

Does sleep disturbance affect quality of life more than vasomotor symptoms in US postmenopausal women?

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INTRODUCTION

→ **Vasomotor symptoms (VMS) and sleep disturbance** are among the most common and bothersome symptoms in postmenopausal women.^{1,2} VMS and sleep disturbance frequently co-occur as VMS can contribute to night-time awakenings.³ However, VMS and sleep disturbance can also occur independently; only around one-third of night-time awakenings are accompanied by an episode of VMS.³

While it is well known that menopausal symptoms negatively impact a woman's quality of life (QoL),^{4,5} the relationship between sleep disturbance, VMS, and QoL is less clear.

In this study, we aimed to assess the association of sleep disturbance with QoL in postmenopausal women with and without VMS.

METHODS

→ **Data from postmenopausal women** (those reporting menstrual bleeding that ceased >12 months ago) aged 40–65 years who completed the internet-based US National Health & Wellness Surveys in either 2019 or 2021 were analyzed. A quota sampling approach was used to achieve a representative sampling of the adult US population based on the current US Census. Women were categorized by the **presence or absence of VMS** (defined as those reporting hot flashes or night sweats in the past 12 months) and by the **presence or absence of sleep disturbance**, yielding 4 groups.

Women with sleep disturbance were defined as those who reported sleep difficulties in the past 12 months or sleep symptoms at least weekly, including difficulty falling asleep, night-time awakenings, poor sleep quality, and daytime somnolence. QoL was assessed using four measures: Short-Form Health Survey (SF-36) v2 physical and mental component summary (PCS and MCS) scores, EuroQol (EQ) Visual Analogue Scale (VAS), and EQ-5D-5L. **PCS, MCS, and EQ-VAS scores were assessed on a scale of 0–100 and EQ-5D-5L on a scale of 0–1, where higher scores meant better QoL.**

