Supplementary material

Table 1 – Supplementary material. Correlations between depression and anxiety scores and the PDQ-39 scores

Group			Mobility	ADL	Emotional well–being	Stigma	Social support	Cognition	Communication	Bodily discomfort	PDQ–39 SI	PDQ–39 SI Cog–adj	PDQ–39 SI Comm–adj
PD–nMCI	Depression	ρ	.111	.017	.340	.479	.545	−.207	−.105	.214	.330	.324	.361
		P	.566	.930	.071	.009	.002	.282	.588	.265	.080	.086	.054
		S–value	.82	.1	3.82	6.8	8.97	1.83	.77	1.92	3.64	3.54	4.21
	Anxiety	ρ	−.023	−.020	.333	.175	.203	.188	−.173	.025	.086	.060	.129
		P	.906	.919	.078	.365	.291	.329	.369	.896	.656	.757	.504
		S–value	.14	.12	3.68	1.45	1.78	1.6	1.44	.16	.61	.4	.99
PD–MCI	Depression	ρ	.180	.246	.620	.190	.162	.424	.448	.212	.497	.422	.497
		P	.597	.465	.042	.576	.635	.194	.167	.532	.120	.196	.120
		S–value	.74	1.1	4.57	.8	.66	2.37	2.58	.91	3.06	2.35	3.06
	Anxiety	ρ	.174	.253	.593	.176	.114	.417	.438	.162	.482	.406	.482
		P	.608	.453	.054	.605	.738	.202	.178	.634	.134	.215	.134
		S–value	.72	1.14	4.21	2.51	.44	2.31	2.49	.66	2.9	2.22	2.9

ADL: activities of daily living dimension; PD-MCI: Parkinson's disease with mild cognitive impairment; PD-nMCI: Parkinson's disease without mild cognitive impairment; PDQ-39 SI Cog-adj: Parkinson's Disease Questionnaire-39 adjusted summary index excluding items of the Cognition dimension; PDQ-39 SI Comm-adj: Parkinson's Disease Questionnaire-39 adjusted summary index excluding items of the Communication dimension; PDQ-39 SI: Parkinson's Disease Questionnaire-39 Summary Index.

Table 2 – Supplementary material. Additional adjusted partial correlations between the global HRQoL and the Cognition and Communication dimensions in PD-nMCI and PD-MCI groups

Dimension	Group	Correlation with adjusted PDQ-39 Summary Index*					
		Partial correlations (controlling for)					
		Depression		Anxiety		UPDRS-III, Depression, Anxiety	
		Coefficient	P-value (S-value)	Coefficient	P-value (S-value)	Coefficient	P-value (S-value)
Cognition	PD-MCI	.694	.026 (5.27)	.698	.025 (5.32)	.716	.046 (4.44)
	PD-nMCI	.235	.228 (2.13)	.142	.470 (1.09)	.103	.103 (3.28)
Communication	PD-MCI	.723	.018 (5.8)	.727	.017 (5.88)	.716	.046 (4.44)
	PD-nMCI	.490	.008 (6.97)	.449	.017 (5.88)	.426	.030 (5.06)

PD-MCI: Parkinson's disease with mild cognitive impairment; PD-nMCI: Parkinson's disease without mild cognitive impairment; UPDRS-III: Unified Parkinson's Disease Rating Scale part III.

*For the correlations with the Cognition dimension, the PDQ-39 Summary Index was calculated excluding the Cognition items. For the correlations with the Communication dimension, the PDQ-39 Summary Index was calculated excluding the Communication items.

Spearman partial correlations were controlled for depression, anxiety, and the combination of motor and mood symptoms, to control the effect of these possible confounders on the estimations of the models. Depression and anxiety were measured with the frequency * severity scores of the Neuropsychiatric Inventory (NPI).

Table 3 – Supplementary material. Exploratory analysis of the PDQ-39 Dimension-total correlations in the PD-MCI and PD-nMCI groups

PDQ-39 Dimensions	PD-nMCI			PD-MCI		
	Coefficient	P-value	S-value	Coefficient	P-value	S-value
Mobility	.675	<.001	14.05	.720	.013	6.32
ADL	.713	<.001	16.12	.902	<.001	12.74
Emotional well-being	.678	<.001	14.18	.679	.022	5.53
Stigma	.733	<.001	17.35	.742	.009	6.8
Social support	.101	.603	.73	.567	.069	3.85
Cognition	.238	.215	2.22	.781	.005	7.78
Communication	.530	.003	8.33	.783	.004	7.85
Bodily discomfort	.564	.001	9.44	.559	.074	3.76

PD-MCI: Parkinson's disease with mild cognitive impairment; PD-nMCI: Parkinson's disease without mild cognitive impairment; UPDRS-III: Unified Parkinson's Disease Rating Scale part III.

Spearman partial correlations were controlled for depression, anxiety, and the combination of motor and mood symptoms, to control the effect of these possible confounders on the estimations of the models.

