



Integrated Care in Parkinson Disease: Collaboration Between Neurology and Psychiatry in Parkinson's Disease

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Disclosures

- No relevant financial relationships with commercial interests
- The following talk may include unlabeled/unapproved use of medications
- Dr. Pontone and Torres-Yaghi have consulted for Acadia Pharmaceuticals Inc



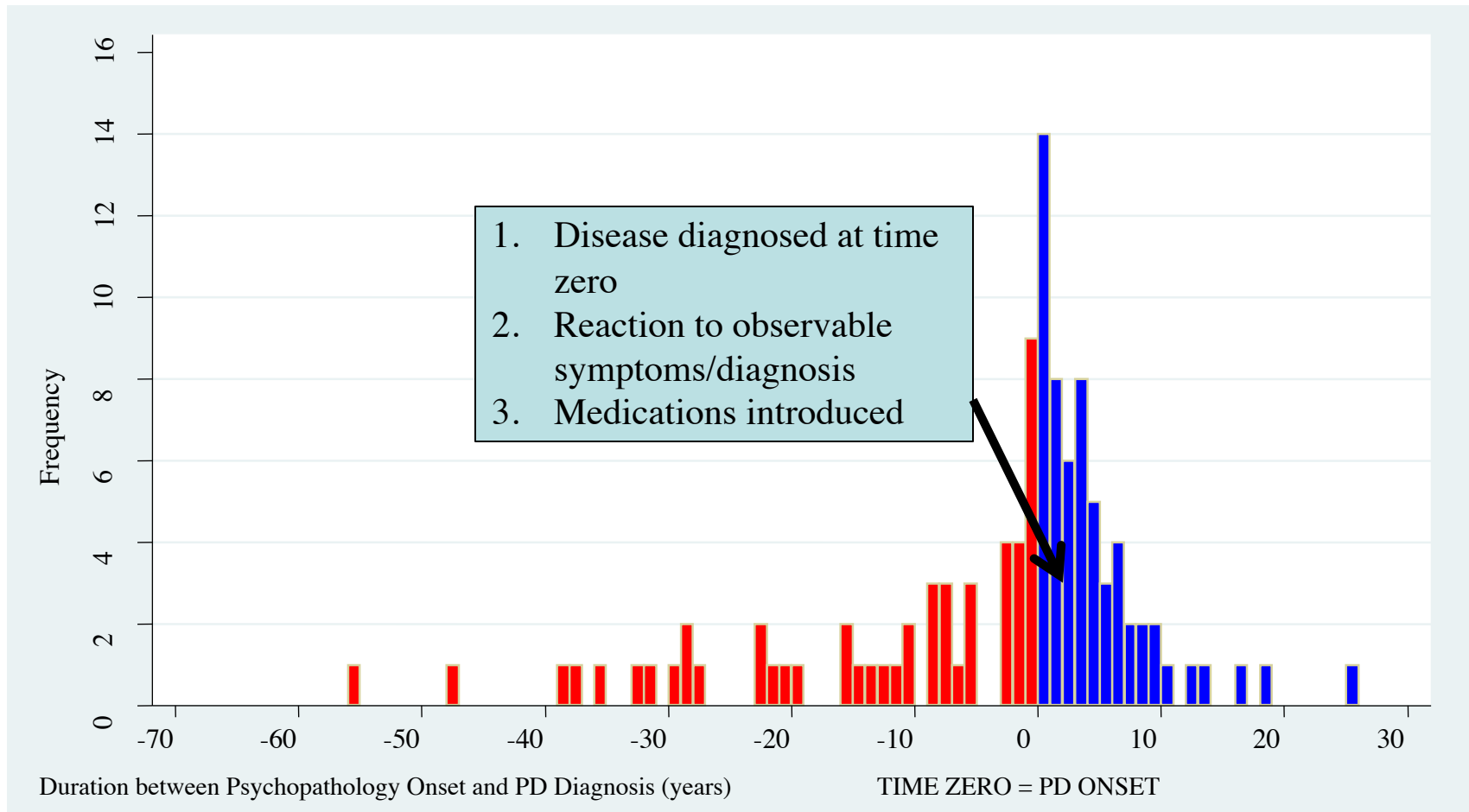
I. Parkinson's: The Intersection of Mental and Physical Health

