

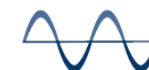
# The PD You Cannot See

## Nonmotor Challenges

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ADVANCED  
NEUROBEHAVIORAL  
HEALTH  
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# Objectives

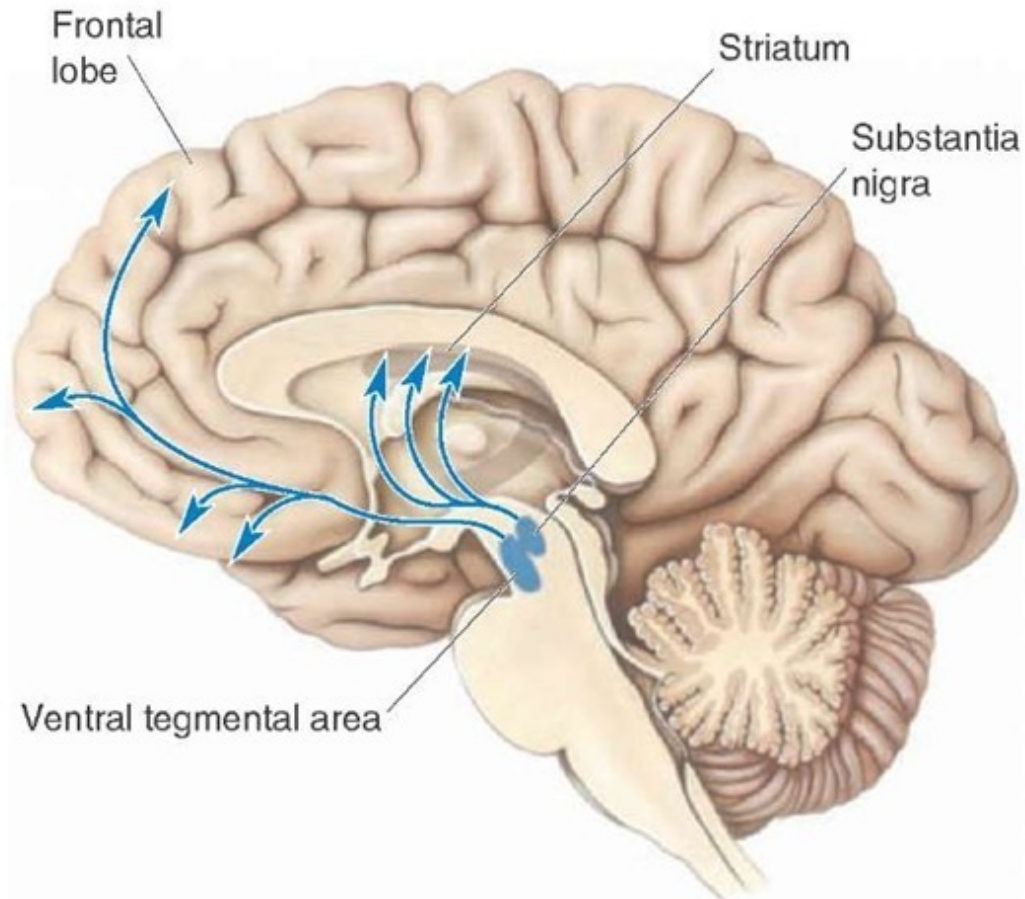
- To understand why cognitive and behavioral changes occur in a “motor” disease
- To identify common cognitive and behavioral changes in PD
- To learn techniques for managing difficult behaviors



# INTRODUCTION TO PD NEUROPATHOLOGY

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# Neuroanatomy 101



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# COMMON NONMOTOR PROBLEMS RELATED TO PD



# Nonmotor changes caused by PD

- Cognitive problems
- Change in personality
- Sleep disturbance
- Autonomic system dysfunction
  - Constipation
  - Nighttime bladder control
  - Orthostatic hypotension
- Loss of the sense of smell

# The likelihood of cognitive changes in PD



- ~95% will experience some change in thinking (Pirozzolo1982 et al., Bassett 2005)
- ~25 – 30% of people with PD will develop dementia (Aarsland et al., 2005)
  - Is this Dementia with Lewy bodies?



# What exactly is dementia?

- Deficits in thinking that are severe enough to interfere with the ability to carry out day-to-day tasks.
- There are many different causes of dementia.
- Parkinson's disease is one.



