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Fatigue Domains Correlate Sleep Quality in Taiwanese People With Heart Failure

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Purpose:

Fatigue and poor sleep have been viewed as main symptoms of heart failure and can restrict physical tolerance to carry out usual daily activities. Fatigue has been associated with poor sleep quality, however, only a few studies have been examined different domains of fatigue with sleep quality in Taiwanese patients with heart failure. The purpose of this study was to examine the relationship between fatigue domains and sleep quality in Taiwanese patients with heart failure.

Methods:

A cross-sectional research design was used. One hundred and one participants were recruited from the cardiology outpatient departments of a medical center located in Southern Taiwan. Instruments included the Multidimensional Assessment of Fatigue Scale and Pittsburgh Sleep Quality Index (PSQI). Data analyses included t-tests, one-way ANOVA, and Pearson correlation analysis to examine the relationship between variables and multiple linear regression analysis to identify the major determinants of sleep quality in patients with heart failure.

Results:

The mean age of the participants was 66.5 ± 12.3 years old, and the mean duration of heart failure was 6.87 years. Approximately 43% reported fatigue, while 47% experienced poor sleep quality. Participants who did do exercise ($t = -2.90, p < .01$) had poorer sleep quality than those who did not. The PSQI global score was significantly correlated with the global fatigue score ($r = .24, p < .05$), fatigue severity ($r = .23, p < .05$), and fatigue distress ($r = .23, p < .05$) but not fatigue timing, indicating the more severe and distress the fatigue, the poorer the sleep quality. Multiple linear regression analysis showed fatigue domains were not significant determinants of sleep quality. However, global fatigue score and doing exercise accounted for 12.4% of adjusted variance in sleep quality among Taiwanese patients with heart failure.

Conclusion:

The study found that only fatigue severity and fatigue distress domains, but not fatigue timing, significantly associated with sleep quality. The reason for the participants to engage in doing exercise might be that they tried to use it to improve sleep quality. Future interventions aimed to reduce the perception of fatigue distress and severity should be designed in order to promote sleep quality of the patients with heart failure.

Title:

Fatigue Domains Correlate Sleep Quality in Taiwanese People With Heart Failure

Keywords:

Fatigue, Heart failure and Sleep quality

References:

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Abstract Summary:

The study found that fatigue severity and fatigue distress domains, but not fatigue timing, were significantly associated with sleep quality. Nurse researchers can use our findings as references further exploring the cause and effect of sleep and fatigue domains in patients with heart failure.

Content Outline:

Introduction

1. Only few studies have been examined different domains of fatigue with sleep quality in Taiwanese patients with heart failure.

2. The purpose of this study was to examine the relationship between fatigue domains and sleep quality in Taiwanese patients with heart failure.

Methods:

1. A cross-sectional research design was used.

2. One hundred and one participants were recruited from the cardiology outpatient departments of a medical center located in Southern Taiwan.

3. Instruments included the Multidimensional Assessment of Fatigue Scale and Pittsburgh Sleep Quality Index.

4. Multiple linear regression analysis to identify the major determinants of sleep quality in patients with heart failure.

Results

1. Approximately 43% reported fatigue, while 47% experienced poor sleep quality.

2. Correlates of poor sleep quality included doing exercise, global fatigue score, fatigue severity, and fatigue distress.

3. Multiple linear regression analysis showed global fatigue score and doing exercise accounted for 12.4% of adjusted variance in sleep quality among Taiwanese patients with heart failure.

Conclusion: The study found that only fatigue severity and fatigue distress domains, but not fatigue timing, significantly associated with sleep quality.

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