Figure 1 – Supplementary material. Clinical and sociodemographic variables distributions in PD-nMCI and PD-MCI groups. A: age (years) boxplot distributions. B: years of education boxplot distributions. C: boxplot distributions of years since clinical diagnosis of Parkinson's disease. D: levodopa equivalent daily dose boxplot distributions. E: Hoehn & Yahr stage boxplot distributions. F: Montreal Cognitive Assessment total score boxplot distributions. G: Neuropsychiatric Inventory total score boxplot distributions. H: Unified Parkinson's Diseases Rating Score-part III (motor subscale) boxplot distributions. PD-MCI: Parkinson's disease with mild cognitive impairment; PD-nMCI: Parkinson's disease without MCI.
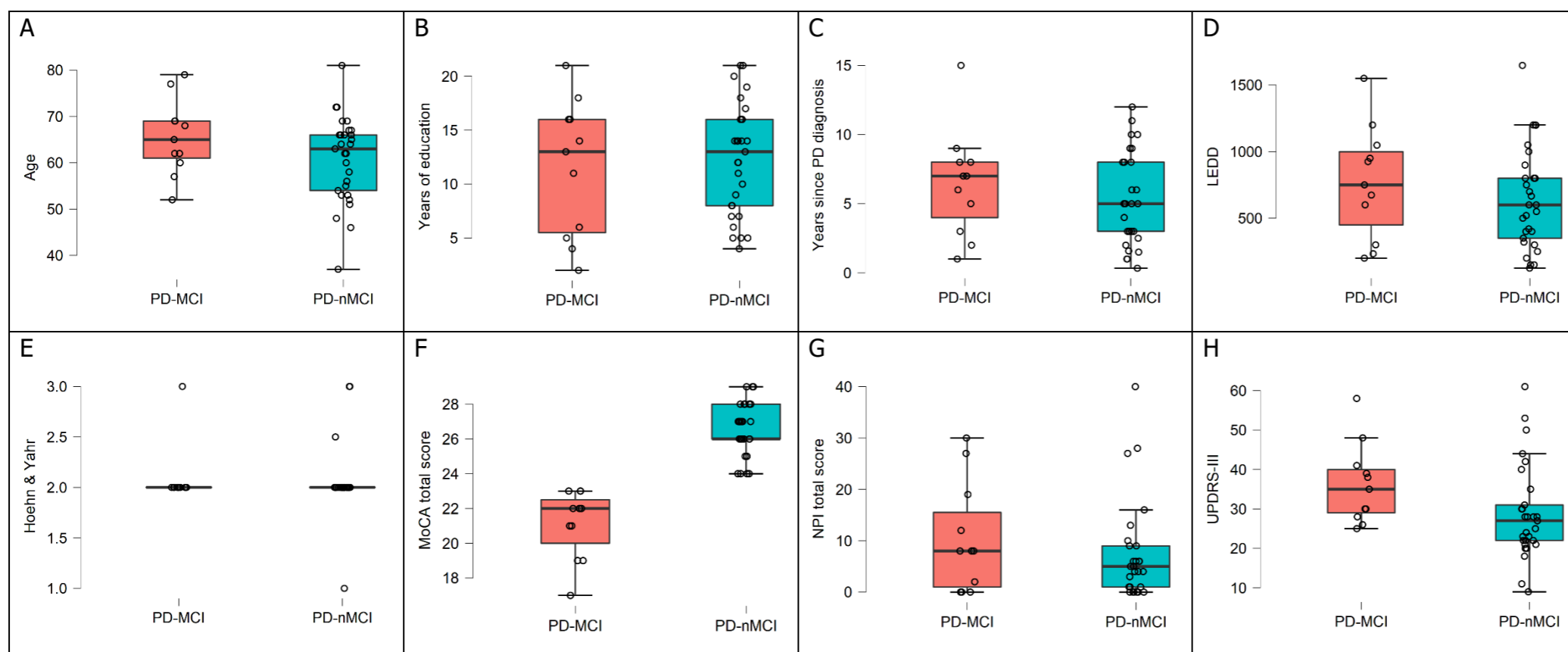
Figure 2 — Supplementary material. HRQoL in PD-nMCI and PD-MCI groups. A: PDQ-39 Mobility dimension boxplot distributions. B: PDQ-39 Stigma dimension boxplot distributions. C: PDQ-39 Cognitions dimension boxplot distributions. D: PDQ-39 Activities of daily living dimension boxplot distributions. E: PDQ-39 Emotional wellbeing dimension boxplot distributions. F: PDQ-39 Social support dimension boxplot distributions. G: PDQ-39 Communication dimension boxplot distributions. H: PDQ-39 Bodily discomfort. I: PDQ-39 Summary Index boxplot distributions. J: Cognition-adjusted PDQ-39 Summary index (PDQ-39 Summary index excluding the Cognition dimension). K: PDQ-39 Communication-adjusted PDQ-39 Summary Index (PDQ-39 Summary Index excluding the Communication dimension) boxplot distributions. PD-MCI: Parkinson's disease with mild cognitive impairment; PD-nMCI: Parkinson's disease without MCI.