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Correlates of the discrepancy between objective and subjective cognitive functioning in non-demented patients with Parkinson's disease

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Background: Subjective complaints of cognitive deficits are not necessarily consistent with objective evidence of cognitive impairment in Parkinson's disease (PD) [1-3]. Here we examined the factors associated with the objective-subjective cognitive discrepancy.

Methods: We consecutively enrolled 90 non-demented patients with PD who completed the Parkinson's Disease Cognitive Functional Rating Scale (subjective cognitive measure) and the Montreal Cognitive Assessment (MoCA; objective cognitive measure). The patients were classified as "Overestimators", "Accurate estimators", and "Underestimators" on the basis of the discrepancy between the objective vs. subjective cognitive measures. To identify the factors distinguishing these groups from each other, we used Chi-Square tests or one-way Analyses of Variance, completed by logistic and linear regression analyses.

Results: Forty-nine patients (54.45%) were classified as "Accurate estimators", 29 (32.22%) as "Underestimators", and 12 (13.33%) as "Overestimators". Relative to the other groups, the "Underestimators" scored higher on the Fatigue Severity Scale (FSS), Beck Depression Inventory (BDI), and Parkinson Anxiety Scale ($p<0.01$). Logistic regression confirmed that FSS and BDI scores distinguished the "Underestimators" group from the others ($p<0.05$). Linear regression analyses also indicated that FSS and BDI scores positively related to objective-subjective cognitive discrepancy ($p<0.01$). "Overestimators" scored lower than other groups on the MoCA's total score and Attention and Working Memory subscores ($p<0.01$).

Conclusions: In more than 45% of consecutive non-demented patients with PD, we found a 'mismatch' between objective and subjective measures of cognitive functioning [2-3]. Such discrepancy, which was related to the presence of fatigue and depressive symptoms and frontal executive impairments, should be carefully evaluated in clinical setting.

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