

# Supplementary text #1

## Regression of CPT an HPT using clinical variables as regressors

### CON

The obtained regressions were not significant according to CV-ANOVA.

In detail, for the non-significant CPT regression (one predictive component;  $R^2=0.25$ ,  $Q^2=-0.07$ , CV-ANOVA p-value: ns) the most important variables ( $VIP>1.0$ ) were HADS ( $VIP_{pred}=1.39$ ;  $p(\text{corr})=0.79$ ) and age ( $VIP_{pred}=1.06$ ;  $p(\text{corr})=-0.60$ ) followed by PCS ( $VIP_{pred}=0.88$ ;  $p(\text{corr})=0.50$ ), QOLS ( $VIP_{pred}=0.79$ ;  $p(\text{corr})=-0.45$ ), and BMI ( $VIP_{pred}=0.74$ ;  $p(\text{corr})=0.42$ ).

For the non-significant regression of HPT (one predictive component;  $R^2=0.11$ ,  $Q^2=-0.13$ , CV-ANOVA p-value: ns) were found that age ( $VIP_{pred}=1.62$ ;  $p(\text{corr})=0.89$ ) and PCS ( $VIP_{pred}=1.20$ ;  $p(\text{corr})=-0.66$ ), were the most important ( $VIP>1.0$ ) followed by QOLS ( $VIP_{pred}=0.77$ ;  $p(\text{corr})=0.42$ ), HADS ( $VIP_{pred}=0.58$ ;  $p(\text{corr})=-0.32$ ) and BMI ( $VIP_{pred}=0.05$ ;  $p(\text{corr})=-0.02$ ).

### CWP

The regression of CPT was not significant. In detail, for the non-significant CPT regression ( $R^2=0.38$ ,  $Q^2=0.06$ , CV-ANOVA p-value: ns; one predictive component) HADS ( $VIP_{pred}=1.47$ ;  $p(\text{corr})=0.78$ ) and QOLS ( $VIP_{pred}=1.25$ ;  $p(\text{corr})=-0.67$ ), NRS-neck ( $VIP_{pred}=1.04$ ;  $p(\text{corr})=0.56$ ) were the most important ( $VIP>1.0$ ) followed by age ( $VIP_{pred}=1.00$ ;  $p(\text{corr})=-0.53$ ), NRS-shoulders ( $VIP_{pred}=0.88$ ;  $p(\text{corr})=0.47$ ), PCS ( $VIP_{pred}=0.60$ ;  $p(\text{corr})=0.32$ ) and BMI ( $VIP_{pred}=0.21$ ;  $p(\text{corr})=0.11$ ).

For the significant regression of HPT ( $R^2=0.67$ ,  $Q^2=0.41$ , CV-ANOVA p-value: 0.043; one predictive component) were found that HADS ( $VIP_{pred}=1.78$ ;  $p(\text{corr})=-0.85$ ), QOLS ( $VIP_{pred}=1.60$ ;  $p(\text{corr})=0.77$ ), were the most important and significant variables ( $VIP>1.0$ ) followed by BMI ( $VIP_{pred}=0.81$ ;  $p(\text{corr})=-0.39$ ), NRS-shoulders ( $VIP_{pred}=0.48$ ;  $p(\text{corr})=-0.23$ ), NRS-neck ( $VIP_{pred}=0.43$ ;  $p(\text{corr})=-0.21$ ), PCS ( $VIP_{pred}=0.34$ ;  $p(\text{corr})=0.16$ ) and age ( $VIP_{pred}=0.27$ ;  $p(\text{corr})=0.13$ ).