.

Part 2: Anxiety and Cognition in Older Adults



Question 1

Big Picture

- Anxiety rules
- Cognitive problems
- Treatments poor



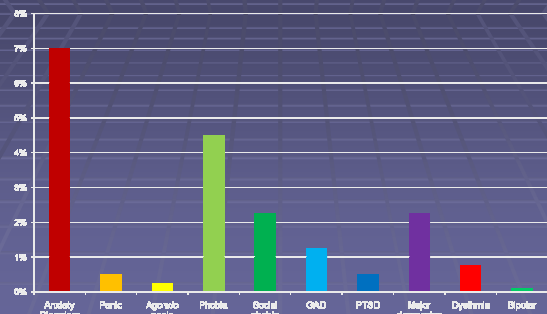
- Meds first
Psychosocial next
- Assess
Over time
- Use
modules

Anxiety: "The Silent Giant"

- 10% to 20% among older adults;
- Twice as prevalent as dementias; More prevalent as MDD
- Problems: Physical complications, lower well being, increased mortality, CAD, overutilize services
- If depressed: 38-46% have comorbid anxiety disorders;
- If anxious: 15% depressed
- 50% to 97% are EARLY-ONSET disorders with late-life exacerbations
- Problem: CBT (GAD) are typically 10-20% lower than in younger samples, regardless of disorder.

Cassidy et al. *Geniatr Aging*, 2008, 11(3): 150-156.

Prevalence of Anxiety and Mood Disorders in Older Adults: NCS-R



GAD-Facts

- Born 1980 but DSM-IV → uncontrollability, not unrealistic
- National Comorbidity Study: 5.1%: 20% problems; 65% comorbid.
- Prevalence may be as high as 10%
- Subsyndromal problem: Sleep, health, pleasant events
- Silent disorder: Axis II

Anxiety

- Syndrome, sign and a symptom
- Cohort trajectory of anxiety is curvilinear (up, down and up (75))
- Phenotypic differences (not adhere to DSM)
- Problem “true anxiety” and “secondary anxiety.”
- Subthreshold is serious.
- Anxiety and Executive Dysfunction
- Treatment: Need functional attachment with symptoms and real world issues (medical, social, financial, family).
- Treatment: Modules better than inflexible manuals.

Data

- OCD → not known; declines with age; severity lessens with age;
 - 1.3% males and 1.0% females.
- GAD → 1%-7%. Up 60% in last 5 years: Graves Disease, COPD.
 - Occult booze, can occur >65.
- PTSD → Lower than other ages but high for ASD (50% MVAs):
 - 20% of all men > 65 were exposed to combat
- Phobias → 3.3% men and 7.0% females.
 - Most prevalent.
- PD → 0% males and .2% females: if PA → medical reason
 - COPD 8%-24%.
- Stroke (25% + 33% worried), thyroid, endocrine, vitamin, hypoglycemia, CA, PD (21%), waiting for a transplant (16%)
- Early: OCD, PD, and Specific Phobias
- Late: PTSD, Agoraphobia, Adjustment with Anxiety

Anxiety and Cognition

- The presence or severity of anxiety is associated with lower cognitive performance in older adults.
- Effect Size is generally in the moderate levels
- Two longitudinal studies which also adjust for baseline performance show that clinically significant anxiety predicted accelerated cognitive decline (DeLuca & Lentz, 2005; Sinoff & Werner, 2003).
- People (102 in community) with increased anxiety only → speed of processing, attention and inhibition problem. Depression syms not associated with anything. (Beaudreau and O'Hara, 2009)
- Comorbid depression and GAD is a special problem

(Beaudreau & O'Hara, 2008)

Neurobiological Perspective - Le Doux (1996), Gorman (2000)

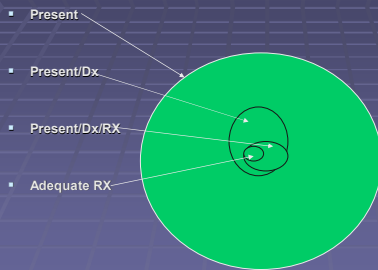
Antianxiety drugs

Direct suppression of fearful outputs from the amygdala;

CBT

Indirect suppression of amygdala; implementation of reason over automatic fear responses.