RESULTS

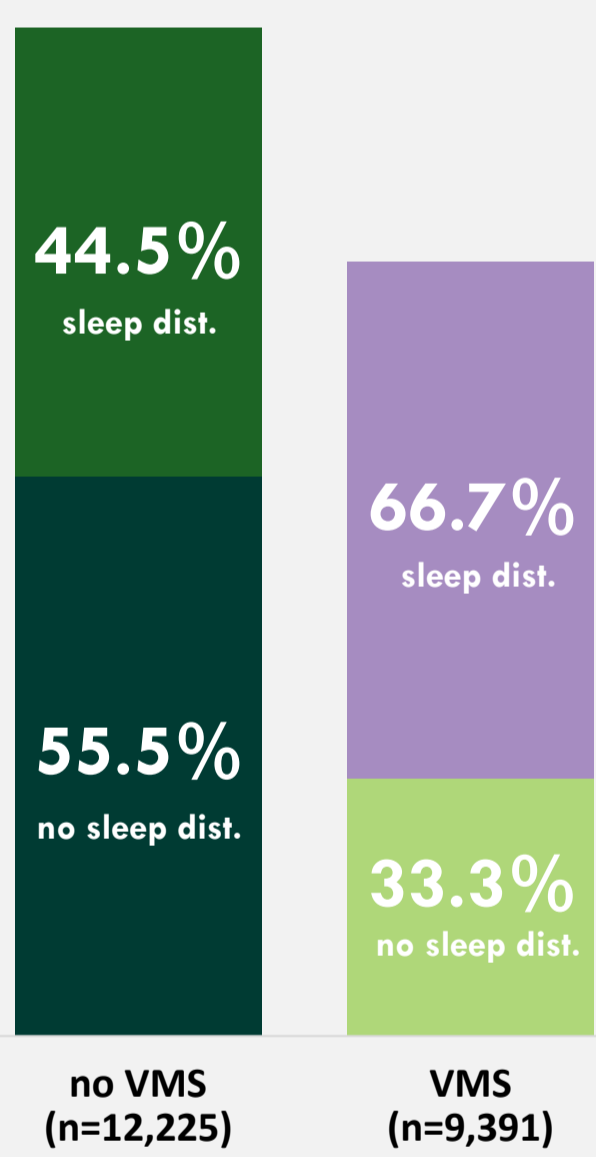


Figure 1. Study population

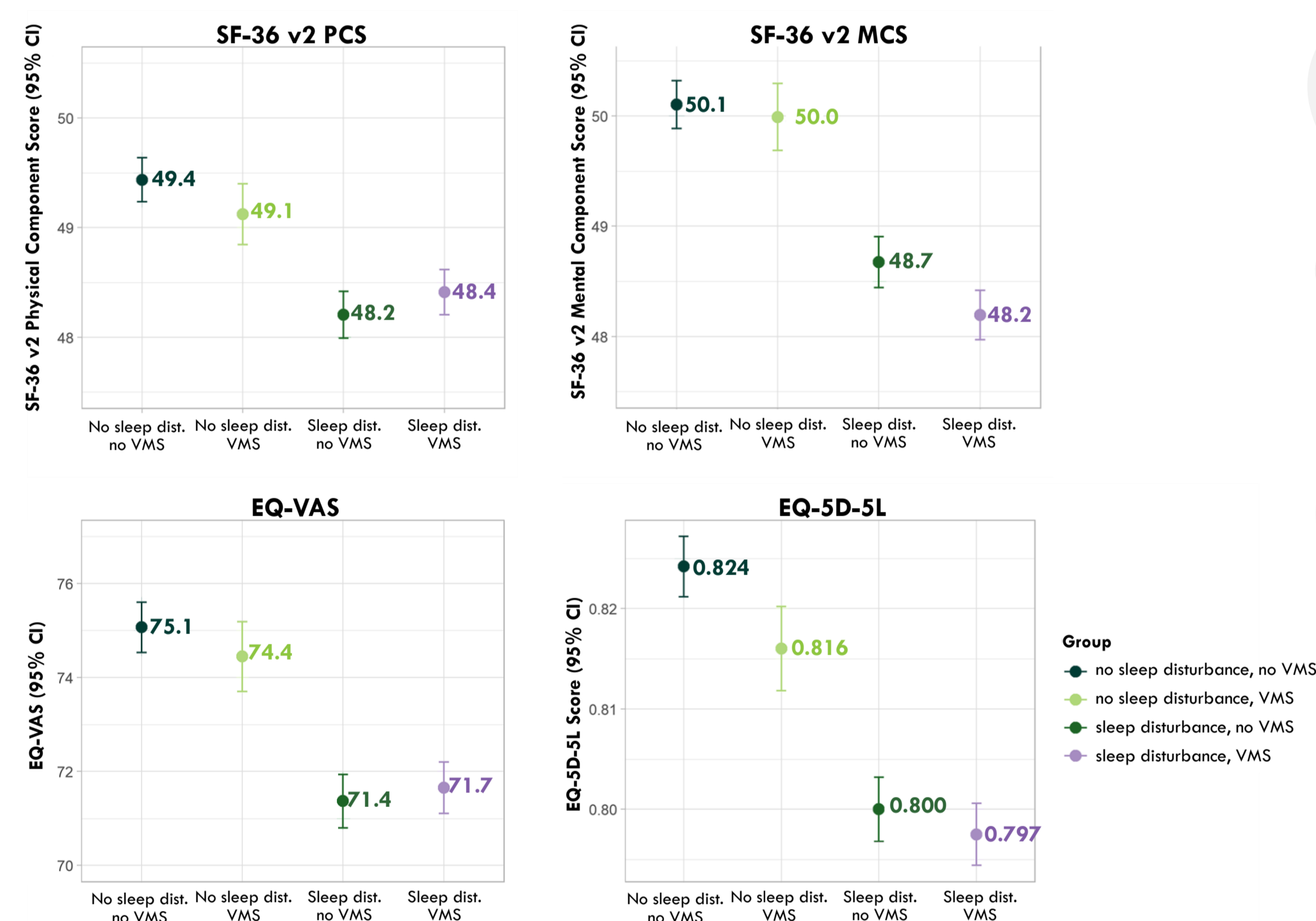
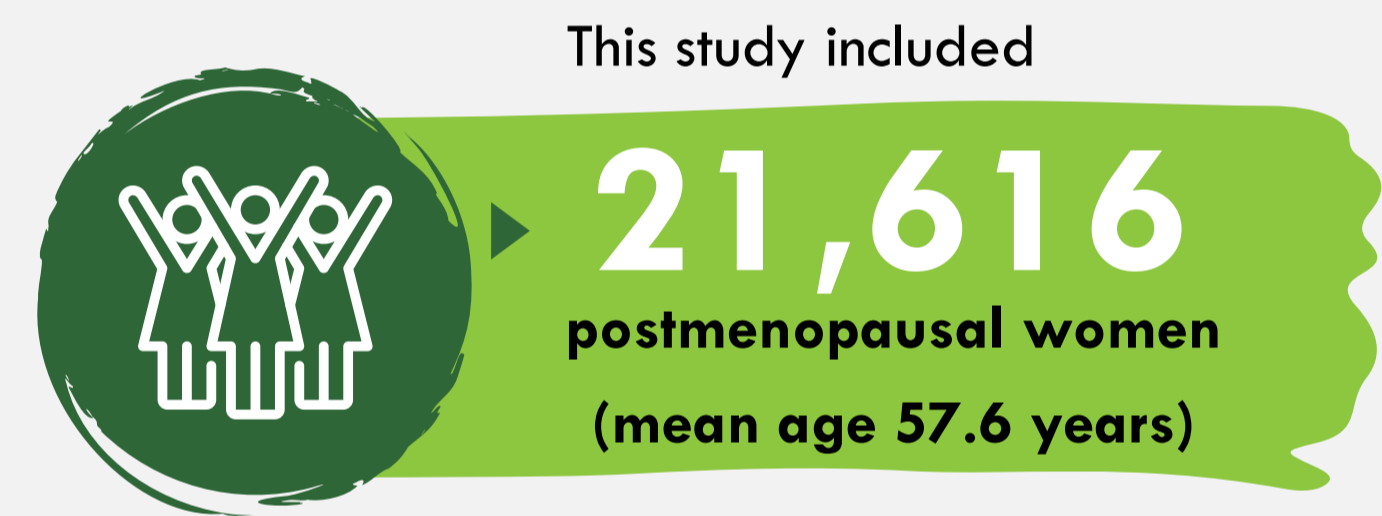


