

# Subjective sleep quality and association with depression syndrome, chronic disease and health-related physical fitness in middle-aged and elderly

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## Abstract

### **Background**

Sleep quality as a complex phenomenon is difficult to define and measure objectively, multiple factors are related to sleep quality, such as age, lifestyle, physical activity, and physical fitness, are prominent in the older adult population. The aim of the present study was to evaluate subjective sleep quality using the Pittsburgh Sleep Quality Index (PSQI) and associate with the health-related physical fitness factors, depression symptom, and chronic disease numbers in middle-aged and elderly.

### **Methods**

We enrolled a total of 283 participants with middle-aged and elderly from a rehabilitation clinic or health examination department. The PSQI was used to evaluate sleep quality. The health-related fitness assessment includes anthropometric and physical fitness. Depressive symptoms were measured by the Center for Epidemiologic Studies Depression Scale (CES-D) short form. Data were analyzed with SPSS 18.0, descriptive statistics and logistic regression analysis were performed for analysis.

### **Results**

Overall, 27.9% of the participants in this study demonstrated poor sleep quality (PSQI score > 5), 10.2% of the study participants frequently used sleep medication to help them fall asleep, 6.0% reported having significant depressive symptoms (CES-D  $\geq$  10). The results have three major findings (1) depression symptom, number of chronic disease, self-rated health and arthritis were significantly associated with poor sleep quality, (2) age was associated with sleep disturbance, (3) two-min step was associated with longer sleep latency. This results confirmed two-min step was associated with longer sleep latency among the health-related physical fitness items.

### **Conclusion**

Our studies found that depressive syndromes, chronic disease numbers, poor self-rated health status and arthritis were the main risk factors that influenced subjective sleep quality.

### Full Text

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