



Relation of subjective sleep quality to polysomnography in a large representative sample of women

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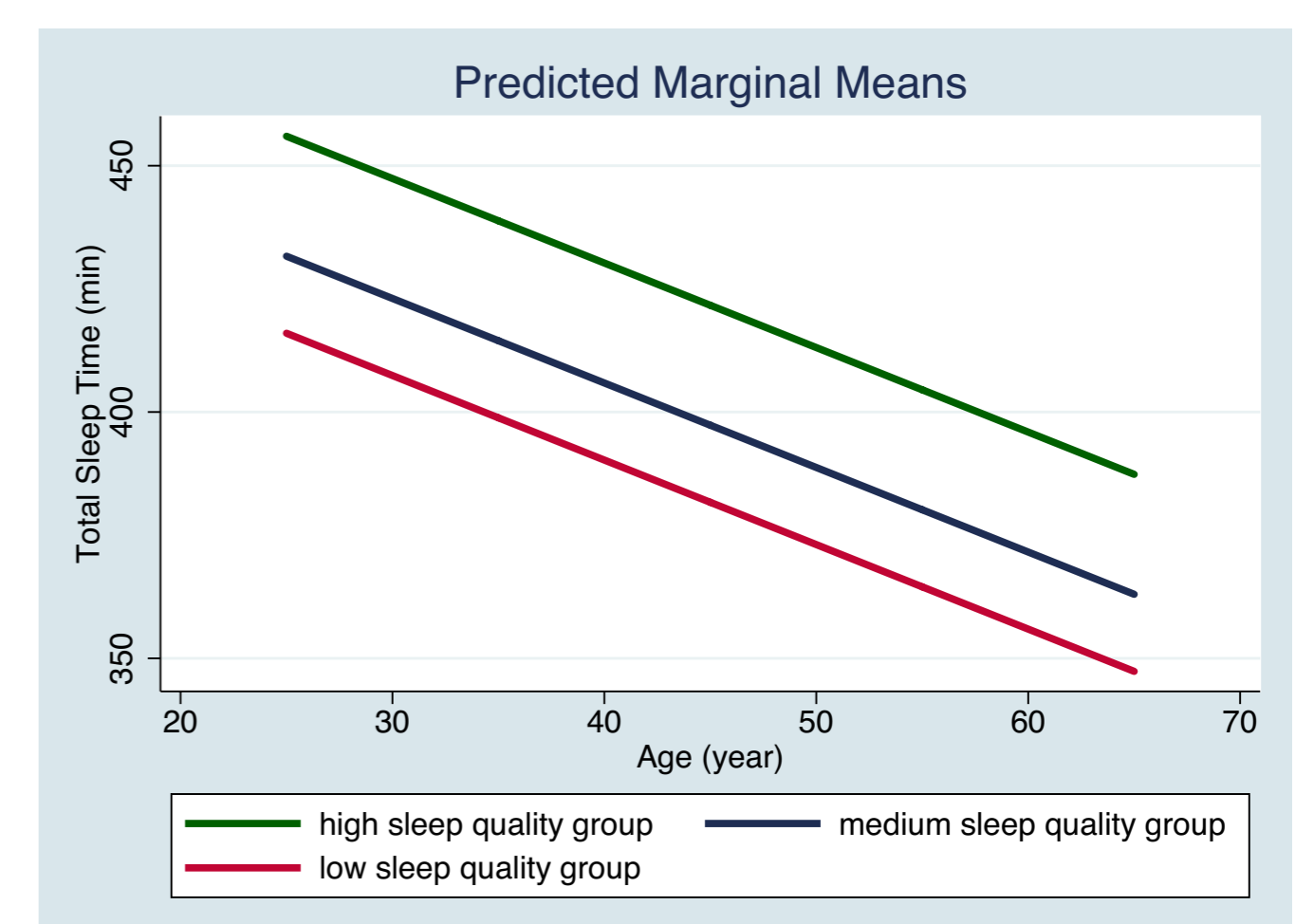
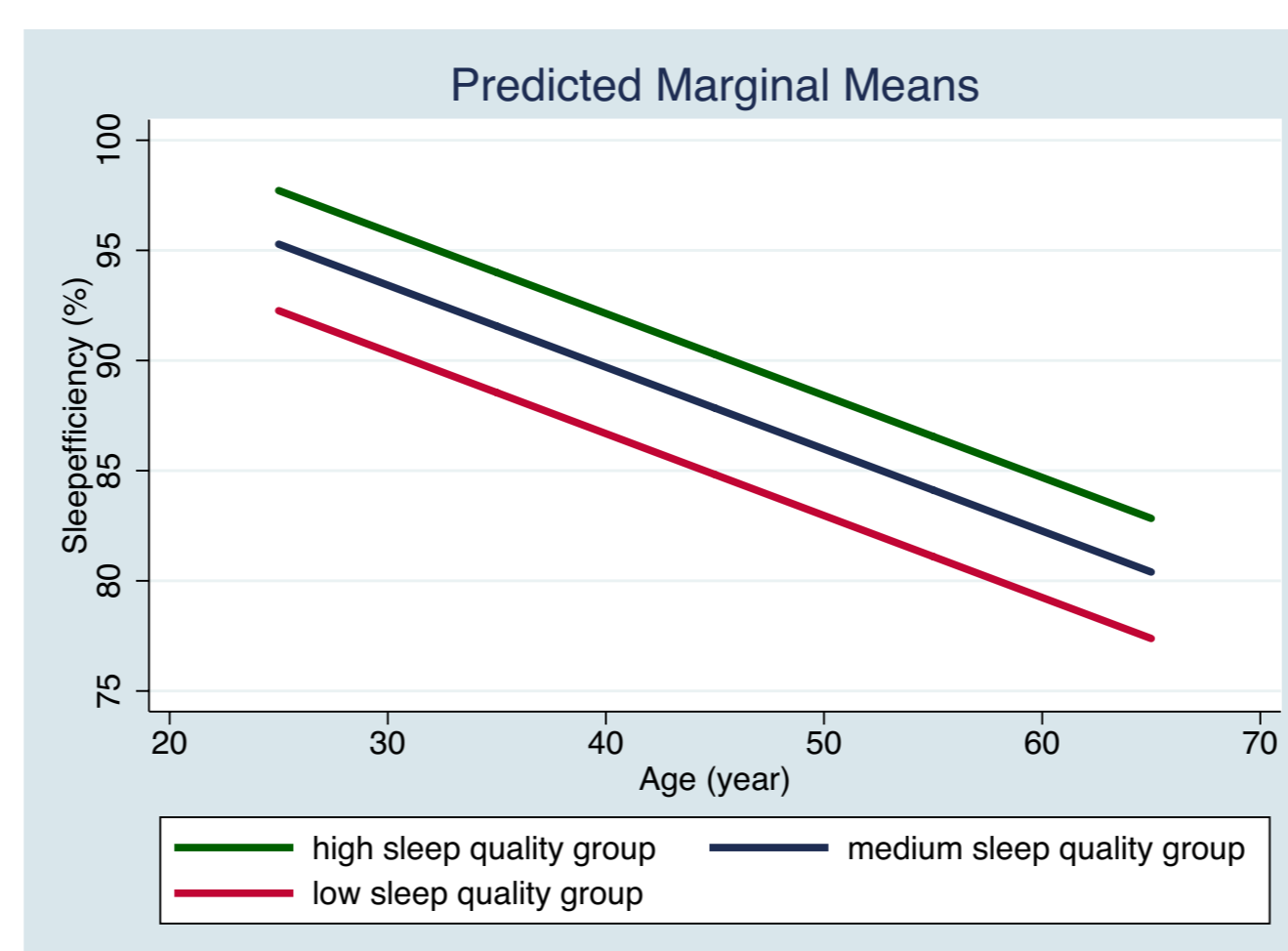
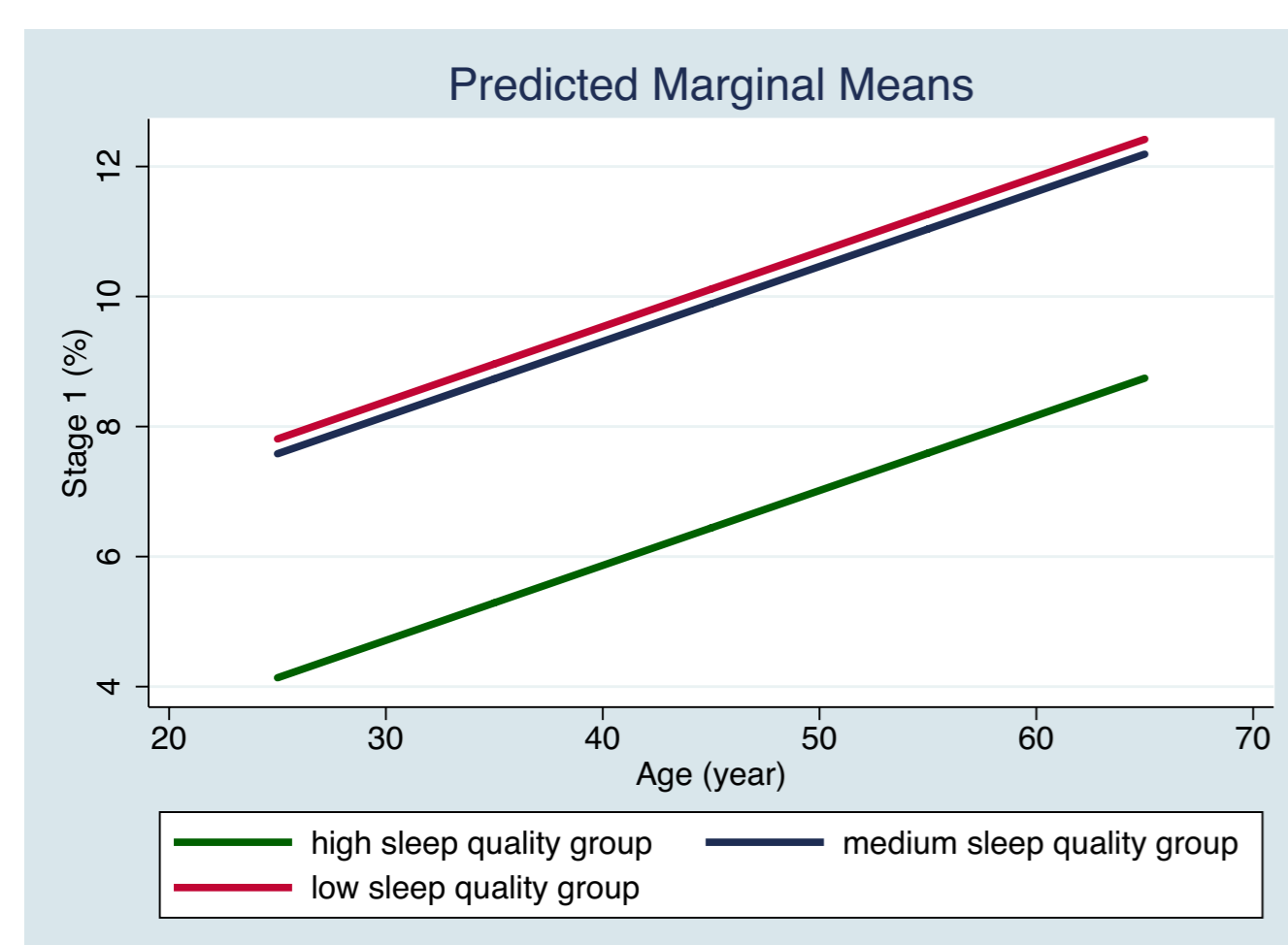
Lower subjective sleep quality and increasing age were associated with impaired sleep initiation, continuity, and length in a large representative sample of women. The relation between sleep quality and physiological sleep did not significantly change with increasing age.