Figure 2. Marginal mean scores for PCS, MCS, EQ-VAS, and EQ-5D-5L in postmenopausal women



In the past 12 months, 56.6% (n=12,225) experienced no VMS; of these, 44.5% (n=5,444) had sleep disturbance. Among those with VMS (43.4%, n=9,391), 66.7% (n=6,268) had sleep disturbance [Figure 1].

In multivariable analyses, compared with the reference group (no VMS and no sleep disturbance), **postmenopausal women with sleep disturbance had lower QoL scores regardless of VMS status for all four measures (all p<0.001)**. There were no significant differences in QoL between the reference group and postmenopausal women with VMS but no sleep disturbance for PCS, MCS, or EQ-VAS (all p>0.05); only EQ-5D-5L was significantly lower (p=0.001). Marginal means for all four measures are shown in Figure 2. Non-overlapping confidence intervals in this figure indicate statistically significant differences (p<0.05).

CONCLUSIONS

While sleep disturbance was more prevalent in postmenopausal women with VMS, almost half of those without VMS reported sleep disturbance.



Sleep disturbance was associated with lower QoL scores regardless of presence or absence of VMS.



QoL scores in women with **VMS but no sleep disturbance** did not differ from QoL scores in women with **neither VMS nor sleep disturbance**.



Findings were consistent across **all four analyzed patient-reported QoL measures**. However, the clinical relevance of these differences in postmenopausal women requires further evaluation.



These data demonstrate that **sleep disturbance is associated with lower QoL independently of VMS** and may be a bigger driver of QoL than VMS alone in postmenopausal women.

DISCLOSURES

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