



Mind and Mood in Parkinson's Disease: Feeling and Living Better

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Disclosures

- Disclosures- None
- Off-Label Uses of Medications
- PD = Parkinson's Disease

Objectives

- Know PD behavioral symptoms and treatments
- Recognize the importance of Structure and Routine for Mood and Motivation
- Discuss that Exercise and Movement improves motor and non-motor PD symptoms

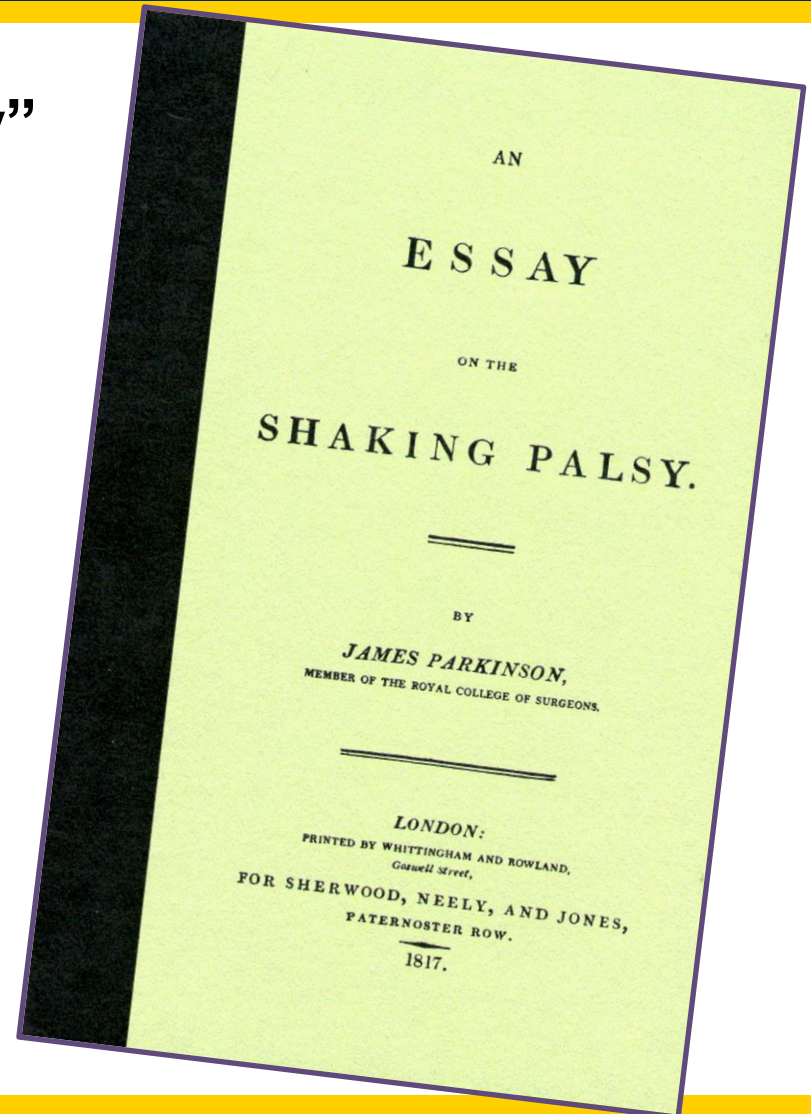
What is Psychiatry?



James Parkinson 1817

“An Essay on the Shaking Palsy”

- Affects multiple systems:
 - Motor function
 - **Mood**
 - **Perception**
 - **Cognition**



Neuropsychiatric Behavioral Symptoms in PD

- **Depression**
- **Anxiety**
- **Apathy**
- **Psychosis**
- **Impulsivity**
- **Sleep**
- **Dementia**

Medical Causes?

- **Medical Conditions**
 - **Delirium**- sudden change in days = medical
 - Bladder infection, pneumonia
 - New medications
 - Thyroid, electrolytes, low iron
 - Sensory impairments
- **Medication effects**
 - PD meds
 - Hallucinations
 - Compulsive behaviors

Approach to PD non-motor symptoms

Medication timing vs symptoms?

Mood/anxiety tied to motor off/on?