Outcomes and Therapies



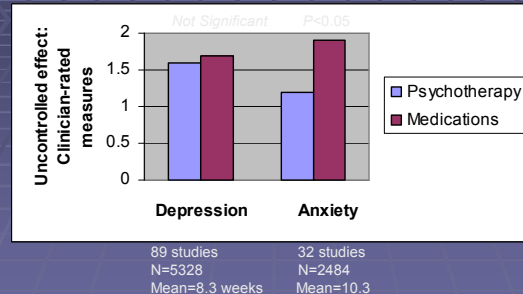
Question 2

Escitalopram in PCCs

- GAD: efficacy, safety and tolerability of escitalopram in older adults → Escit (85) or Placebo (92); 12 weeks (10 or 20 mg)
- Outcomes: CGI, time to response, anxiety and role functioning, social functioning
- Response rate: Escit → 69%; Placebo → 51% but **no difference in ITT**.
- Anxiety symptoms and role functioning: Escitalopram better

Lentz et al. 2009

Meta-Analyses Comparing Psychotherapy and Medication for Geriatric Depression and Anxiety



Pinquart et al. *Am J Psychiatry*. 2006; 163(9): 1493-1501.
Pinquart, Duberstein. *Am J Geriatr Psychiatry*. 2007; 15(8): 639-651.

Limitations of Medications

- Many respond, few remit
 - Construct of "I'm a worrier" does not seem to change
 - Many will not accept medication
 - Many will discontinue
- Uncertain long-term benefits
 - Not thought to have "durable" benefits (i. e., maintenance after med discontinuation)
- Phobias unlikely to respond to medication
 - Medication would even impair response to therapy

Anxiety Therapies

- Meds both anxiolytic and SSRI (e.g., Lenze, et al., 2009; Pinquart & Duberstein, 2007)
- CBT (Stanley et al., 2009)
- PST (Areal, 2010)
- Integration of CBT and IPT (Newman et al., 2004)
- ACT (Roemer & Orsillo, 2007)
- Attention Training (Mohlman, 2007; Papageorgiou & Wells, 1998)
- Intolerance of uncertainty (Ladouceur et al., 2004)
- Emotional dysregulation (Mennin, 2006)
- Metacognition (Wells & King, 2006).

Modular Psychotherapy

- Wetherell et al (2009): 31 older adults with GAD or ANOS received Modular or Extended Care Rx.
- Education, relaxation, cognitive restructuring, thought stopping/schedule worry, exposure, behavioral activation (pleasant events), sleep hygiene, problem solving, life review, acceptance (mindfulness), time management, pain management, and relapse prevention.
- Results: Both work rather well.

Conclusion

- CBT works for GAD; symptoms of anxiety are less
- Relaxation training works on subjective anxiety symptoms
- Younger adults do better
- Group vs individual ???
- Relaxation works also: how (?) decreasing muscle tension or increasing mindfulness
- No good EBT data on phobias, PD (cases), PTSD (Thorp, 2007; Hyer, 2000), OCD (cases)

Anxiety Assessment



Anxiety Assessment

- Clinician Ratings
 - ADIS-IV, SCID, MINI, HRSD (17 items) or HARS (13 items)
 - Barlow: One Q: Do you worry excessively about minor matters?
- Behavioral Assessments
 - Self Monitoring
- Self Report Measures
 - PSWQ, STAI, MAQ, SAST, Worry Questionnaire, Worry Scale for Older Adults, DASS, ASI, POMS, BAI, PANAS, ATQ (Automatic Thoughts Quest, 21 items)
 - Diary (interpersonal avoidance issues)
- Also use MBMD, PAI
- Also consider Anxiety and Aging Scale (AAS), Death Anxiety Scale (DAS)

GAD-7 Scoring for Anxiety Severity

GAD-7 Total Score	Anxiety Severity
0-4	Minimal
5-9	Mild
10-14	Moderate
15-21	Severe

Spitzer et al. *Arch Intern Med.* 2006;166:1092-1097.

