Scams and the Aging Brain

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Who Are We?

How Are We Handling Questions Today?
What in the World is a Neuropsychologist?

Neuropsychology

• The study of how behavior and thinking skills are related to the brain’s structures and systems
What in the World is a Neuropsychologist?

Neuropsychologists:

• Assess a person’s thinking skills

• Assist physicians with diagnosis of brain conditions

• Help with care and treatment planning
What in the World is a Neuropsychologist?
What in the World is a Neuropsychologist?
Scams

tricks

rackets

SWINDLES

ruses

Confidence games
Why Do Scams Work?
Techniques of Persuasion

- Visceral rewards
- Emphasize urgency
- Use a personal touch
- Demonstrate authority
Techniques of Persuasion

- Visceral rewards
- Emphasize urgency
- Use a personal touch
- Demonstrate authority
Why Do Scams Work?
The Aging Brain
Normal Aging

Young Brain

Aging Brain
Thinking Changes in Normal Aging

- Decreased speed and efficiency of processing
- Decreased complex attention
- Problem solving more difficult for unfamiliar tasks
- Language, reasoning, memory storage, and basic attention all remain intact
- We develop wisdom
Memory Changes as We Age

- Short term memory changes little, but worse if it needs complex processing
- Storage and recall becomes somewhat inefficient
- Visual memory decreases more than verbal
- Memory complaints are unreliable
Thinking Changes in Normal Aging

- Decreased speed and efficiency of processing
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- Problem solving more difficult for unfamiliar tasks
- Language, reasoning, memory storage, and basic attention all remain intact
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Frontal Lobe Hypothesis of Aging

Why is the Frontal Lobe So Important?

- “Experience generator”
- Judgment
- Cause and effect
- Complex attention
- Organizational skills
- Inhibition
Frontal Lobe Hypothesis of Aging

Iowa Gambling Test
IGT and the PFC

- PFC damage results in difficulty learning from one’s mistakes and decreased self-awareness

- Similar performance is seen in those with disinhibition conditions
IGT and Seniors

- Those over 55 generally do worse than those under 55
- Similar performance to those with disinhibition
- These are normal older adults who do not have dementia

Denburg NL, Tranel D, Bechara A. The ability to decide advantageously declines prematurely in some normal older persons. Neuropsychologia 2005;43(7):1099–1106.


# Scams and Normal Aging

<table>
<thead>
<tr>
<th>Decreased Processing Speed</th>
<th>Decreased Memory Efficiency</th>
<th>Frontal Lobe Issues</th>
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</thead>
<tbody>
<tr>
<td>• More vulnerable to false urgency</td>
<td>• May have trouble remembering if they have paid already</td>
<td>• May not think through possibilities</td>
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<tr>
<td>• May not “figure it out” until it’s too late</td>
<td>• May be unsure who they can reach out to for support</td>
<td>• More likely to use emotional reasoning rather than logic</td>
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<td>• Easily overwhelmed</td>
<td></td>
<td>• Less efficient at decision making</td>
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Emotional Risk Factors

- Phase of life
  - Generativity vs stagnation (40-65)
  - Ego integrity vs despair
- Loss of spouse/loved ones
- Loneliness
- Depression, anxiety, and fear
- Economic uncertainty, burden on others
Age Associated Financial Vulnerability

- Coined by Mark Lachs, MD, an epidemiologist

- a pattern of financial behavior in older adults that:
  - Puts them at substantial risk for a considerable loss of resources
  - Can result in dramatic changes in quality of life
  - Is inconsistent with patterns of financial decision making in younger life
  - Can occur in absence of dementia or neurodegenerative problems
Need for AAFV

- Association of a Negative Wealth Shock With All-Cause Mortality in Middle-aged and Older Adults in the United States.
  - Pool LR¹, Burgard SA²,³,⁴, Needham BL³, Elliott MR⁴,⁵, Langa KM⁴,⁶,⁷,⁸, Mendes de Leon CF³.

- Financial Incompetency: legal test generally requires a disabling condition causing cognitive impairment that results in impaired functional skills
When Things Go Wrong

- Dementia
- Mild Cognitive Impairment
- Alzheimer’s Disease
Dementia
(Major Neurocognitive Disorder)

• A clinical syndrome

• multiple cognitive deficits, usually including memory impairment

• functional decline
Mild Cognitive Impairment

• The loss of a single mental function that is more severe than seen with normal aging

• Usually Memory

• Functional abilities generally not impaired
Loss of Brain Tissue in Alzheimer’s Disease

