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PSYCHOLOGICAL DISTRESS AND SLEEP QUALITY IN PATIENTS WITH CORONARY HEART DISEASE: A DOMINANCE ANALYSIS

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Introduction: Mounting research has demonstrated that poor sleep quality is common in patients with coronary heart disease (CHD), and it is significantly associated with psychological distress. However, few studies have examined and compare various types of psychological distress in a single study. This study investigated the relative importance of several common types of psychological distress in relation to sleep quality among CHD patients.

Methods: 148 CHD patients who participated in community-based cardiac rehabilitation completed measures of sleep quality, perceived stress, negative mood, worry, anxiety, loneliness, and trait anger. First, dominance analysis was used to establish the relative importance of different types of psychological distress on sleep quality. Second, hierarchical regression was conducted to estimate the unique variance that each distress type contributed to poor sleep quality.

Results: Dominance analysis suggested that according to the general dominance scores of distress scales, their relative importance in descending order was: worry, anxiety, stress, loneliness, negative mood and trait anger. In block 1 of the regression analysis, covariates (age, gender, education level and history of CABG and PTCA) accounted for a non-significant 3.0% of the variance in sleep quality, $F(5,142) = .87, p = .50$. In block 2, worry accounted for an additional 23.3% of the variance, $\Delta F(1,141) = 44.82, p < .001$. In block 3, anxiety accounted for an additional 3.5% of variance, $\Delta F(1,140) = 7.01, p < .01$. In block 4, loneliness, negative mood, stress, and trait anger accounted for a non-significant 0.5% of variance in sleep quality, $\Delta F(1,136) = .25, p = .91$.

Conclusions: The findings suggest the potential implications of worry and anxiety in poor sleep quality in CHD patients.

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