Question 3

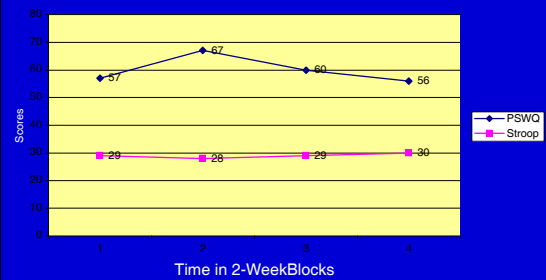
Anxiety

MEASURE	AAMI (n=35)	MCI (n=34)	DEM (n=42)
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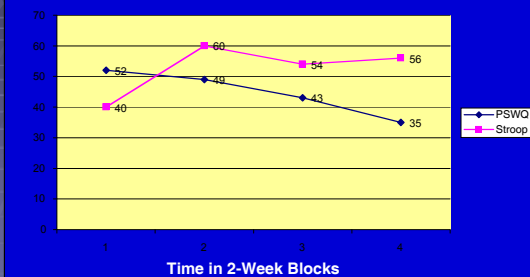
▪ GAD-7	4	6	10
▪ SAST	17	22	23
▪ PSWQ	35	51	56
▪ MBMD-TEN	68	72	71

And, anxiety is correlated with worse caregiver burden, poorer adjustment, and greater cognitive decline

Nonresponders PSWQ, Stroop, n=6



Responders PSWQ, Stroop, n=8



Modular intervention Use a menu

- Relaxation
 - Sleep guidelines
 - Problem solving skills training
 - Worry Control
 - Acceptance/Mindful
 - Behavioral activation
 - Pain management
 - Pleasant activities
 - Assertiveness training
 - Time management
 - Cognitive therapy
 - Exposure
 - Family involvement
- Phone: Mohr et al., 2005; Simon et al., 2004; Psychotherapy helped by telephone
- Modules: Chorpita et al., 2004; Henin et al., 2001; Patient and therapists choose the modules

Anxiety Treatment

1. Education: Persuade patients to go out into the world and seek opportunities to get anxious; Learn to tolerate anxiety
2. Self Monitor: Live in the Now: Present moment, colors, sounds
3. Relaxation Methods (2/3 do OK): want effortless method
4. Exercise
5. Exposure
 interoceptive Exposure
6. Cognitive Rx
7. Interpersonal factors
8. Stimulus control of worry

Mercer Recommendations for Anxiety Interventions

- Assess in usual way plus cognition
- First-line treatment is SSRI/SNRI
- Use case manager
- Choose modules
 - First line: relaxation training
 - Second line: CBT
- If problems: Motivational interviewing to encourage a medication trial, plus
 - Always: Supportive contact and communication with prescriber/CM
- Monitor, see periodically, and watch for relapse

Mercer Protocol for Geriatric Depression and Anxiety

- Treat depression first
- Assess for EF
- Use case manager
- Effective first line treatments include:
 - Use Meds if.....
 - Behavioral activation
 - Problem-solving therapy
- Relaxation training be helpful adjunct
- Exercise
- Response WILL be slower than in patients without anxiety

Fear of Falling

- 25% of older adults report fear of falling
- 10% avoid several activities as a result of fear
- Including 5% of those who have never fallen
- 3% or more avoid leaving their homes or yards
- Consequences:
 - Decreased physical activity
 - Disability
 - Depression
 - Falls
- Those with no falls but high fear have a nearly 5-fold risk of nursing home admission, even after controlling for age and disability

Wetherell, 2010 AAGP

Last Section: Cognitive Decline



Cognitive Decline

- "Brain games do not improve people's cognitive skills."

