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## Introduction

### Background:

- Physical therapy (PT) is an evidence-based intervention that is underutilized by people with Parkinson's disease (PD) in the U.S.

### Objectives:

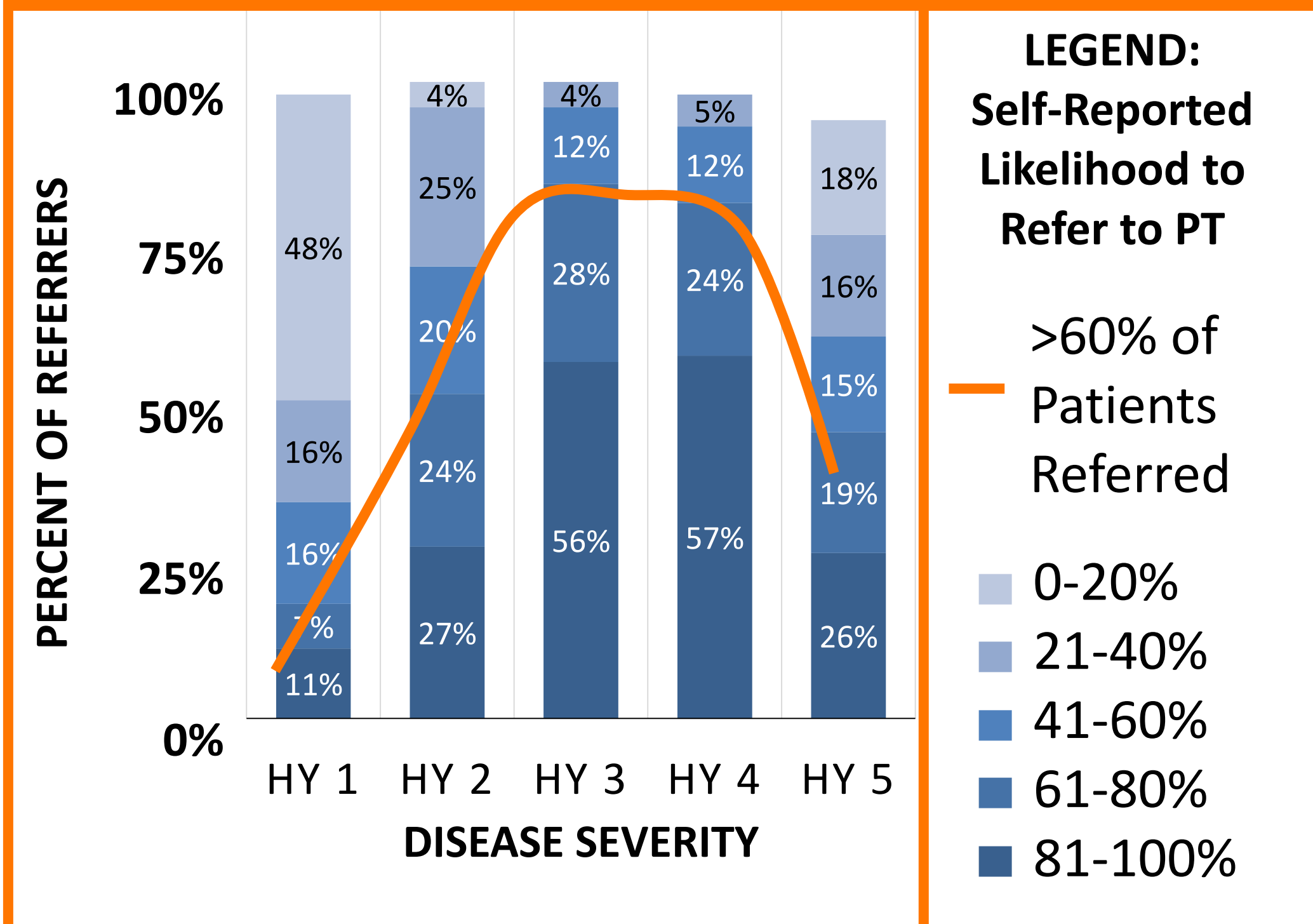
- Describe types and patterns of PT service delivery for people with PD
- Evaluate the extent to which delivery is similar or different from evidence-based PT practice guidelines.
- Identify barriers and facilitators to implementing evidence-based PT for people with PD.

## Mixed Methods

- Survey:** 32 expert PD centers in the U.S with 251 PTs and 268 referrers (doctors, nurse practitioners, physician assistants) invited.
  - 109 PTs (43%) and 77 referrers (29%) participated
  - Domains: MD, PT, and exercise prescription patterns across Hoehn and Yahr (HY) stages.
- Explanatory Interviews:** PTs, referrers, and people with PD from 6 PD centers selected for regional diversity and varied PT patterns.
  - Content analysis with inductive/deductive codes on key intervention components (people, intervention, processes, system), barriers, and facilitators of PT.

## Results

### Referrers Most Likely to Refer to PT in Hoehn & Yahr Stage 3-4



### Assessments and Interventions by HY Stage

	HY 1	HY 2-3	HY 4	HY-5
<b>Assessment</b>	Gait and Balance	Gait and Balance	Freezing, Balance, Gait, and Physical Function	Body Structure & Function, Physical Function, Quality of Life, Pain, Freezing
<b>Treatment</b>	Activity & Exercise Rx, Agility, Dual Task	Gait, Balance, Exercise Rx, Amplitude Training	Balance, Gait, Home Safety, Functiona I Mobility	Functional Mobility, Home Safety, Pain Management, Cueing

### % of Referrers with Access to Community Exercise or Outpatient (OP) PT Services

Community High-Intensity Exercise Class	75%
Community Low-Intensity Exercise Class	80%
OP PT within Movement Disorder Clinic	67%
OP PT within Medical Center	94%
Network of OP PTs Trained in Community	90%
PT for Pre and/or Post DBS Eval & Treat	57%
Tele-Rehab (Phone or Video)	6%

### Trained PTs in Other Settings (% of Referrers with Access)

Acute Care	66%	Inpatient Rehab	55%
Home Health	38%	Skilled Nursing Facility	32%

### Long-Term Maintenance Recommendations

- 70% of Referrers and PTs would recommend PT at least every 6-12 months in HY 1 not meeting exercise guidelines.
- Visit frequency increases with disease severity.

### PT Facilitators

- Define care paths, including consultative & restorative
- Educate referrers, physical therapists, and people with PD on role of PT, importance of routine follow-ups and interpretation of insurance coverage
- Location of knowledgeable providers at expert centers or maintain training in local communities
- Support administrative tasks (scheduling, insurance authorization, and communication, care coordination)

## Conclusion

Identifying distinct care paths for consultative exercise prescription versus restorative PT may clarify role of PT in early PD. Quality improvement efforts should target all stakeholders.

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