

**Purpose** As psychiatric disorders are often associated with sleep disturbances, the PSQI was designed to evaluate overall sleep quality in these clinical populations. Each of the questionnaire's 19 self-reported items belongs to one of seven subcategories: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction. Five additional questions rated by the respondent's roommate or bed partner are included for clinical purposes and are not scored.

**Population for Testing** The developers' initial psychometric analysis of the instrument was conducted with individuals aged 24–83 years [1]. The questionnaire has been validated with a variety of clinical populations, including: patients with major depressive disorder, disorders of initiating and maintaining sleep, disorders of excessive somnolence, cancer [2], and fibromyalgia [3].

**Administration** A self-report, pencil-and-paper measure, the instrument should require between 5 and 10 min for completion.

**Reliability and Validity** Though there have been a variety of studies assessing the psychometric properties of the scale, the developers'

initial evaluation [1] found an internal reliability of  $\alpha = .83$ , a test–retest reliability of .85 for the global scale, a sensitivity of 89.6%, and a specificity of 86.5%.

**Obtaining a Copy** A copy can be found in the original article published by developers [1].

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**Scoring** A detailed guide to scoring is included in the original published article [1]. The questionnaire consists of a combination of Likert-type and open-ended questions (later converted to scaled scores using provided guidelines). Respondents are asked to indicate how frequently they have experienced certain sleep difficulties over the past month and to rate their overall sleep quality. Scores for each question range from 0 to 3, with higher scores indicating more acute sleep disturbances. Developers have suggested a cut-off score of 5 for the global scale as it correctly identified 88.5% of the patient group in their validation study.

Subject's Initials \_\_\_\_\_ ID# \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ AM  
PM

### **PITTSBURGH SLEEP QUALITY INDEX**

#### **INSTRUCTIONS:**

The following questions relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of days and nights in the past month. Please answer all questions.

1. During the past month, what time have you usually gone to bed at night?

BED TIME \_\_\_\_\_

2. During the past month, how long (in minutes) has it usually taken you to fall asleep each night?

NUMBER OF MINUTES \_\_\_\_\_

3. During the past month, what time have you usually gotten up in the morning?

GETTING UP TIME \_\_\_\_\_

4. During the past month, how many hours of actual sleep did you get at night? (This may be different than the number of hours you spent in bed.)

HOURS OF SLEEP PER NIGHT \_\_\_\_\_

***For each of the remaining questions, check the one best response. Please answer all questions.***

5. During the past month, how often have you had trouble sleeping because you . . .

- a) Cannot get to sleep within 30 minutes

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
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- b) Wake up in the middle of the night or early morning

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
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- c) Have to get up to use the bathroom

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
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d) Cannot breathe comfortably

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
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e) Cough or snore loudly

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
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f) Feel too cold

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
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g) Feel too hot

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
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h) Had bad dreams

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
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i) Have pain

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
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j) Other reason(s), please describe \_\_\_\_\_

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How often during the past month have you had trouble sleeping because of this?

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
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6. During the past month, how would you rate your sleep quality overall?

Very good \_\_\_\_\_

Fairly good \_\_\_\_\_

Fairly bad \_\_\_\_\_

Very bad \_\_\_\_\_

7. During the past month, how often have you taken medicine to help you sleep (prescribed or "over the counter")?

Not during the past month \_\_\_\_\_ Less than once a week \_\_\_\_\_ Once or twice a week \_\_\_\_\_ Three or more times a week \_\_\_\_\_

8. During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?

Not during the past month \_\_\_\_\_ Less than once a week \_\_\_\_\_ Once or twice a week \_\_\_\_\_ Three or more times a week \_\_\_\_\_

9. During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done?

No problem at all \_\_\_\_\_

Only a very slight problem \_\_\_\_\_

Somewhat of a problem \_\_\_\_\_

A very big problem \_\_\_\_\_

10. Do you have a bed partner or room mate?

No bed partner or room mate \_\_\_\_\_

Partner/room mate in other room \_\_\_\_\_

Partner in same room, but not same bed \_\_\_\_\_

Partner in same bed \_\_\_\_\_

If you have a room mate or bed partner, ask him/her how often in the past month you have had . . .

- a) Loud snoring

Not during the past month \_\_\_\_\_ Less than once a week \_\_\_\_\_ Once or twice a week \_\_\_\_\_ Three or more times a week \_\_\_\_\_

- b) Long pauses between breaths while asleep

Not during the past month \_\_\_\_\_ Less than once a week \_\_\_\_\_ Once or twice a week \_\_\_\_\_ Three or more times a week \_\_\_\_\_

- c) Legs twitching or jerking while you sleep

Not during the past month \_\_\_\_\_ Less than once a week \_\_\_\_\_ Once or twice a week \_\_\_\_\_ Three or more times a week \_\_\_\_\_

d) Episodes of disorientation or confusion during sleep

Not during the past month \_\_\_\_\_ Less than once a week \_\_\_\_\_ Once or twice a week \_\_\_\_\_ Three or more times a week \_\_\_\_\_

e) Other restlessness while you sleep; please describe \_\_\_\_\_

Not during the past month \_\_\_\_\_ Less than once a week \_\_\_\_\_ Once or twice a week \_\_\_\_\_ Three or more times a week \_\_\_\_\_

This form may only be used for non-commercial education and research purposes. If you would like to use this instrument for commercial purposes or for commercially sponsored research, please contact the Office of Technology Management at the University of Pittsburgh at 412-648-2206 for licensing information.

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Buysse et al. [1].

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## References

1. Buysse, D. J., Reynolds, C. F., Charles, F., Monk, T. H., Berman, S. R., & Kupfer, D. J. (1989). The Pittsburgh sleep quality index: a new instrument for psychiatric practice and research. *Psychiatry Research*, *28*(2), 193–213.
2. Dudley, W. N. (2004). Psychometric evaluation of the Pittsburgh sleep quality index in cancer patients. *Journal of Pain and Symptom Management*, *27*(2), 140–148.
3. Osorio, C. D., Gallinaro, A. L., Lorenzi-Filho, G., & Lage, L. G. (2006). Sleep quality in patients with fibromyalgia using the Pittsburgh sleep quality index. *Journal of Rheumatology*, *33*(9), 1863–1865.

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## Representative Studies Using Scale

- Dolberg, O. T., Hirschmann, S., & Grunhaus, L. (1998). Melatonin for the treatment of sleep disturbances in major depressive disorder. *American Journal of Psychiatry*, *155*, 1119–1121.
- Jennings, J. R., Muldoon, M. F., Hall, M., Buysse, D. J., & Manuck, S. B. (2007). Self-reported sleep quality is associated with the metabolic structure. *Sleep*, *30*(2), 219–223.