

**Table S1.** Characteristics and HRV data of naMCI and aMCI individuals (Mean  $\pm$  SD).

Variables	naMCI (n = 25)	aMCI (n = 18)	p-value	Effect size
Age (years)	69.8 $\pm$ 5.8	67.9 $\pm$ 4.9	0.295 <sup>a</sup>	0.348
Male/female (n)	13/12	6/11	0.286 <sup>b</sup>	0.334
Height (cm)	171.36 $\pm$ 7.77	169.71 $\pm$ 10.34	0.557 <sup>a</sup>	0.186
Bodyweight (kg)	72.42 $\pm$ 8.68	73.48 $\pm$ 15.16	0.336 <sup>c</sup>	0.048
BMI (kg/m <sup>2</sup> )	25.28 $\pm$ 1.73	25.36 $\pm$ 3.44	0.931 <sup>a</sup>	0.031
Years of education (years)	15.20 $\pm$ 2.27	15.39 $\pm$ 2.90	0.682 <sup>a</sup>	0.075
MMSE (score)	27.24 $\pm$ 1.13	27.24 $\pm$ 1.39	0.968 <sup>c</sup>	0.000
mHR (bpm)	66.24 $\pm$ 10.55	68.33 $\pm$ 8.99	0.507 <sup>a</sup>	0.210
RMSSD (ms)	23.58 $\pm$ 15.88	29.49 $\pm$ 15.37	0.170 <sup>c</sup>	0.185
HF nu	47.47 $\pm$ 21.95	48.33 $\pm$ 20.82	0.899 <sup>a</sup>	0.040
D2	0.43 $\pm$ 0.90	1.23 $\pm$ 1.68	0.405 <sup>c</sup>	0.300

naMCI: nonamnestic mild cognitive impairments; aMCI: amnestic mild cognitive impairments; SD: standard deviation; HRV: heart rate variability; BMI: body mass index; MMSE: Mini Mental State Examination; mHR: mean heart rate; RMSSD: square root of the mean squared differences of successive NN intervals; HF nu: high frequency power in normalized units.

a Student's t-test; b Chi-squared test; c Mann-Whitney U-test.

**Table S2.** Mean global and component PSQI scores of naMCI and aMCI individuals (Mean  $\pm$  SD).

Variables	naMCI (n = 25)	aMCI (n = 18)	p-value	Effect size
Subjective sleep quality	1.64 $\pm$ 0.76	1.29 $\pm$ 0.69	0.180	0.233
Sleep latency	1.04 $\pm$ 0.98	0.59 $\pm$ 0.94	0.099	0.227
Sleep duration	0.36 $\pm$ 0.76	0.59 $\pm$ 0.87	0.309	0.141
Sleep efficiency	0.44 $\pm$ 0.87	0.59 $\pm$ 0.87	0.405	0.086
Sleep disturbance	1.44 $\pm$ 0.58	1.18 $\pm$ 0.39	0.085	0.249
Sleep medication	0.16 $\pm$ 0.37	0.06 $\pm$ 0.24	0.326	0.152
Sleep dysfunction	0.88 $\pm$ 0.78	0.71 $\pm$ 0.77	0.470	0.109
Global score	5.96 $\pm$ 3.34	4.94 $\pm$ 2.84	0.401	0.160

PSQI: Pittsburgh Sleep Quality Index; naMCI: nonamnestic mild cognitive impairments; aMCI: amnestic mild cognitive impairments; SD: standard deviation.

Group differences were based on Mann-Whitney U-test.