Implementing Systematic Screening and a Treatment Algorithm for Depression in Parkinson's Disease

C. Marras, MD, PhD[1]; A. Naito, PhD[2]; J. Beck, PhD[2]; R. DeLeon[2]; M. Neault, PhD[2]; A. Allen, LCSW[3]; E. Nelson, DSc, MPH[4]; S. Luo, PhD[3]; S. Mantri, MD[3]; D. Weintraub, MD[5]

1. University of Toronto, Toronto Western Hospital, Toronto, ON, Canada 2. Parkinson's Foundation, New York, NY, USA. 3. Duke University, Durham, NC, USA. 4. Dartmouth Hitchcock Medical Center, Hanover, NH, USA. 5. University of Pennsylvania, Philadelphia, PA, USA.

Parkinson's Foundation

Parkinson.org

OBJECTIVE

Assess the feasibility and impact of systematic depression screening and management in movement disorders centers.
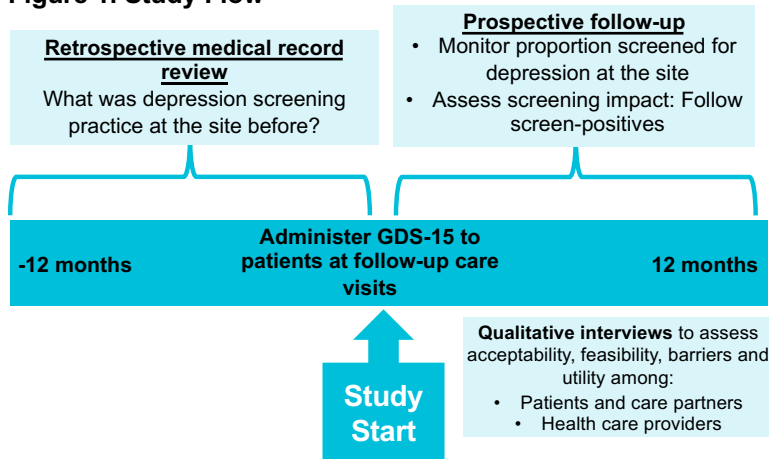
BACKGROUND

Depression is common in Parkinson's disease (PD) and has a significant impact on quality of life. A survey of clinicians at Parkinson's Foundation Centers of Excellence (PF COEs) revealed that most centers do not systematically screen for depression, and that the use of mental health professionals and antidepressants varies substantially, suggesting that clinical practice changes could improve care. Here we describe the methods and outcome measures for a study designed to implement systematic screening and a treatment algorithm for PD depression as a standard of care.

METHODS

A mental health working group was convened, consisting of experts in Parkinson's clinical research, psychiatry, social work, narrative medicine, implementation science, biostatistics, and a person living with PD. Additional psychiatry and psychology experts helped design a depression treatment algorithm and educational materials.

Figure 1. Study Flow

Retrospective medical record review
What was depression screening practice at the site before?

Prospective follow-up
- Monitor proportion screened for depression at the site
- Assess screening impact: Follow screen-positives

-12 months

Administer GDS-15 to patients at follow-up care visits

12 months

Study Start

Qualitative interviews to assess acceptability, feasibility, barriers and utility among:
- Patients and care partners
- Health care providers

ACKNOWLEDGEMENTS

Figure 2. Recommended depression treatment algorithm

GDS-15 score ≥ 5 OR clinically significant depression based on GDS-15 score distribution and clinical assessment

INITIATE or MODIFY TREATMENT

PHARMACOTHERAPY

WATCHFUL WAITING

AND/OR

PSYCHOTHERAPY

Trial of SSRI (e.g., paroxetine, sertraline, escitalopram). Consider MAO-B inhibitor use re: risk of serotonin syndrome.

Course of psychotherapy (e.g., 10-12 sessions of Cognitive Behavioral Therapy).

Re-evaluate a 4-6 weeks. Consider repeat GDS-15. Adjust treatment if indicated.

Re-evaluate at end of psychotherapy course for antidepressant trial and follow guidelines to left.

Switch to SNRI (e.g., venlafaxine), consider psychotherapy.

Refer to psychiatrist

Consider augmentation with or switch to bupropion or mirtazapine.

Consider switch to tricyclic antidepressant.

Consider augmentation with or switch to dopamine agonist (e.g., pramipexole).

Figure 3. HOPE-D shared decision-making tool for depression (Barr PJ, *et al. BMJ Open* 2019)

Barr PJ, *et al. BMJ Open* 2019;9:e025375. doi:10.1136/bmjopen-2018-025375

METHODOLOGY

Two PF COEs in Canada and three in the United States will participate. To assess baseline depression screening practices, a consecutive sample of medical records will be reviewed. Prospectively, systematic depression screening of all PD patients will be implemented using the Geriatric Depression Scale-15 (GDS-15) (Figure 1). Clinicians will be provided with a recommended treatment algorithm (Figure 2), a shared decision-making tool specific for depression (Figure 3), and patient-facing educational resources. One hundred thirty individuals screening positive for depression will be prospectively followed for changes in health-related quality of life (PDQ-39) and GDS-15 scores. A subset of people with PD, care partners and health care providers will participate in qualitative interviews to assess the feasibility and acceptability of depression screening.

The primary outcome is the feasibility and acceptability of systematic depression screening. Secondary outcomes include the proportion of patients screening positive for depression and, within that group, the change in GDS-15 and PDQ-39 emotional subscales over 12 months.

CONCLUSION

This study will test the hypothesis that implementation of systematic depression screening will help to elucidate the logistics and impact of depression screening in routine care. Ultimately, the study will help identify unrecognized depression in PD, improve depression care, and improve quality of life for those living with PD.