Nature, April 20, 2010

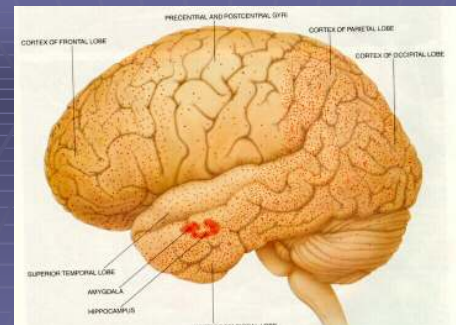
Help with games only
11,430

- Words
 - Neurogenesis
 - Symmorphosis
 - Transfer and Durability

Cognitive Decline

- Multicausal
- Cognitive reserve
- "No currently available medicines can prevent the onset of cognitive decline."
- "No RCTs were identified that evaluated the effects of cognitive engagement, physical activities, or other leisure activities for delaying onset of AD."

NIH Conference on AD
and Cognitive Decline, 2010

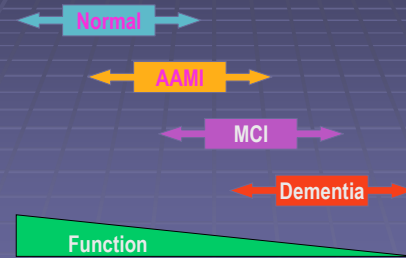


Brain of an Alzheimer patient characteristically shows numerous plaques of amyloid beta-protein (indicated by stippling) in specific brain areas. These plaques become centers for the degeneration of neurons.

MWC © '99

Question 4

Continuum of Cognitive Decline



Mrs. Normal

Variable	%
Remote Personal Memory	100
Attention	90
Visuo-spatial	90
Language	100
Abstraction	80
Praxis	80
Processing speed	80
Executive Functioning	90
Delayed Memory	80

Mrs. AD

Variable	%
Remote Personal Memory	95
Attention	90
Visuo-spatial	70
Language	60
Abstraction	60
Praxis	70
Processing speed	80
Executive Functioning	40
Delayed Memory	20

Dementia

- A syndrome of **acquired**, persistent impairment in various cognitive domains
 - **Memory +**
 - Language
 - Visuospatial abilities
 - Executive functions
 - Calculation
 - Praxis
 - Recognition
- **+ Function**

Functional Competence

- Baseline scores of IADL scale predicts 3-year incident dementia in 1582 community dwelling older adults, even after adjusting for MMSE (Barberger-Gateau, et al., 1999)
- 40% of variance of functional decline is accounted for by cognitive decline (Mortimer et al 1992).
- MMSE and ADLs/IADLs (ADLs = .51, IADLs = .69) for dementia diagnostic clinic samples. (Lecky & Beatty, 2002).
- Intact cognition is a necessary but not sufficient condition for successful performance of everyday tasks in aging.

Question 4

Current Concepts in MCI

- MCI differs from normal aging.
- Several types
- aMCI: 1, 1.5, 1.96 sd low on memory
- Neuropathology consistent with AD
- Biomarkers: High CSF tau
- Progression: 10-15% per year convert to AD
- Preserved functional abilities
- Absence of diagnosed dementia
- Treatment: No FDA approved treatment

Petersen et al. 2001
Ref: Arch Neurol vol. 58, 1985-1992

Mrs MCI

66 yo, wf, married, PhD, living in Macon
12 months ago memory problem

Data:

Premorbid IQ (OPIE-V) = 122

MMSE = 30

Overall current score (RBANS) = 102 (55%)

DOMAINS

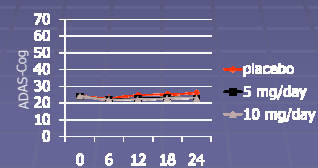
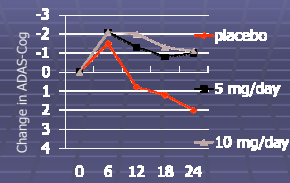
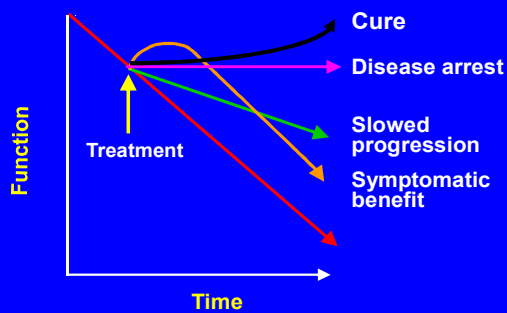
Immediate Memory	84 (8%)
Visuospatial	114 (76%)
Language	122 (88%)
Attention	112 (70%)
Delay Memory	76 (25%)
Exec Functioning	Trails B (40%) Trails A (71%) Stroop Color Word (t score 48)
Depression	moderate
Anxiety	mild

