## Supplementary Material

Patient-Related Factors Influencing Caregiver Burden in Parkinson's Disease Patients: Comparison of Effects Before and After Deep Brain Stimulation

Supplementary Table 1. Multivariable regression analysis (model 2)

| Questionnaire | $\boldsymbol{\beta}$ | $\mathbf{p}$ | $\mathbf{9 5 \%} \mathbf{C I}$ | $\mathbf{R}^{\mathbf{2}}$ |
| :--- | :---: | :---: | :---: | :---: |
| PDQ-39 | 0.129 | 0.091 | $-0.022-0.280$ | 0.478 |
| AS | 0.672 | 0.016 | $0.134-1.211$ |  |
| PAS | 0.122 | 0.519 | $-0.258-0.502$ |  |
| FOG | -0.050 | 0.833 | $-0.524-0.425$ |  |

Constant: $\mathrm{B}=-4.956$; $\mathrm{p}=0.103$; 95\% CI $-10.969-1.058$
PDQ-39, 39-item Parkinson's Disease Questionnaire; AS, Apathy Scale;
PAS, Parkinson Anxiety Scale; FOG, Freezing of Gait questionnaire


Supplementary Figure 1A. Hypothetical framework related to DBS surgery: the effect of patient-related covariates on DBS eligibility. Confounders are shown in boxes. DBS, Deep Brain Stimulation; PIGD, Postural-Instability-Gait-Disorder.


Supplementary Figure 1B. Hypothetical framework related to DBS surgery: the effect of DBS on patient-related covariates. Confounders are shown in boxes. DBS, Deep Brain Stimulation; PIGD, Postural-Instability-Gait-Disorder.


Supplementary Figure 2A. Predicted ZBI-12 value compared to observed ZBI-12 value.
The predicted values are calculated on the base of the multivariable regression analysis (Table 3, $\mathrm{R}^{2}=0.496$ ). The observed vs. predicted scores demonstrate a relatively good goodness-of-fi for both strata.
Blue circles: screening assessment, red circles: follow-up assessment.
Formula blue line: $y=1.03+1.1 x$, formula red line: $y=-2.16+1.03 x$
ZBI-12, 12-item Zarit Burden Interview.


Supplementary Figure 2B. Predicted ZBI-12 value compared to observed ZBI-12 value.
The predicted values are calculated on the base of the multivariable regression analysis (Supplement $1, \mathrm{R}^{2}=0.478$ ). The observed vs. predicted scores demonstrate a relatively good goodness-of-fit for both strata.
Blue circles: screening assessment, red circles: follow-up assessment.
Formula blue line: $\mathrm{y}=-0.76+0.79 \mathrm{x}$, formula red line: $\mathrm{y}=-0.49+0.91 \mathrm{x}$ ZBI-12, 12-item Zarit Burden Interview.

