

Sensitivity to change of the PDQ-Exercise

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Objective:

Exercise is recognised as an important tool in the management of Parkinson’s disease. The PDQ-Exercise is a newly developed seven-item patient reported outcome measure (PROM) that has been developed to assess the efficacy of studies that focus on or incorporate an exercise component. Validation surveys indicate that the measure demonstrates excellent validity, internal consistency and test-retest reliability. A further important attribute of any PROM is sensitivity to change; the capacity to detect meaningful changes in health status over time. The objective of this study was to make an assessment of the sensitivity to change of the PDQ-Exercise and identify the minimally important difference (MID) and effect size for the measure.

Methods:

People with Parkinson’s (PwP) were recruited through Parkinson’s UK. Participants completed the PDQ-Exercise online on two occasions, six months apart. On second administration participants answered an additional four questions asking how much, or otherwise, their health had changed over the period of time in question. Subsequent analyses focused on those PwP indicating small changes in their health status.

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Results:

At first administration 398 PwP fully completed the PDQ-Exercise and at second administration 268 participants who responded with no missing data were included. The percentage of those who reported their QoL health as ‘a little better’ was 23.5% (n=63), whilst 10.8% (n=29) reported their health as ‘a little worse’. No meaningful analysis could be conducted for the former as mean values were virtually identical. For the latter the mean score at first administration was 38.55 and at second administration was 44.10. The MID was calculated as 5.55, with an effect size of 0.25. Further details can be viewed in Table 1.

Table 1: Participant characteristics at first and second administration (standard deviation)

	Mean age	Age range	Mean disease duration (years)	% Male (n): % Female (n)
T1 (n=398)	65.5 (8.6)	40-90	5.7 (4.7)	47.7 (190): 52.3 (208)
T2 (n=268)	66.1 (8.5)	40-88	5.3 (4.2)	46.3 (124): 53.7 (144)

Conclusion:

Results indicate that the PDQ-Exercise demonstrates sensitivity to deterioration in the health of PwP. This, in conjunction with previously reported psychometric characteristics, indicates that the measure can confidently be incorporated in evaluative studies and clinical trials.

If you have any questions about the PDQ-Exercise or want to find out more about the research, please contact healthoutcomes@innovation.ox.ac.uk

Alternatively you can visit the COA page on Oxford University Innovation’s website using the QR code!