Predictor Algorithm: MCI→AD

- 0-24% → < 3 predictors abnormal
 - 35-67% → if 3 predictors abnormal
 - 84-92% → if 4 predictors abnormal
 - 98% → 5 predictors abnormal
- SRT, UPSIT, FAQ, Hippocampal volume, Entorhinal volume

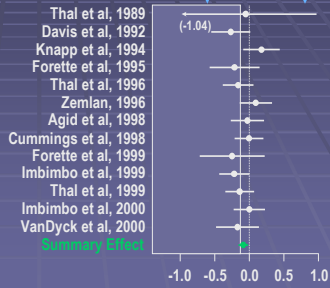
Devanand, 2008

Treatment Outcomes



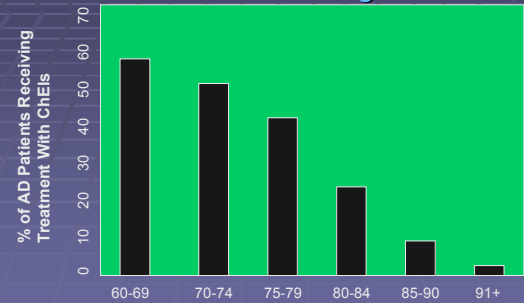
Reducing Functional Impairment With ChEIs: Instrumental Activities of Daily Living (IADL) Scale

For the 13 trials using IADLs, summary meta-analysis indicated that patients randomized to ChEIs improved compared with placebo indicating a small but statistically significant benefit in IADLs from the use of ChEIs.



[Trinh NH, et al. *JAMA*. 2003;289:210-216]

Treatment With ChEIs Decreases With Age



[Lucca U et al. *Arch Neurol* 2006; 63:154-155]

What is the bottom line?

Widely varying opinions:

“ChEIs should be considered as a standard of care.”

[Cummings JL. *New Engl J Med* 2004;351:56-67]

“The scientific basis of ChEIs for the treatment of AD is questionable.”

[Kaduszkiewicz H, et al. *BMJ* 2005;331:321-327]

Healthy skepticism is appropriate when statistically significant results have questionable clinical significance.

“ChEIs should be considered in patients with mild to moderate AD, although studies suggest a small average degree of benefit.”

[Practice parameter of the American Academy of Neurology. *Neurology* 2001;56:1154-1166]

PCC Summary

Intervention	Study type
EFFECTIVE	
Physical activity	2 cohort studies
Leisure activities	Cohort study
Cognitive training	RCT
Treating hypertension	RCT
Mediterranean diet	Case control study
NO BENEFIT (INEFFECTIVE)	
Lowering homocysteine	RCT
Aspirin	Cohort
Cardiopulmonary bypass	RCT
Donepezil and/or vitamin E	RCT
HARMFUL	
Estrogen/progestin in women	RCT

Conclusion: Practical Considerations

- For symptomatic improvement, an individual patient may have a robust response, rather than the average.
- Use ChEIs to stabilize function rather than improve cognition.
- Treatment may occur throughout the entire course of illness.
- Choice of a specific ChEI is guided by tolerability and ease of use, not efficacy.
- Assessment of efficacy relies heavily on physician and the caregiver's “clinical global impression.”