Sleep REM behaviors

Compulsive behaviors

Hallucinations/delusions

Memory and thinking changes

Overusing PD meds

Jack

- PD x 10 yrs
- Motor symptoms stable
- 1 month
 - Depressed
 - Anxious
 - Tearful
 - Withdrawn

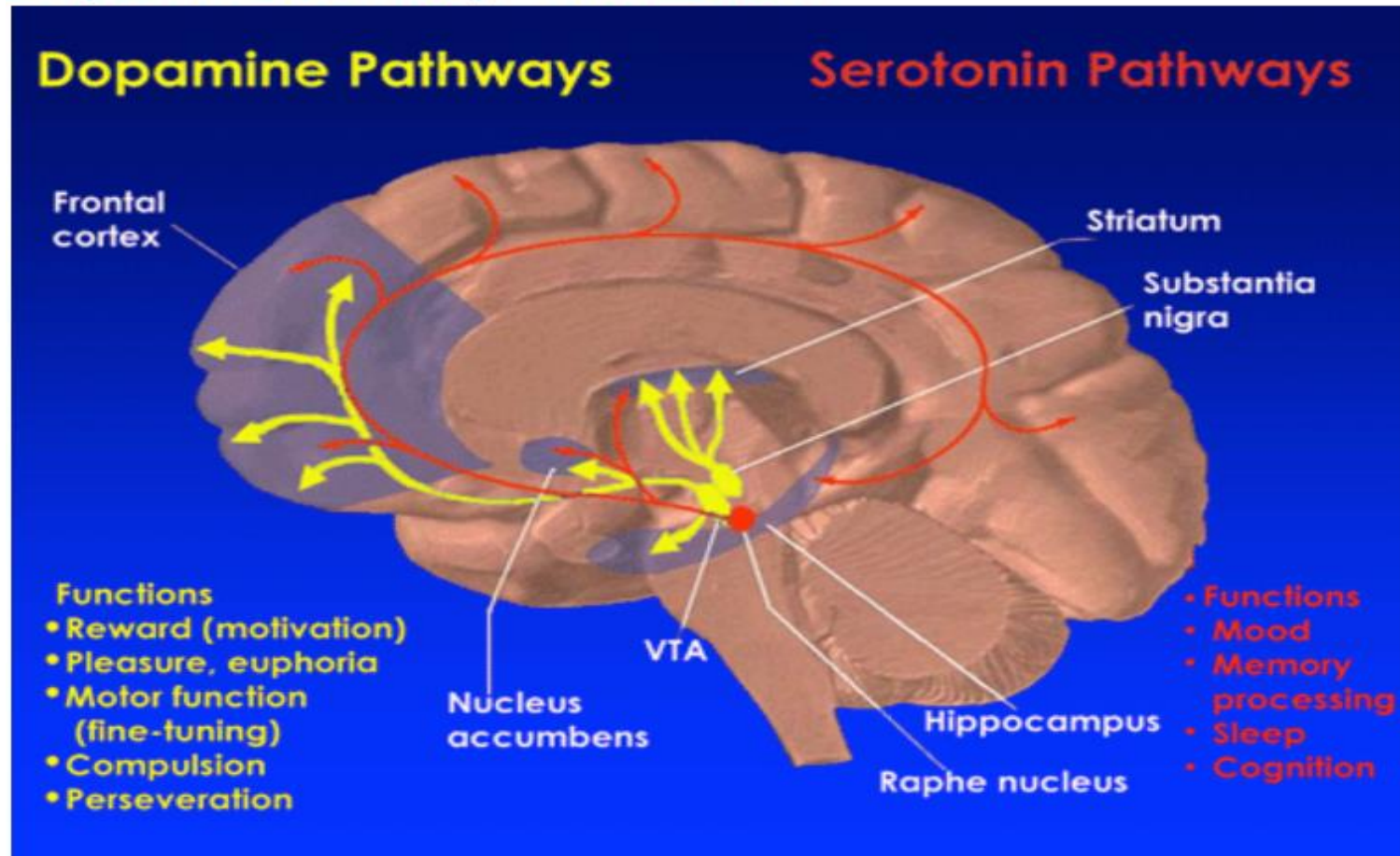


Anxiety and Depression In PD



PD: ↓ neurotransmitters, disrupted pathways

Dopamine Pathways in the Brain



The nigrostriatal pathway makes use of dopamine signaling from the substantia nigra to the striatum. Source: NIDA, 2013.

How Common is Depression and Anxiety in PD?

50%

of people with PD will experience some form of depression.

May occur 3-5 years before PD diagnosed

40%

of people with Parkinson's will experience an anxiety disorder.

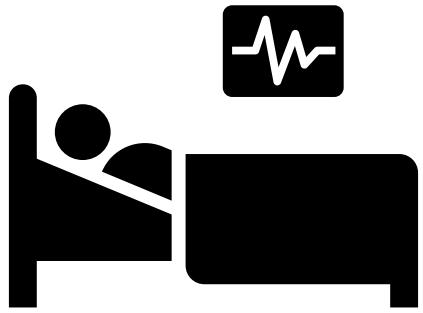
Parkinson's Foundation

Depression and Quality of Life in PD

- Depression ↓ quality of life more than
 - Motor symptoms
 - Severity of PD
 - Medication side effects – Global PD survey 2002
- Depression is not just reactive
 - Depression rates >PD vs other chronic disabling illness
 - Disability level not correlated with depression severity
Ehmann 1990, Menza 1994

What is Anxiety ?

