



Good sleep in older women has similar polysomnographical characteristics as poor sleep in younger women

Torbjörn Åkerstedt¹, Eva Lindberg³, Georg Gruber⁴, & Johanna Schwarz^{1,2}, Jenny Theorell-Haglöw³

Stress Research Institute, Stockholm University, Stockholm, Sweden, 1 Stress Research Institute, Stockholm University, Stockholm, 2 Department of Psychology, Stockholm University, Stockholm, 3 Department of Medical Sciences Respiratory Medicine and Allergology, Uppsala University, Uppsala, Sweden, 4 The Siesta group, Vienna, Austria

Introduction

Women complain more of sleep than do men, but little is known about the relation to the macro- and microstructure of sleep and how age affect this relation. This was the topic of the present study.

Methods

Ambulatory polysomnographical (PSG) recordings were obtained in a representative sample of 400 non-pregnant women (oversampling of snorers) and analysed through automatic analysis and manually verified. Sleep quality ratings (poor, rather poor, average, good, very good sleep) at awakening after recording and age (cutoff 50.1 years) were related to PSG-derived data using ANOVA (300 participants after exclusions).

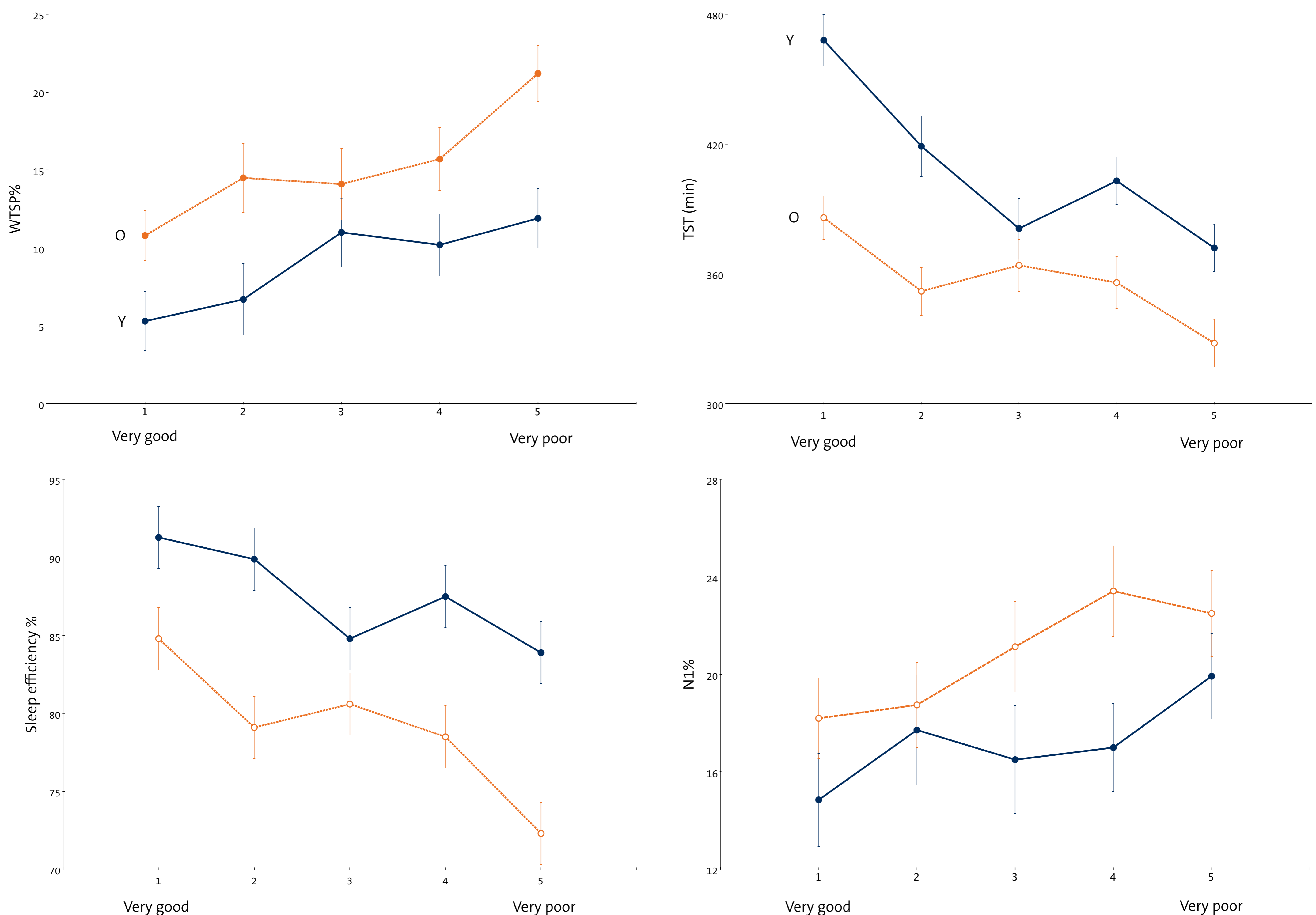
Results

Significant association between sleep quality ratings (good vs poor) and age and PSG measures were obtained for sleep efficiency, WTSP% (wake within sleep period, Changes to Stage wake, and Stage changes/h). Stage 1% increased with poor sleep (no age effect). Number of sleep spindles increased with poor sleep in young subjects only, while K-complexes and spectral data (delta, theta, beta power in NREM or REM) were not related to sleep quality. Also total sleep time increased with good sleep and young age. For most PSG variables Good sleep in the older group corresponded to poor sleep in the younger group.

Conclusions

Reported sleep quality is clearly related to PSG indicators of sleep continuity in a large, representative group of women, but age will change the PSG values characterizing good and poor sleep.

Figure 1



Polysomnographical parameters in young and older (divided at median = 51.5 years) individuals plotted against morning ratings of (poor) sleep quality (mean±se)