Cognitive Rehab Helps

- Chestnut et al. (1999) --32
- Cicerone et al. (2000) --171
- Cicerone et al. (2005) --77
- Rohling et al. (2008) --78

Last 5 Years

- Sustaining skills is increasing – MCI and Early Dementia
- Specificity of transfer – EF
- Plasticity – skin
- Change function, not brain
- Soft things count -- attitude, exercise, N, Optimism, Stress response

Question 5

For Whom the Mind Wanders

- Process Information more slowly
- Sensory deficits
- Reduced working memory
- Increased fatigue and stress
- Dual attention
- Poor Executive Functioning
- Stress/Unfit/ETOH/Smoking/
- Poor Sleep/Poor nutrition/Head trauma

Working memory tasks

Digit Span

Stimuli: 8... 5... 2
Response: "8... 5... 2"

Problem Solving



Reading Comprehension

Once upon a time there was a carpenter who had three sons. One of them had magic skills that could turn water into whatever he.....

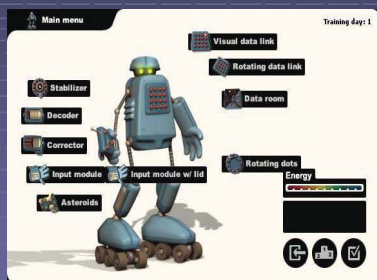
Span-board



Mathematics

73 - 7 + 2 + ???

CogMed



CogMed Does...

- Targets WM by highlighting the ability to hold and manipulate information for short periods of time (integrity of the prefrontal cortex)
- All tasks involve:
 - (1) maintenance of multiple stimuli at the same time,
 - (2) short delays during which the representation of stimuli should be held in WM,
 - (3) unique sequencing of stimuli order in each task
 - (4) changing difficulty level as a function of individual performance.

Adaptivity: Ss always trained at the peak of their performance ability.

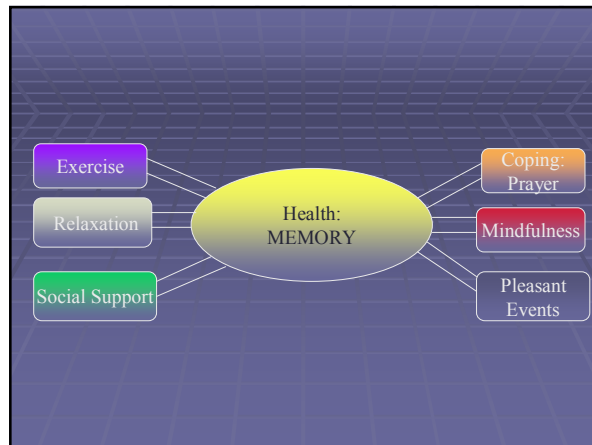
Results

Task	Cogmed	Sham	Total
Pre Trails A	54.5	56.9	55.7
Post Trails A	53.0	48.8	53.4
Pre Trails B	126	136	131
Post Trails B	108	124	115
Pre Digits F	9.7	9.4	9.5
Post Digits F	10.0	8.2	9.2
Pre Digits B	5.9	4.8	5.4
Post Digits B	7.5	5.7	6.7
Pre SB F	6.3	6.5	6.3
Post SB F	7.9	6.8	7.3
Pre SB B	4.9	4.0	4.7
Post SB B	6.8*	5.7	6.3

* Independent t =3.1, p<.02

CONCLUSION

- Cogmed group did improve on most outcome measures, even at post-post testing
- Cogmed intervention shows:
 1. Significant change in Span Board-Bk
 2. Sig correlations with Dig Span and Span Board-B
 3. Depression seems to matter
- Limitations: Small sample size
Ss qualify for an MCI diagnosis
Unfinished data



Soft Data

Question	Pre	Post
Need help to recall	5.1	2.5
Can't recall things now	3.1	2.1
Memory problems due to age	2.1	2.0
My Memory is better	4.2	4.0

Study for 60"

- Ink
- Kettle
- Spray
- Musician
- Volcano
- Monarch
- Steamer
- Dirt
- Lawn
- Gallery

End: Need to Address Cognition, Depression and Anxiety



Treatment of Older Adults:
Depression, Anxiety, & Cognitive Problems
Pt. 2

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Evaluation

To complete the evaluation, click on the survey link below or paste the link into your web browser.

www.surveymonkey.com/s/geriatric2

This evaluation must be completed in order to receive contact hours/certificate.