- Apprehension, Fear, Dread, Worry
- Restless, wound-up, or on-edge
- Poor focus, fatigue, trouble sleeping
- Physical symptoms: racing heart, tightness in the chest, difficulty breathing, jitters, tingling, lightheadedness, nausea, stomach discomfort, sweating, headaches, etc.)
- Anxiety Disorder = interferes with life
 - Generalized, Panic, Social



Major Depression Symptoms

2 weeks + of

–Sad mood

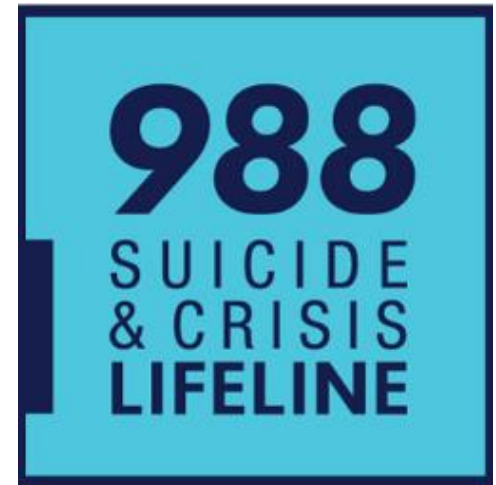
OR

–Loss of Interest or Pleasure
(Anhedonia)

Major Depression Diagnosis

And 5 + of the below

- Weight changes
- Sleep changes
- Activity changes- Restless OR slowed
- Feelings of worthlessness/guilt/
burden
- Trouble concentrating/ making
decisions
- Fatigue or loss of energy
- Recurrent thoughts of death or suicide



- YOU DON'T HAVE TO FEEL **SAD**
TO BE DEPRESSED!!!!!!
- 50% of depressed older adults deny
sadness

Symptom Overlap: Depression and PD

- Sleep disturbance
- Appetite disturbance
- Fatigue
- Psychomotor slowing
- Concentration impairment
- Libido decreased
- Flat affect
- Social withdrawal (dyskinesias, appearance)
- Memory changes (apathy, concentration)
- **Depression**
- **Lack of joy**
- **Hopeless Helpless Worthless**
- **Guilty Burden**
- **Life not worth living**

Early Cognitive Changes in PD

- Executive Functioning is impacted early
 - Organizing
 - Planning
 - Sequencing
- Having a regular routine to the day & week
 - Decreases Anxiety
 - Improves Motivation

Depression and Anxiety Treatment in PD

- Exercise Always Beneficial
- If Off periods only- Adjust PD meds
- If Unrelated to motor fluctuations
 - Mild- Non-medication treatments
 - Exercise
 - Cognitive-Behavioral Therapy



Moderate-Severe

- Medications- SSRI, SNRI, TCA
- Electroconvulsive therapy (ECT)



Start Low, Go Slow, Don't Stop!

- **Start Low**
 - 1/4-1/2 the usual starting dose



- **Go Slow**



- **Don't Stop** get to near-max doses

- **Be Patient**
 - up to 12 weeks

Max's Calendar

October - 2007							November - 2007							December - 2007						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7				1	2	3	4						1	2
8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
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Jack

- Started SSRI antidepressant- Escitalopram
- Stopped crying, reported improvement in his mood
- Wife was frustrated
“He still just sits around”



Apathy

- Lack of motivation and interest in goal-directed activities
 - (not loss of pleasure)
- Emerging as a common PD symptom
- Can exist without depression
 - Apathy alone does not have sadness, crying, anxiety, hopeless, helpless, worthless, guilt, burden, and thoughts of death or suicide



Apathy and Care Partners

- Apathy often leads to resentment
 - Seem intentional, lazy, entitled
 - Caregiving becomes unrewarding
- Apathy biology
 - Is emerging as a core feature of Parkinson's
 - Can be explained by brain changes in PD
- Remember: It's the PD

Apathy Treatment

- We all need a Julie!
- Behavioral interventions are best-
 - Which to do
 - (not “do you want to?”)
 - Let’s go!
 - Active Coaching
- Meds – Limited benefit
 - Methylphenidate (Ritalin), Modafinil



Jack

- Depression seemed improved
- More active with wife and friends scheduling
- Wife tore computer out of wall
 - Buying excessively
 - Porn



Impulse Control Disorders in PD (ICDs)

