Sensitivity to change of the Oxford Participation and Activities Questionnaire in people with Parkinson's

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Aims:

The Oxford Participation and Activities Questionnaire (OX-PAQ) is a fully FDA compliant, 23-item generic patient reported outcome measure that is theoretically grounded in the World Health Organisation International Classification of Functioning, Disability and Health. The measure comprises three domains, Routine Activities (14-items), Emotional Well-Being (5 items) and Social Engagement (4 items). Initial analyses indicate that the measure is valid, reliable and sensitive to change in a group of neurological conditions. The aim of this study was to make an assessment of the sensitivity to change of the OX-PAQ exclusively in people with Parkinson's (PwP).

Methods:

PwP were recruited through Parkinson's UK and completed the Ox-PAQ electronically on two occasions, six months apart. Participants completed an additional four questions during the second administration of the Ox-PAQ in order to assess any relevant changes since baseline completion. For each of the three Ox-PAQ domains the minimally important difference (MID) and effect size (ES) was calculated from the participants who indicated small, but meaningful changes in health status.

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

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

Results:

Participants who completed the Ox-PAQ on both occasions and with no missing data for at least one Ox-PAQ domain were entered into the final analysis. This equated to 268 respondents (67.34% of the original sample). In those indicating that their health status was 'slightly worse', for Routine Activities (n=67) a MID of 5.49 and an ES of 0.28 was calculated. For Social Engagement (n=73) the MID was 5.91 and the ES 0.29. For Emotional Well-Being (n=72) the MID was 4.92 and the ES 0.27. In those indicating that their health status was 'slightly better', for Routine Activities (n=21) a MID of 2.91 and an ES of 0.16 was calculated. For Social Engagement (n=16) the MID was 1.90 and the ES 0.10. For Emotional Well-Being (n=20) the MID was 4.50 and the ES 0.27. Further details can be viewed in Tables 1 and 2.

	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)

Table 1: Participant characteristics at first and second Ox-PAQ administration (*standard deviation*)

Routine Activities		Social Engagement		Emotional Well-Being	
Slightly worse (n=67)	Mean (SD)	*Slightly worse (n=73)*	Mean (SD)	*Slightly worse (n=72)*	Mean (SD)
T1	39.54 (19.84)	T1	35.70 (20.34)	T1	49.59 (18.33)
T2	45.03 (21.84)	T2	41.61 (21.83)	T2	54.51 (16.21)
MID: 5.49	ES: 0.28	MID: 5.91	ES: 0.29	MID: 4.92	ES: 0.27
Slightly better (n=21)	Mean (SD)	*Slightly better (n=16)*	Mean (SD)	*Slightly better (n=20)*	Mean (SD)
T1	28.25 (18.29)	T1	27.73 (18.40)	T1	40.25 (16.67)
T2	25.34 (21.25)	T2	25.83 (15.10)	T2	35.75 (17.86)
MID: 2.91	ES: 0.16	MID: 1.90	ES: 0.10	MID: 4.50	ES: 0.27

Table 2: Ox-PAQ Sensitivity to Change in PD Analysis. (SD) standard deviation, MID = minimally important difference, ES = effect size

Conclusion:

Data presented provides MID and effect sizes for Ox-PAQ domains that will act as guidance for those powering clinical trials assessing activity and participation in PwP. Ongoing research with alternative conditions will provide further sensitivity to change data for the Ox-PAQ.