II. Anxiety in PD

III. Depression and apathy in PD

IV. Psychosis in PD

Intersection of mental and physical health in PD



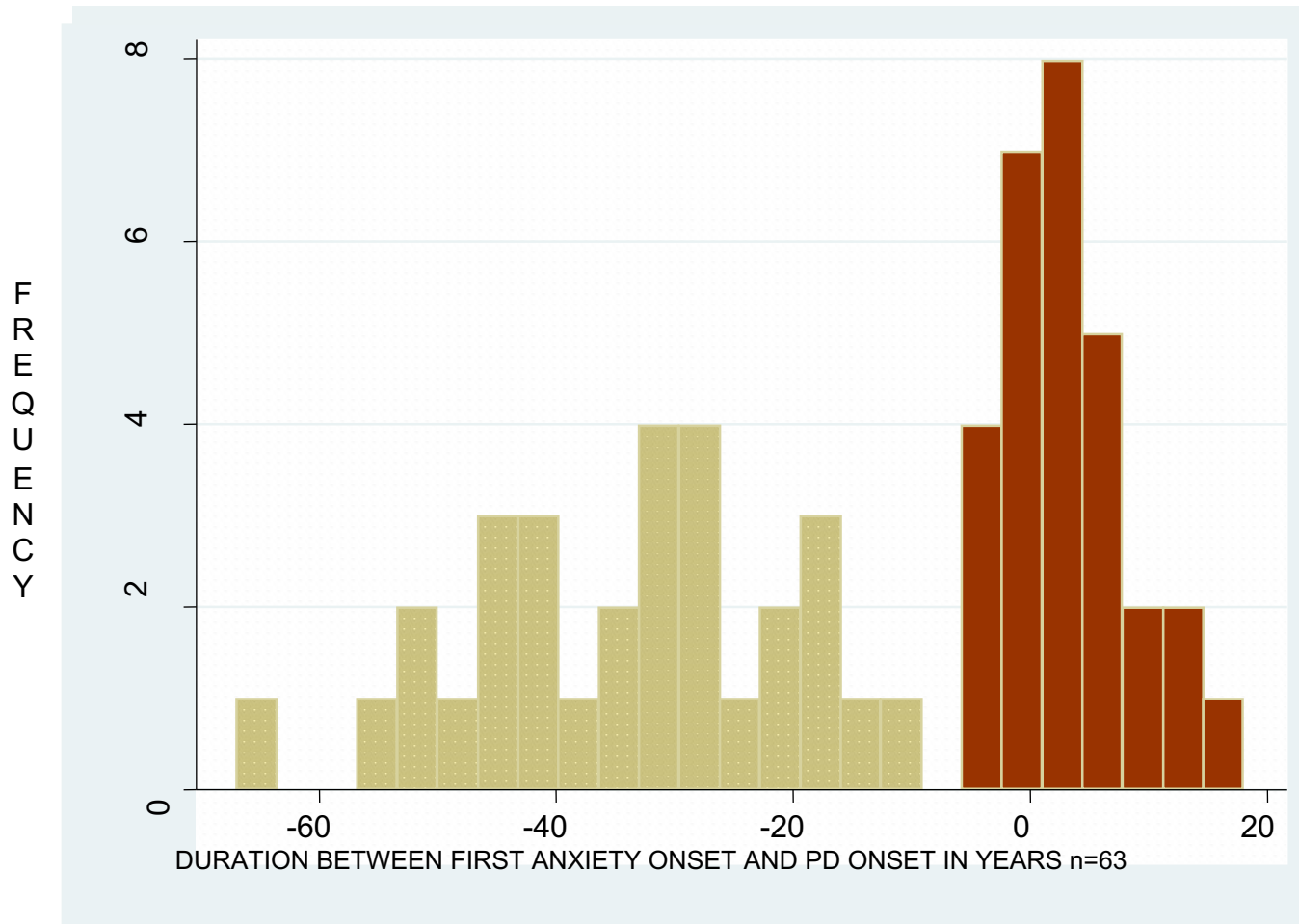
Anxiety in Parkinson's disease



Prevalence of anxiety and anxiety disorders in PD

- 31% have an anxiety disorder (e.g. DSM)
 - ~30% had more than one anxiety disorder

