Sleep quality and self-care behaviors of adults with heart failure: a systematic review

Authors:
V Spedale¹, S Di Mauro², A Attanasio², R Alvaro¹, E Vellone¹, D Ausili², ¹University of Rome Tor Vergata, Department of Biomedicine and Prevention - Rome - Italy, ²University of Milan-Bicocca, Department of Medicine and Surgery - Milan - Italy,

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Background
Sleep disturbance is one of the most common symptoms among heart failure (HF) patients. Sleep disturbance reduces quality of life and leads to higher rates of mortality. It may affect the ability of patients to perform adequate self-care behaviors. Although some research evaluated the association between sleep quality and HF self-care, a synthesis of the most recent available evidence is missing.

Purpose
The purpose of this systematic review was to assess the association between sleep quality and self-care in people with HF.

Methods
The PRISMA methodology was used to review current knowledge. CINAHL, MEDLINE, SCOPUS and PSYCOINFO were searched. Observational studies, randomized control trials, case control studies and cohort studies were considered. Two independent researchers assessed the quality of the studies using the Joanna Briggs Institute’s Critical Appraisal Tools.

Results
Six papers were finally included. A significant association between the presence of sleep disturbance and HF self-care was found in one study. Another one didn’t find association between sleep disturbance and HF self-care. Two studies associated poor sleep quality to inadequate medication adherence. Three studies assessed specifically excessive daytime sleepiness (EDS). Two of these found associations between EDS and inadequate medication adherence. The last one found that EDS predicted inadequate HF self-care. In all the included studies, other factors were found to be predictors of inadequate self-care behaviors along with sleep quality, the presence of sleep disturbance or ESD. These factors were: age, comorbidity, cognitive impairment, depression, poor health perception. How these factors interact each other predicting heart failure self-care remains unclear.

Conclusions
Poor sleep quality, the presence of sleep disturbance and EDS seem to be predictors of inadequate self-care in HF patients. However, studies are few and the majority of them focused on partial aspects of sleep quality (i.e. EDS) or partial aspects of self-care (i.e. medication adherence). Furthermore, the mechanism underlying the effect of sleep quality, sleep disturbance and EDS on HF self-care appears unclear. Future interaction analyses considering depression, cognitive impairment and health perception could be useful to clarify the effect of sleep quality on self-care behaviors of adults with HF.