## Comparing Objective Sleepiness Between Groups

To investigate if objective sleepiness upon awakening differed between groups, three one-way ANOVAs were conducted using a cluster mass permutation analysis (Figure 2).

### Alpha Attenuation Coefficient in Resting State EEG

No significant cluster differences for AAC were detected between groups before or after correcting for multiple comparisons, smallest uncorrected *p*channel-value *F*(2) = 2.66 *p*uncorrected = .080, *p*fwe = .710.

### Slowing Ratio in Eyes-Open and Eyes-Closed Resting State EEG

**Eyes Open.** There were no significant cluster differences between groups before or after correcting for multiple comparisons, smallest uncorrected *p*channel-value *F*(2) = 1.45, *p*uncorrected = .252, *p*fwe = .826.

**Eyes Closed.** There were no significant cluster differences between groups before or after correcting for multiple comparisons, smallest uncorrected *p*channel-value *F*(2) = 1.15, *p*uncorrected = .334, *p*fwe = .939.

**The Association Between Subjective and Objective Sleepiness Between Groups**

To investigate if there were differences in the association between subjective and objective sleepiness between groups, a general linear model with a cluster mass permutation analysis was conducted (Figure 3).

### Alpha Attenuation Coefficient in Resting State EEG

**Main Effect of KSS.** There were no significant cluster differences for a main effect of KSS, smallest uncorrected *p*channel-value *T* = -1.94, *p*uncorrected = .064, *p*fwe = .595.

**Main Effect of Group.** There were no significant cluster differences for a main effect of group. One channel in the left temporal region was significant at the uncorrected level but was non-significant after correction for multiple comparisons, *F*(2)= 4.54, *p*uncorrected = .021, *p*fwe = .314. All other channels were non-significant at the uncorrected level.

**Interaction Effect.** There were no significant cluster differences suggesting a significant interaction between groups. A cluster of 5 channels in the central cortical region was identified but did not reach significance, *F*(2) = 10.22, *p*cluster = .164.

### Slowing Ratio in Eyes-Open Condition

**Main Effect of KSS.** There were no significant cluster differences for a main effect of KSS, smallest uncorrected *p*channel-value *T* = 2.01, *p*uncorrected = .056, *p*fwe = .402.

**Main Effect of Group.** There were no significant cluster differences for a main effect of group, smallest uncorrected *p*channel-value *F*(2)= 1.63, *p*uncorrected = .211, *p*fwe = .830.

**Interaction Effect.** There were no significant cluster differences suggesting a significant interaction between groups, smallest uncorrected *p*channel-value *F*(2) = 3.11, *p*uncorrected = .065, *p*fwe = .452.

### Slowing Ratio in Eyes-Closed Condition

**Main Effect of KSS.** There were no significant cluster differences for a main effect of KSS. One channel in the left temporal region was significant at the uncorrected level but was non-significant after correction for multiple comparisons, *T* = -2.19, *p*uncorrected = .038, *p*fwe = .287. All other channels were non-significant at the uncorrected level.

**Main Effect of Group.** There were no significant cluster differences for a main effect of group, smallest uncorrected *p*channel-value *F*(2)= 1.16, *p*uncorrected = .327, *p*fwe = .938.

**Interaction Effect.** There were no significant cluster differences suggesting a significant interaction between groups, smallest uncorrected *p*channel-value *F*(2) = 2.09, *p*uncorrected = .145 *p*fwe = .685.