First Anxiety Disorder Onset Relative to Parkinson's Onset

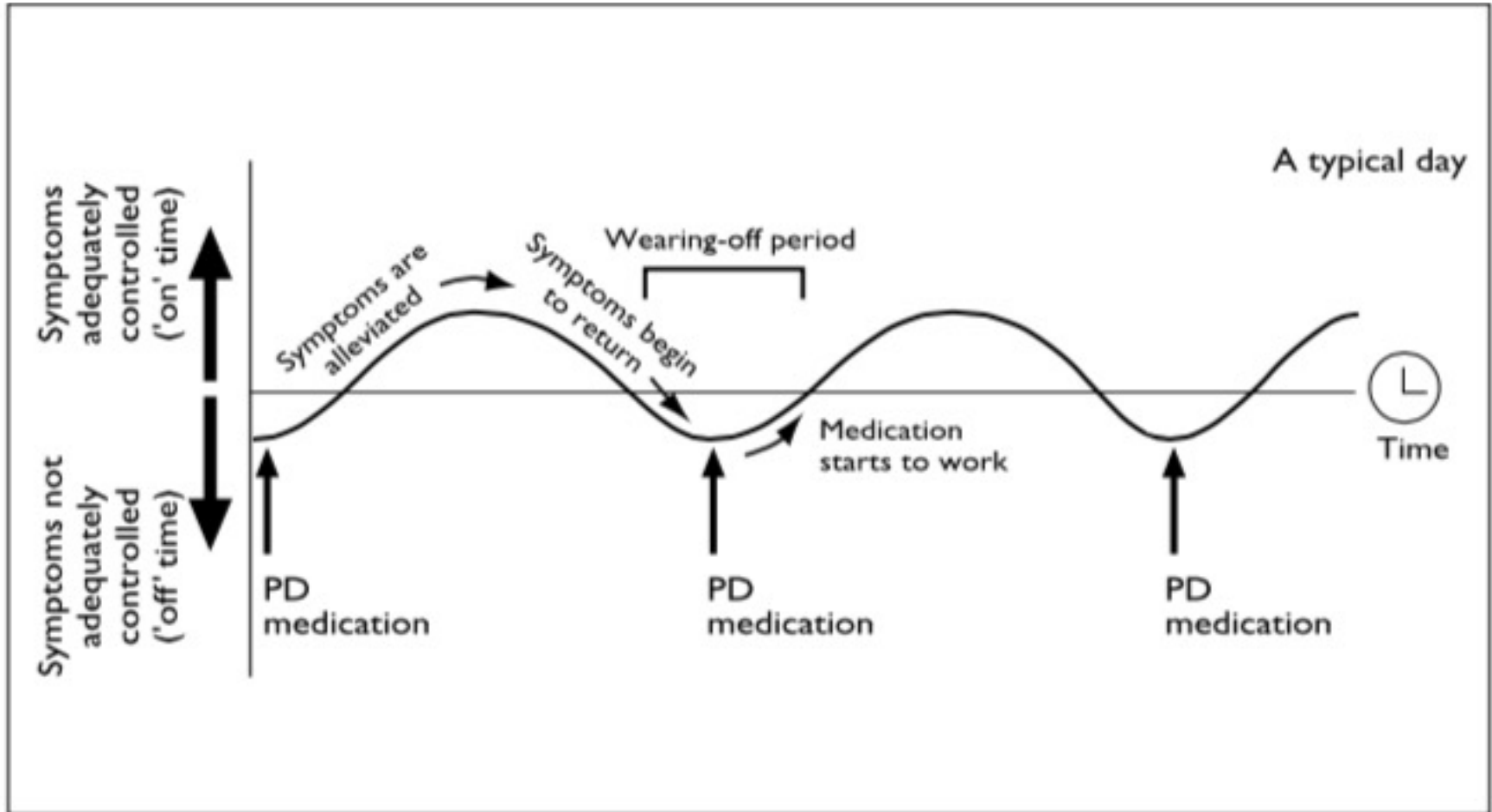


Bimodal distribution of anxiety disorder onset compared to PD onset

Dopaminergic on-off motor fluctuations

- Improvement in motor symptoms after L-dopa administration = “on”
- Return of parkinsonian movement symptoms at the end of the dosing effect = “off”