# Speaking of which...What is Dementia with Lewy Bodies?



- Possibly



# What type of impairments?

- Impaired reasoning and handling of new tasks, poor judgment
- Impaired visuospatial abilities
- Impaired ability to acquire and retain new information
- Impaired language functions



# Attention and Working memory

- Waxing and waning alertness
- Problems with sustained concentration
- Inability to hold information online to do something with it
- Zoning out/losing your train of thought



# Executive dysfunction

- Difficulty with problem solving
- Planning
- Organizing
- Decision making
- Retrieval of information (including words)
- Cognitive flexibility
- Initiation and motivation



# Visuospatial dysfunction

- Visual hallucinations
- Visual misidentifications
- Not recognizing the face of loved ones
- Bumping into furniture, tripping down stairs, failing to navigate distances
- Inability to follow a map
- Can cause problems with driving or parking

# Speech and Language Problems



- Reduced verbal fluency
- Problems finding the right word
- Quiet, whispering voice
- Slurred, garbled speech

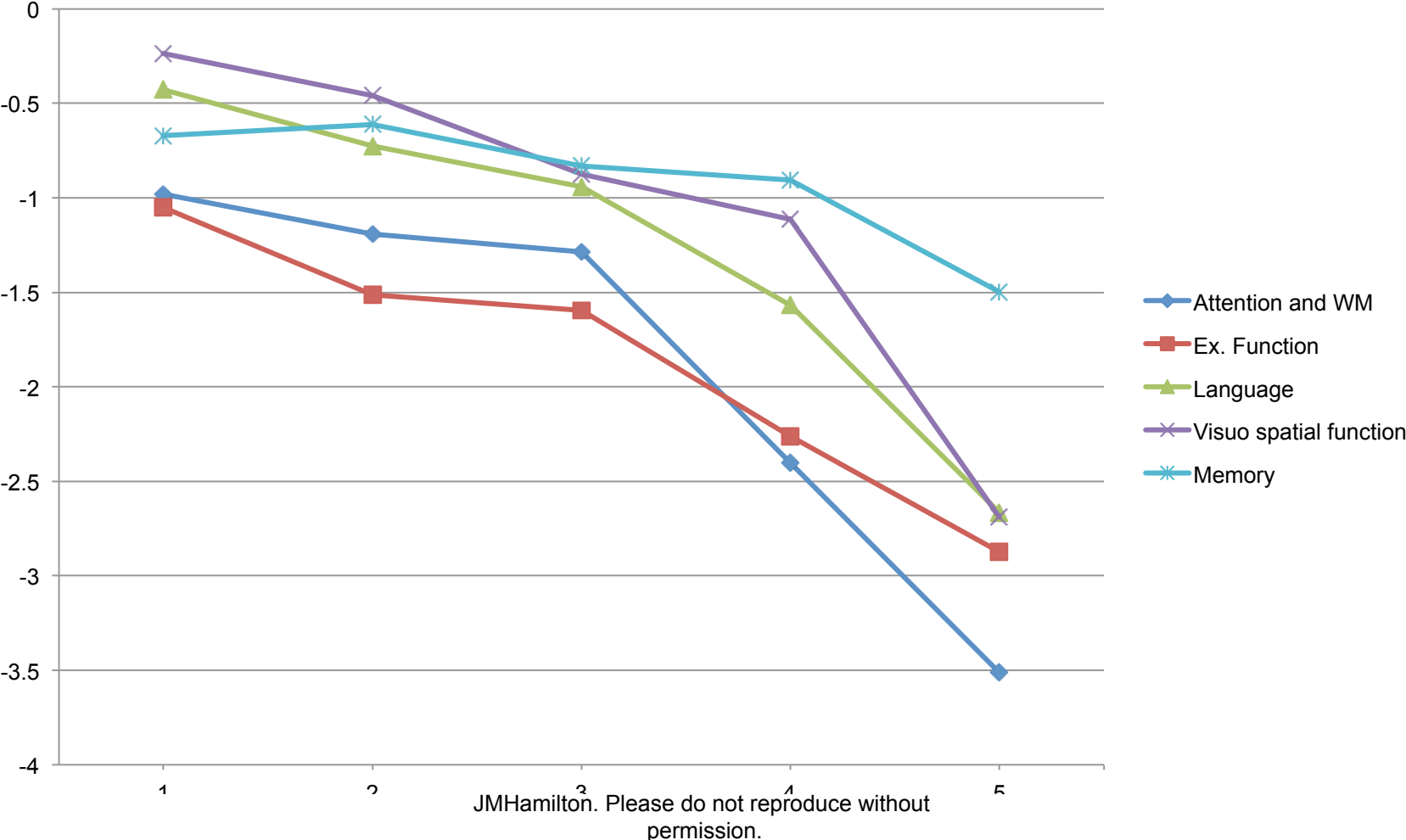


# Memory

- Memory loss is noticeable but is often improved with recognition and cueing
- Memory is obviously impaired in Parkinson's Disease Dementia and Dementia with Lewy Bodies

# The most common cognitive changes in PD

(Mitolo et al., in preparation)







# Personality Change

- Irritability/short-temperedness
- Frustration
- Sadness/depression
- Anxiety/agitation
- Denial
- Suspicion/paranoia
- Aggression
- Passivity/Apathy



# Behavioral Consequences

- Psychotic behavior
  - Visual hallucinations
  - Delusions
- Obsessive compulsive problems
  - Gambling, hoarding, checking
- Sleep disorders
  - RBD, insomnia, hypersomnolence
- Falls



# NOW WHAT?



- Recognize that you are not “crazy” or “lazy”
- Speak to your movement disorder specialist
- Look out for medication side-effects
- Have the issues evaluated so that a targeted treatment plan can be developed
- Discuss the problems with others who you trust

# Managing attention/alertness problems



- Identify the “best times” of the day and schedule important activities then
- Can be particularly noticeable during times of stress
- Talk to your movement disorder specialist about medication effects
- Short naps are OK but long ones can interfere with nighttime sleep



# Managing executive dysfunction

- Limit options
- Limit distraction
- Use calendars, cues, and reminders
- Maintain a consistent schedule
- Simplify tasks into single steps
- Use short, simple sentences
- Ask one question at a time

# Managing communication problems



- Early speech therapy intervention
  - New communication techniques/assistive devices