Background

Sleep complaints are frequent in women, and increase with age, but the correspondence between subjective sleep quality and objective PSG measures of sleep is often low. However, sample size and representativity might be issues involved in this lack of relation.

Aim

We investigated the relation of subjective sleep quality and standard PSG sleep parameters in a large sample of women. Moreover, it was studied whether the relation between subjective sleep quality and objective sleep measures changes with increasing age.



Methods

Sample

- 368 non-pregnant women with complete data (from a randomly selected representative sample of 400 women, oversampling of snorers)
- Age (mean = 50.10 years, sd = 11.19, min = 22, max = 73)
- BMI (mean = 26.70, sd = 5.03, min = 17.18 max = 51.90)

Procedure

- one night of ambulant PSG recording & questionnaires

Measures

- standard PSG outcome measures
- subjective sleep quality (assessed on a visual analogue scale with a single item question (“How did you sleep?”) resulting in three groups (cut-offs at 33 and 66mm on the VAS)
 - high sleep quality (n = 86; reference group)
 - medium sleep quality (n = 120)
 - low sleep quality (n = 162)

Statistical Analysis

Multiple linear regression of standard PSG sleep parameters on subjective sleep quality groups & age (adjusted for BMI, AHI, depression and anxiety). Significance level $p < .05$ for all analyses.

Results

- **Sleep latency:**
 - increased with age
 - increased in the medium and low sleep quality group
- **Number of awakenings (> 60s):**
 - increased with age
 - increased in the low sleep quality group
- **Stage 1 (%):**
 - increased with age
 - increased in the medium and low sleep quality group
- **Stage 2 (%):**
 - increased with age
 - decreased in the medium sleep quality group
- **Stage 3/4 (%):**
 - no significant effect of age and sleep quality
- **REM (%):**
 - decreased with age
- **Total sleep time (min):**
 - decreased with age
 - decreased in the medium and low sleep quality group
- **Sleep efficiency (%):**
 - decreased with age
 - decreased in the low sleep quality group
- Including the interaction age*sleep quality did not significantly improve any regression model

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