Dopaminergic medication on-off fluctuations in PD



Mood and motor fluctuation with levodopa infusion

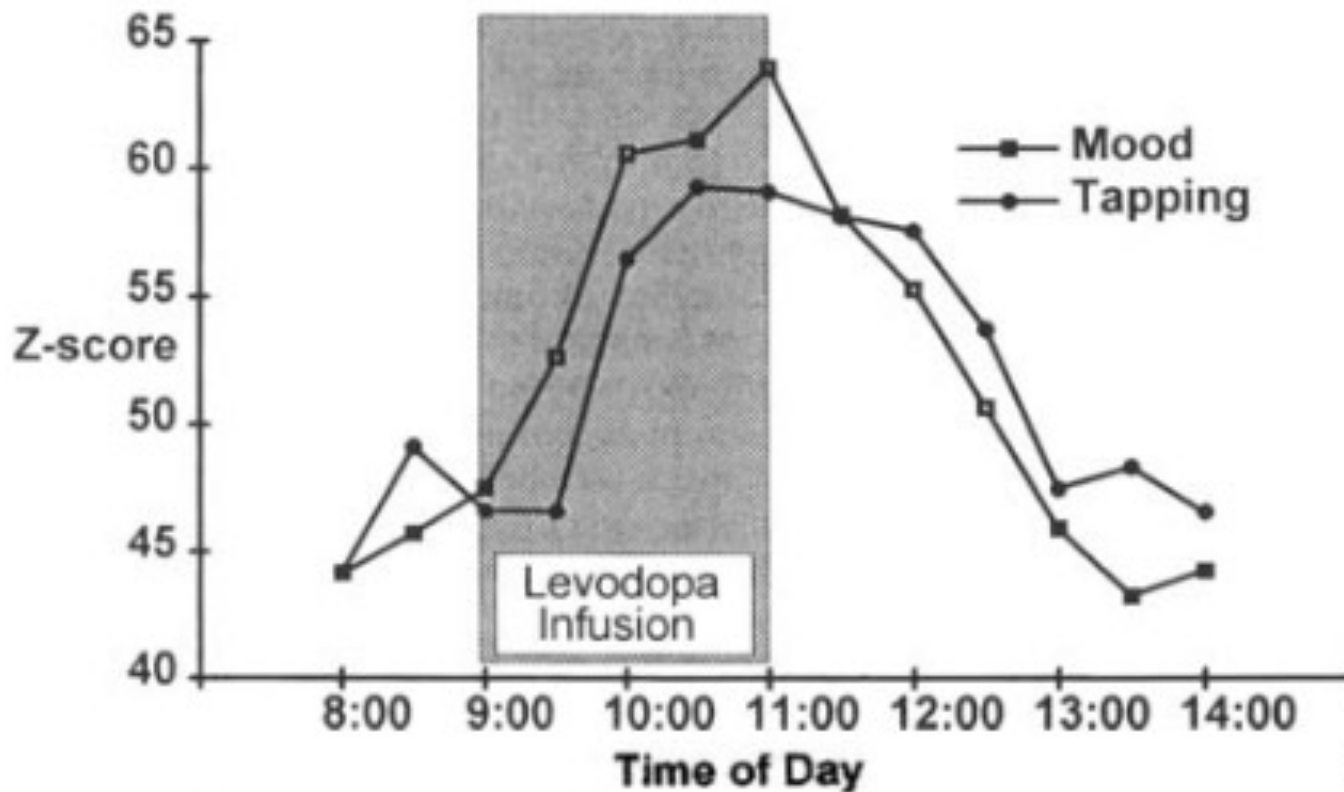
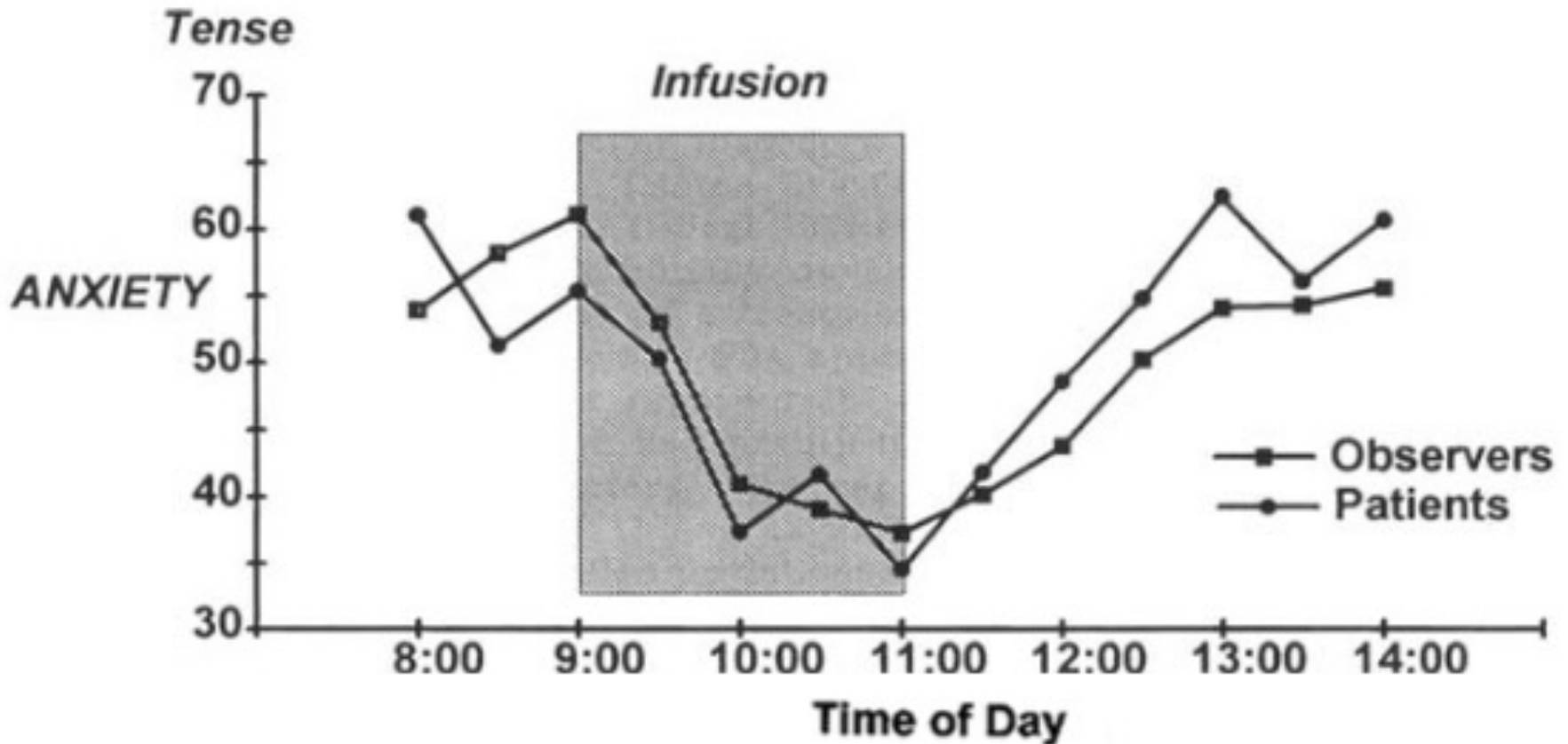


FIG. 3. Relationship of mood change and motor change.

