

Table S1. Relationships between Daily Sleepiness, Fatigue Symptoms and cardiac autonomic parameters.

Variable	CFQ Score		ESS Score	
	R	<i>p</i> -Value	R	<i>p</i> -Value
CFQ [score]	-0.03	0.826	0.17	0.212
EDSS	0.27	0.04	-0.11	0.402
Disease duration [years]	0.09	0.517	-0.11	0.416
Age [years]	0.01	0.947	-0.33	0.011
ESS [score]	0.17	0.212		
HR [1/min]	-0.2	0.137	-0.18	0.165
sBP [mmHg]	0.14	0.288	-0.1	0.46
dBp [mmHg]	0.05	0.698	-0.15	0.264
mBP, [mmHg]	0.09	0.515	-0.14	0.296
CI [L/(min·m ²)]	-0.07	0.58	0.18	0.182
TPRI [dyn·s·m ² /cm ⁵]	0.1	0.439	-0.2	0.141
LFnu-RRI [%]	-0.21	0.105	-0.17	0.215
HFnu-RRI [%]	0.22	0.099	0.16	0.217
PSD-RRI [ms ²]	0.09	0.496	0.21	0.113
LF/HF-RRI [1]	-0.23	0.088	-0.18	0.175
LF/HF [1]	-0.17	0.195	-0.28	0.033
LFnu-dBP [%]	-0.05	0.705	-0.32	0.013
HFnu-dBP [%]	0.13	0.324	0.23	0.08
PSD-dBP [mmHg ²]	-0.16	0.244	-0.04	0.786
LFnu-sBP [%]	-0.2	0.127	-0.42	0.001
HFnu-sBP [%]	0.04	0.738	0.17	0.201
PSD-sBP [mmHg ²]	-0.02	0.886	-0.24	0.073
BRS [ms/mmHg]	-0.03	0.826	0.23	0.093
ΔPHASE ₁ HR [1/min]	0.14	0.307	0.14	0.297
ΔPHASE ₁ sBP [mmHg]	-0.03	0.813	0.07	0.623
ΔPHASE ₁ dBP [mmHg]	-0.05	0.711	0.01	0.961
ΔPHASE ₁ mBP [mmHg]	-0.05	0.711	0.03	0.828
ΔPHASE ₁ CI [L/(min·m ²)]	0.05	0.706	-0.12	0.371
ΔPHASE ₁ TPRI [dyn·s·m ² /cm ⁵]	0.1	0.463	0.04	0.761
ΔPHASE ₁ LFnu-RRI [%]	0.07	0.599	0.17	0.204
ΔPHASE ₁ HFnu-RRI [%]	-0.09	0.515	-0.18	0.172
ΔPHASE ₁ PSD-RRI [ms ²]	0.09	0.479	-0.17	0.196
ΔPHASE ₁ LF/HF-RRI [1]	0.02	0.857	0.18	0.169
ΔPHASE ₁ LF/HF [1]	0.03	0.819	0.17	0.192
ΔPHASE ₁ LFnu-dBP [%]	-0.15	0.25	0.1	0.461
ΔPHASE ₁ HFnu-dBP [%]	-0.04	0.75	-0.21	0.119
ΔPHASE ₁ PSD-dBP [mmHg ²]	0.22	0.092	0	0.975
ΔPHASE ₁ LFnu-sBP [%]	0.15	0.266	0.1	0.445
ΔPHASE ₁ HFnu-sBP [%]	0.11	0.415	-0.08	0.54
ΔPHASE ₁ PSD-sBP [mmHg ²]	-0.08	0.552	0.19	0.156
ΔPHASE ₁ BRS [ms/mmHg]	0.08	0.548	-0.21	0.114
ΔPHASE ₂ HR [1/min]	0.09	0.516	0.14	0.286
ΔPHASE ₂ sBP [mmHg]	0.15	0.275	0.16	0.24
ΔPHASE ₂ dBP [mmHg]	0.15	0.251	0.18	0.169
ΔPHASE ₂ mBP [mmHg]	0.13	0.321	0.2	0.127
ΔPHASE ₂ CI [L/(min·m ²)]	0.04	0.746	-0.1	0.466
ΔPHASE ₂ TPRI [dyn·s·m ² /cm ⁵]	0.15	0.269	0.13	0.349