Normal Aging

Mild Cognitive Impairment

Alzheimer’s Disease
<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Normal Aging</th>
<th>Mild Cog. Impairment</th>
<th>Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor Memory</td>
<td>At times</td>
<td>More frequent</td>
<td>Most of the time</td>
</tr>
<tr>
<td>Poor Testing</td>
<td>None</td>
<td>Mild to moderate</td>
<td>Moderate to severe</td>
</tr>
<tr>
<td>Other Problems (Judgment)</td>
<td>Rare</td>
<td>Mild, slightly affects daily life</td>
<td>Affects daily life notably</td>
</tr>
<tr>
<td>Trouble w/ Household Tasks</td>
<td>None</td>
<td>Occasional w/ complex activities</td>
<td>Moderate to severe problems</td>
</tr>
</tbody>
</table>
Alzheimer’s Disease

- Progressive cortical degeneration starting in the temporal lobes
- Loss of short-term memory
  - New learning vs retrieval
  - Eventually remote memory impairment
- Language difficulties
- Progression ~8 years
  - Regression toward dependency
Frontotemporal Dementia

- Progressive degeneration of the cortex beginning in the frontal lobes
- Significant personality change
- Disinhibition and impulsivity
- Poor judgment
- Diet changes
Dementia with Lewy Bodies

- “Parkinson’s Plus Condition”
- Movement difficulties
- Thinking skills deficits
- Delusions/hallucinations
- Day-to-day fluctuation
Parkinson’s Disease
IGT in Alzheimer’s and MCI

- Looks different than that seen in healthy seniors
- More random responses and poor strategy stability

Conclusions

- Aging disproportionately affects the frontal lobe, which is involved in executive functions such as decision making and judgment.

- Results in decreased ability to process information in a rapid manner.

- Results in generally increased susceptibility to scams involving urgency and visceral/emotional information.
How Do We Help?
Identify Warning Signs

- Obvious confusion or severe memory loss
- Confusion during complex tasks or difficulty following a sequence
- Difficulty keeping up with pace of normal conversation
- Language difficulties
- Defensive/secretive regarding personal affairs
- Disorganization
- Isolation
- Drug or alcohol abuse
Financial Warning Signs

- Changes in financial behavior
- Disorganization
- Decreased checkbook management skills
- Arithmetic mistakes
- Financial concepts confusion
Screening For Vulnerability

- Mental status
  - MOCA vs MMSE
- Financial questions
  - Who manages your money?
  - What is your monthly income?
  - What are your expenses?
- Have you won money or prizes?
- Have you ever paid for services by purchasing money cards?
- Do you talk to friends online?
  - May not know online vs phone
  - Have you met any new people?
Pocket Guide on Elder Investment Fraud and Financial Exploitation

Should I be concerned?

**Red Flags in patient/client history:**
- Social Isolation
- Bereavement
- Dependence on another to provide care
- Financially responsible for adult child or spouse
- Alcohol or drug abuse
- Depression or mental illness

**Red Flags from clinical observations:**
- Cognitive problems
- Fearful, emotionally labile, or distressed
- Suspicious, delusional
- Change in appearance, poor hygiene
- Accompanied by caregiver who is overly protective; dominates patient/client
- Change in ability to perform activities of daily living, including self-care, daily finances, medication management

BCM  
Baylor College of Medicine

TCGEC
What Can We Do?

- May or may not be “impaired” overall
- Educate on common themes and specific examples of scams
  - Frame in a way that does not make them the “dumb one”
  - May be incapable of insight depending on the issue
- If unable to recognize problems, may need someone to step in and take over to some degree
- Start with least restrictive approach to respect autonomy
  - Auto bill pay, supervision, limiting access, helping to block numbers
- Collaborative and empathetic approach
- REMEMBER, we want to help while respecting their autonomy!
Chances are good that someone you know has been scammed. They may not talk about it, but the statistics do.

The truth is that sharing what you know can help protect someone who you know from a scam.

Yes. You. People listen to you because they trust you. You’re a friend, a neighbor, a relative.

And that’s why we created these articles, presentations, video and activities — to help you start that conversation, and pass on some information that could help someone you know.
If you feel that an elder is being financially abused, you may break confidentiality to report to Adult Protective Services.

Educate and encourage client to utilize resources for reporting:
- Reporting fraudulent charges to their bank
- Police reports
- IC3.gov Internet Crime Complaint Center

Offer to collaboratively report
- Ask permission to discuss options with family members
Approaches to Prevention

- "Family awareness" programs about financial vulnerability of older loved ones?
- Consider it similar to addictive/disinhibited conditions such as drug abuse, suggesting similar Tx programs?
- Involvement of local banks, brokers, and other financial professionals
- The best source of protection for a financially vulnerable elder is usually an aware and caring family
Any Questions?

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