Impulsive and Compulsive Symptoms in PD

Impulse Control Disorders

- Impulse Control D/O

- Gambling
- Hypersexuality
- Buying
- Binge Eating

- Prevalence

- 14% of PD patients
 - ~5% each type

- More common with Dopamine agonists



QUIP Questionnaire Weintraub 2012

Compulsive Symptoms

- Compulsive symptoms

- Hobbyism
- Punding-
 - sorting/organizing



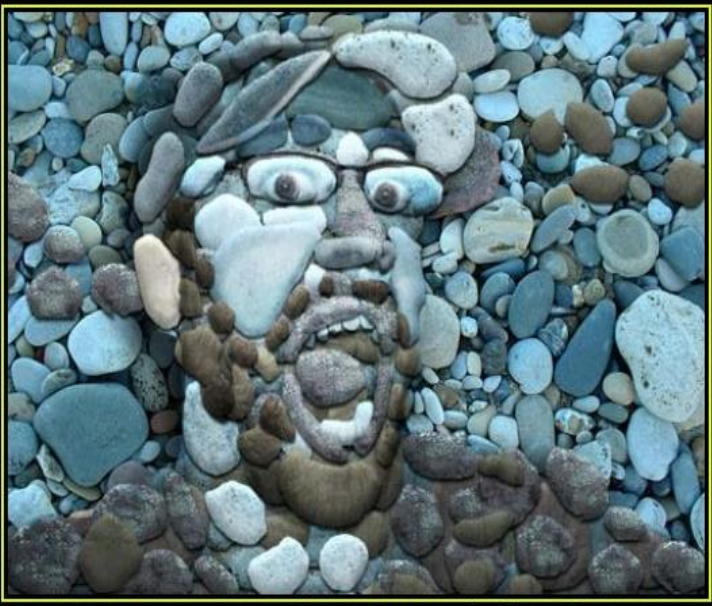
- Dopamine Dysregulation Syndrome (DDS)
 - Addiction-like self medication of Dopa

QUIP Questionnaire Weintraub
2012

Jack

- He sees construction equipment in yard
 - She sees their shrubs and landscaping
- He sees silent children playing in den
- Sometimes accuses wife of affairs
- Quizzes wife, thinks she's an imposter
- Thinks the house isn't the real one
 - It's an exact double





Reality Distortions (Psychosis) in PD

- Illusions
- Hallucinations
- Delusions
- Mis-identification syndromes
- With / without insight
- 20-30% of people may have these
 - Up to 50% if include presence and passage

Treating Psychosis

- Evaluate for medical cause
- Lower Dopamine replacing meds if possible
- Correct hearing / vision
- Improve lighting
- Remove visual triggers
- Flashlight, Clap on/Clap off light switch
- Don't Argue , Prove or Reason if agitates
 - Agree to disagree
- Announce before coming into a room
- Label emotion, reassure, distract

Medications for PD Psychosis

- Happy Hallucinations don't need medication
- Use if Distress, Suffering or Safety concerns
- Acetylcholinesterase inhibitors
 - Rivastigmine: PD with VH (Burn 2006)
 - Antipsychotic medications
- Antidepressants (?)

Antipsychotic Medications: Benefit-Risk

- Potential to worsen PD by dopamine reduction

clozapine = pimavanserin*

< quetiapine < ?brexpiprazole <=

aripiprazole = olanzapine = ziprasidone

<risperidone < haloperidol

- Metabolic effects
 - Weight gain, dyslipidemia, diabetes
- Black Box Warning



Exercise and Movement

- Positive outcomes in
 - Quality of Life
 - Mood
 - Thinking and Memory
 - Motor symptoms
 - Functioning
 - Sleep
 - PD progression (?)

Which exercise is the best ?

- Any Exercise and Movement is better than none
- No Clear “winner”- hard to study
 - Multi-type may be better than only aerobic
 - Moderate to high intensity recommended
 - Quantity may be important
 - PD specific may help motor symptoms more
 - All improve Depression
 - Low risk

Parkinson's Exercise Recommendations

Parkinson's is a progressive disease of the nervous system marked by tremor, stiffness, slow movement and balance problems.

Exercise and physical activity can improve many motor and non-motor Parkinson's symptoms:



**Aerobic
Activity**



**Strength
Training**



**Balance, Agility
& Multitasking**



Stretching

Summary

- PD is a neurobehavioral illness-explained by changes in neurotransmitter production and brain circuits
- Tell your Provider about non-motor symptoms
 - Treatments are available
- Learn more about PD Behavioral Symptoms
 - Local Support groups
 - Michael J. Fox Foundation
 - Parkinson's Foundation
- Movement and Exercise is key to living better with PD

Living Well with Parkinson's

- Have a Structure & Routine
- Planning, Active coaching
- Engage in Physical, Mental, Social activity
- Medications can be very helpful, and improve quality of life if other interventions not providing relief

Questions ?