ΔPHASE_2 LFnu-RRI [%]	-0.02	0.863	0.15	0.269
ΔPHASE_2 HFnu-RRI [%]	0.02	0.902	-0.15	0.246
ΔPHASE_2 PSD-RRI [ms^2]	0.02	0.853	-0.26	0.047
ΔPHASE_2 LF/HF-RRI [1]	-0.31	0.016	-0.07	0.596
ΔPHASE_2 LF/HF [1]	-0.36	0.005	-0.07	0.613
ΔPHASE_2 LFnu-dBP [%]	-0.09	0.52	0.2	0.125
ΔPHASE_2 HFnu-dBP [%]	0.12	0.365	-0.22	0.099
ΔPHASE_2 PSD-dBP [mmHg^2]	0.22	0.097	-0.06	0.678
ΔPHASE_2 LFnu-sBP [%]	0.17	0.199	0.12	0.375
ΔPHASE_2 HFnu-sBP [%]	0.16	0.239	-0.07	0.614
ΔPHASE_2 PSD-sBP [mmHg^2]	-0.06	0.657	0.09	0.494
ΔPHASE_2 BRS [ms/mmHg]	0.08	0.524	-0.23	0.079
ΔPHASE_3 HR [1/min]	0.02	0.898	0.12	0.361
ΔPHASE_3 sBP [mmHg]	0.13	0.314	0.13	0.317
ΔPHASE_3 dBP [mmHg]	0.09	0.505	0.28	0.034
ΔPHASE_3 mBP [mmHg]	0.09	0.477	0.24	0.073
ΔPHASE_3 CI [$\text{L}/(\text{min}\cdot\text{m}^2)$]	0.02	0.854	-0.11	0.419
ΔPHASE_3 TPRI [$\text{dyn}\cdot\text{s}\cdot\text{m}^2/\text{cm}^5$]	0.12	0.386	0.12	0.354
ΔPHASE_3 LFnu-RRI [%]	0.06	0.635	0.22	0.093
ΔPHASE_3 HFnu-RRI [%]	-0.06	0.635	-0.22	0.093
ΔPHASE_3 PSD-RRI [ms^2]	-0.12	0.372	-0.15	0.257
ΔPHASE_3 LF/HF-RRI [1]	-0.16	0.226	0.1	0.456
ΔPHASE_3 LF/HF [1]	-0.21	0.117	0.08	0.554
ΔPHASE_3 LFnu-dBP [%]	-0.14	0.31	0.13	0.341
ΔPHASE_3 HFnu-dBP [%]	-0.04	0.782	-0.15	0.261
ΔPHASE_3 PSD-dBP [mmHg^2]	0.15	0.252	0.04	0.771
ΔPHASE_3 LFnu-sBP [%]	0.12	0.363	0.05	0.69
ΔPHASE_3 HFnu-sBP [%]	0.04	0.764	-0.03	0.819
ΔPHASE_3 PSD-sBP [mmHg^2]	0.01	0.938	0.07	0.605
ΔPHASE_3 BRS [ms/mmHg]	0.04	0.772	-0.21	0.112
ΔPHASE_4 HR [1/min]	0.06	0.644	0.11	0.417
ΔPHASE_4 sBP [mmHg]	0.18	0.176	0.09	0.505
ΔPHASE_4 dBP [mmHg]	0.21	0.109	0.28	0.034
ΔPHASE_4 mBP [mmHg]	0.2	0.137	0.22	0.09
ΔPHASE_4 CI [$\text{L}/(\text{min}\cdot\text{m}^2)$]	0.04	0.781	-0.07	0.606
ΔPHASE_4 TPRI [$\text{dyn}\cdot\text{s}\cdot\text{m}^2/\text{cm}^5$]	0.11	0.402	0.09	0.489
ΔPHASE_4 LFnu-RRI [%]	0.04	0.762	0.24	0.07
ΔPHASE_4 HFnu-RRI [%]	-0.04	0.769	-0.24	0.069
ΔPHASE_4 PSD-RRI [ms^2]	-0.09	0.521	-0.23	0.081
ΔPHASE_4 LF/HF-RRI [1]	-0.17	0.214	0.11	0.416
ΔPHASE_4 LF/HF [1]	-0.26	0.045	0.05	0.736
ΔPHASE_4 LFnu-dBP [%]	-0.1	0.46	0.09	0.524
ΔPHASE_4 HFnu-dBP [%]	0.01	0.961	-0.19	0.157
ΔPHASE_4 PSD-dBP [mmHg^2]	0.16	0.231	-0.06	0.63
ΔPHASE_4 LFnu-sBP [%]	0.14	0.287	0.11	0.429
ΔPHASE_4 HFnu-sBP [%]	0.03	0.818	-0.01	0.953
ΔPHASE_4 PSD-sBP [mmHg^2]	0.03	0.84	0.04	0.76
ΔPHASE_4 BRS [ms/mmHg]	0.13	0.337	-0.21	0.116

HR—heart rate; sBP—systolic blood pressure; dBP—diastolic blood pressure; mBP—mean blood pressure; CI—cardiac index; TPRI—total peripheral index; LFnu-RRI—low frequency R-R interval; in normalized units; HFnu-RRI—high-frequency R-R interval in normalized units; PSD-RRI—power spectral density R-R interval; LF/HF—ratio between low and high band for heart rate and blood pressure variability; PSD-sBP—power spectral density of systolic blood pressure variability;

LFnu-sBP—low frequency of systolic blood pressure variability in normalized units; HFnu-sBP—high frequency of systolic blood pressure variability in normalized units; PSD-dBP—power spectral density of diastolic blood pressure variability; LFnu-dBP—low frequency of diastolic blood pressure variability in normalized units; HFnu-dBP—high frequency of diastolic blood pressure variability in normalized units; BRS—baroreflex sensitivity; ESS score – excessive daily sleepiness; CFQ score-fatigue severity; Δ PHASE-baseline.