Anxiety fluctuation with levodopa infusion



Integrated care for anxiety in Parkinson's

- Optimizing motor function and addressing motor fluctuations is likely important
- Keep a journal of timing of anxiety relative to dosing PD medications
- CBT has shown efficacy
- Mindfulness and relaxation therapy

Depression in Parkinson's disease



National Parkinson Foundation



- **Parkinson's Outcomes Project**, a longitudinal look at which treatments produce the best health outcomes in PD n=12,000+
- **The impact of depression on quality of life is almost twice that of the motor impairments**

Prevalence of Depression in Parkinson's disease

- 25% for major depression up to 50% for 'minor' depression/dysthymia
- Anxiety disorders often co-occur

The longitudinal impact of depression on disability in Parkinson disease

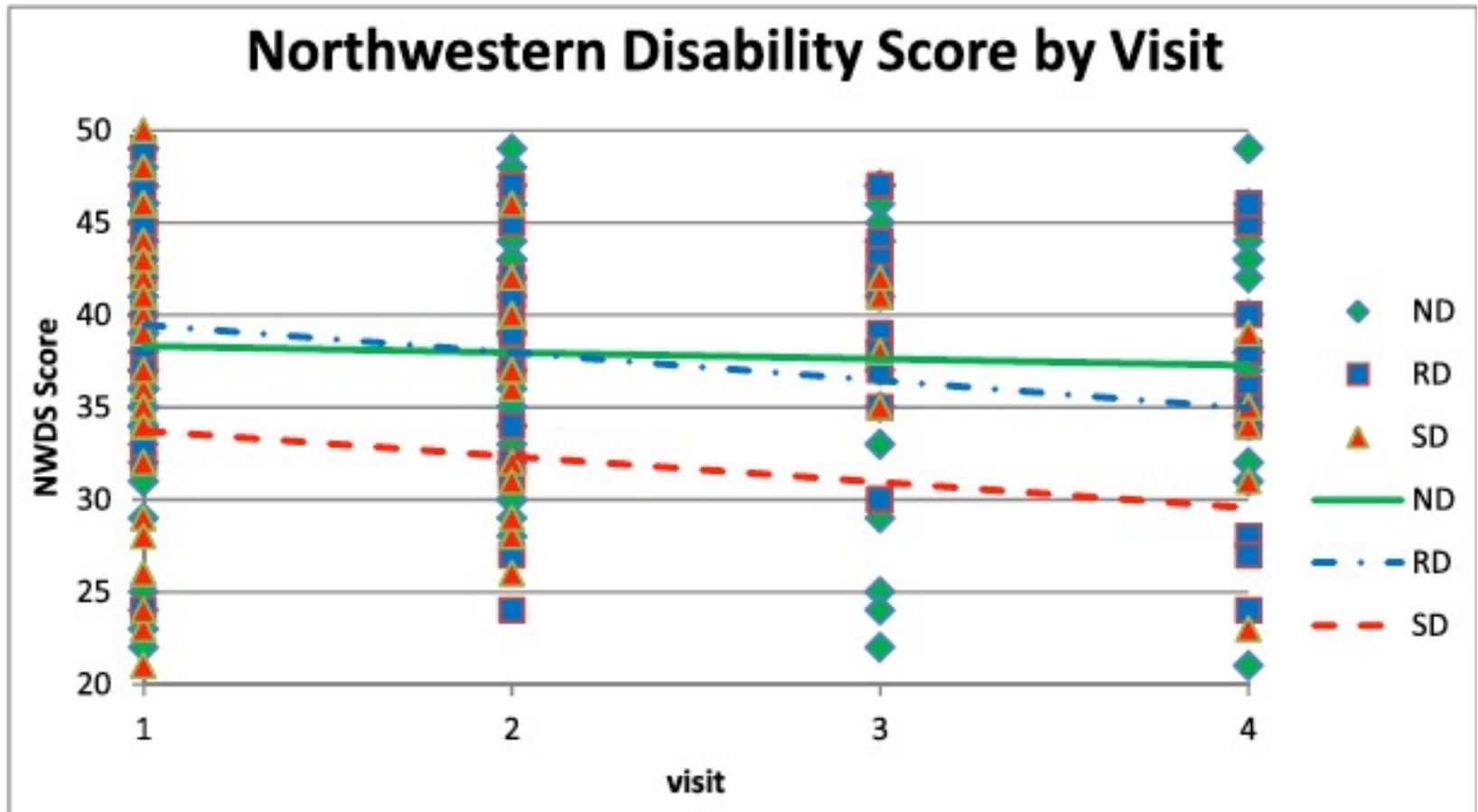
Gregory M. Pontone^{1,2}, Catherine C. Bakker^{1,2}, Shaojie Chen³, Zoltan Mari^{2,4}, Laura Marsh^{1,2†,‡}, Peter V. Rabins^{2,1}, James R. Williams^{1§} and Susan S Bassett^{1,2}