- Be patient, show interest, offer comfort
- Clarify if confused
- Avoid pressuring, pushing, and rushing



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# Depression/Grief

- A common reaction especially in earlier stages when insight is best
- Antidepressants may be helpful
- Support groups are helpful for some but should be tailored to those with early signs. Too much exposure can make it worse.
- **Goal: Active support, communication, and planning can be helpful. Professional intervention may be necessary.**



**EXERCISE!!**

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# Denial/Lack of Insight

- It is impossible to remember what you forget
- Insistence by family members that something is wrong is met by disbelief or suspicion because the individual is unable to recognize problems
- **Goal: Ensure safety without alienating or disrespecting loved one**



# Paranoia/Suspicion

- Once again, it's impossible to remember what you forget
- If given the option between blaming myself for losing my purse and blaming you, I'll default to you
- The culprit is often due to a combination of cognitive decline and lack of insight
- **Goal: Reassurance without rationalization, argument, or attempt to convince**



# Hallucinations/Delusions

- Common in Parkinson's disease and its Lewy body brethren
- Talk to movement disorder specialist.
- 1<sup>st</sup> attempt to reassure and change environment (more light, remove mirrors)
- Be cautious with medication
- **Goal: Acknowledge the experience without feeding into fear or distrust**



# Aggression/anger/frustration

- Very, very common reaction to loss of independence.
- You must protect your safety and the safety of vulnerable others
- **Goal:**
  - Try to indentify the source of the problem
  - Brainstorm different solutions
  - Alter responses until you find one that works



# Managing Sleep Disturbance

- Physical changes to the room
- Routine sleep patterns
- Exercise
- Avoid alcohol, caffeine, some meds
- Medication management
  - Clonazepam
  - Melatonin



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# Summary

- This disease causes difficult problems
- The changes are directly related to the brain areas involved
- Behavioral techniques can improve the situation ([www.alz.org/alzheimers\\_disease\\_publications.asp](http://www.alz.org/alzheimers_disease_publications.asp))
- Sometimes medications are necessary but must be used with caution



# Fear/Anxiety

- Inability to remember recent events breeds fear and insecurity
- Individual may become inseparable from primary caregiver (tirades when separated, incessant phone calls, accusations)
- Both play a role in distrust
- **Goal: Reassurance along with proactive steps towards increasing boundaries, supervision, and support**