BACKGROUND

Anxiety in people with Parkinson’s disease (PwP)

The complex interaction between anxiety and motor fluctuations in PwP results in unstable and often cyclical symptoms of anxiety, which impacts the utility of anxiety rating scales. Estimates suggest that over 30% of PwP experience anxiety, although there is no evidence-based treatment that can be recommended for anxiety in PwP.2,3

OBJECTIVE: (1) To develop an inventory to assess PwP specific anxiety for person centred psychotherapy interventions; (2) To develop a manualised cognitive behaviour therapy (CBT) for successful treatment of anxiety in patients with Pwp.

METHOD

Recruitment: Non-demented PwP recruited from neurology outpatient clinics in Brisbane & the Queensland Parkinson’s Project database.

Assessments: Anxiety assessed using Mini International Neuropsychiatric Interview (MINI-PLUS), & Parkinson Anxiety Scale (PAS).

New Parkinson’s Disease Specific Anxiety Inventory (PDSAI):

- Self-report evaluation of anxiety symptoms from 5 domains: disease related, motor, non-motor, cognitive, impairment, and complications of therapy.

CBT RCT (ACTRN12616000764437): CBT intervention group (n=9) & Control group (n=11), 35% attrition.

Ethics: This project was approved by the University of Queensland, Royal Brisbane & Women’s Hospital and Princess Alexandra Hospital Human Research Ethics committees.

Data analysis for the development and validation of the PDSAI: T-tests and Reliable Change Index (RCI) analysis to evaluate outcomes of CBT intervention.

RESULTS

Parkinson’s Disease Specific Anxiety Inventory (PDSAI)

- 40% PWP (29/72) met DSM-5 criteria for anxiety disorders.
- PDSAI scores were significantly higher in the PwP anxiety disorder group (mean PDSAI=17.34, SD=7.74) vs. PwP without anxiety group (mean PDSAI=7.56, SD=6.84, t=-5.65, p<0.001).

Figure 1: A selection of PD-specific symptoms assessed using the PDSAI. Frequency is presented in a pilot sample of N=72 PWP

- Worry about burden to family due to PD
- Embarrassment due to motor symptoms
- Fear of falling
- Anxiety due to sleep disturbances
- Embarrassment due to cognitive symptoms
- Anxiety related to off periods
- Anxiety related to ICDS

Figure 2: A comparison of anxiety outcomes between pre- and post- CBT intervention (preliminary results). *Significantly different to pre-intervention. A: PAS scores [M post=15.25, SD = 5.15; M pre = 11.65, SD = 4.65; paired t(19)= -2.99, p = 0.008, d = -0.67, RCI= 45% clinical significant improvement], B: PAS B- episodic anxiety [M post= 2.25, SD = 2.9; M pre = 3.25, SD = 2.31; t(19)= -2.44, p = 0.025, d = -0.55], and C: PDSAI scores [M post = 11.95, SD = 7.29, Mdn = 11; M pre= 15.65, SD = 7.37, Mdn = 15; Z = -1.98, p = 0.048, r = -0.31].

CONCLUSION

The IDATA-PD study is the first to trial CBT for anxiety in PD. The PDSAI may improve evaluation and selection of anxious PwP for successful anxiety treatment using CBT. CBT 2 RCT including virtual reality technology (8-weekly sessions) is currently underway with 11 PwP randomised to CBT-VR vs control, to date (ACTRN12618001508260).8

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