Objective: This study examined the association between physical disability and DSM-IV-TR depression status across six years

Methods: 137 adults with idiopathic PD. A generalized linear mixed model with Northwestern Disability Scale score as dependent variable to determine the effect of baseline depression status on disability

Results: 43 depressed at baseline vs 94 without depression. Symptomatic depression predicted greater disability compared to both never depressed ($p=0.0133$) and remitted depression ($p=0.0009$) after controlling for sex, education, dopamine agonist use, and motor fluctuations.

Longitudinal impact of depression on disability in PD (Pontone et al 2016)



ND=never depressed, RD=remitted depression, SD=symptomatically depressed

Integrated care for depression in Parkinson's



- Optimize motor medications
- Referral to mental health resources
- Consider talk therapy, CBT is effective
- Antidepressants

APATHY IN PARKINSON'S DISEASE



Apathy vs depression in PD

Apathetic symptoms
Reduced initiative
Decreased participation in external activities
unless engaged by another person
Loss of interest in social events or everyday activities
Decreased interest in starting new activities
Decreased interest in the world around him or her
Emotional indifference
Diminished emotional reactivity
Less affection than usual
Lack of concern for others'
feelings or interests

Overlapping symptoms
Psychomotor retardation
Anhedonia
Anergia
Less physical activity than usual
Decreased enthusiasm about
usual interests

Emotional symptoms of depression
Sadness
Feelings of guilt
Negative thoughts and feelings
Helplessness
Hopelessness
Pessimism
Self-criticism
Anxiety
Suicidal ideation

Integrated care for apathy in Parkinson's

- **Acetylcholinesterase inhibitors**
 - rivastigmine, efficacious, possibly useful
- **Dopamine agonists**
 - piribedil, likely efficacious, possibly useful following STN DBS
 - rotigotine, unlikely efficacious, investigational

Psychosis in Parkinson's disease



Psychosis – phenomenology definitions



- **Hallucinations** – false sensory perceptions in the absence of external stimuli
- **Illusions** – misperception of actual stimuli
- **Passage hallucinations** – indefinite object passing through the peripheral visual field
- **Sense of presence hallucination** – a ‘feeling’ (or idea) of someone close by (leibhatige Bewussheit from Jaspers)
- **Delusions** – false, fixed, idiosyncratic belief

Integrated management strategies for psychosis in Parkinson's



- Screen for underlying medical illness
- Discontinuation of medications that may exacerbate psychosis (eg, pain, bladder, and CNS-acting medications)
- Reduction of PD medications
- Use of antipsychotic therapy
- Treatment with cholinesterase inhibitors
- Nonpharmacologic techniques to address PDP

Questions?

