

Serving Two Masters: job characteristics as predictors of psychosocial and psychophysiological responses to stress in physicians and nurses in managerial positions

Results:

Objectives: 1) compare managers/subordinates on stress and job characteristics, 2) test the Demand Control (DC) and Effort-Reward Imbalance (ERI) occupational stress models, 3) pilot-test the ecological momentary assessment (EMA) of stress and job characteristics with the ambulatory measure of physiological stress indicators.

1. Hierarchical position is important in terms of stress and job characteristics. The “head doctors/nurses” show stress vulnerability, especially in autonomic arousal, related to work characteristics (demand, control and reward). They showed high Overcommitment, a style of coping that has negative effects on well being and work.

2. The DC model did not predict job stress by questionnaire or self-report real time data, but predicted heart rate/systolic blood pressure. The *ERI model* explained job stress better by questionnaire and real time data, predicting higher stress. Reward was particularly significant for systolic blood pressure. The study of positive and negative emotions at work was an innovative contribution. Demand and Control were related to Negative Affect, and Strain predicted feeling energetic and alert. Organizational interventions which increase control and reward will reduce negative emotional responses and increase positive affect, with positive outcomes on health and work.

3. Our study has contributed two important *methodological aspects*. 1) *Measure stress* with a variety of indicators. The combination of self-report and objective measures, as well as longitudinal evaluations, should be used in future studies of job stress. 2) Pioneer the use of *EMA* in Portugal. This innovative methodology allows the study of links between job characteristics and psychological/biological responses.

Published Work:

- McIntyre, S.E., McIntyre, T., Johnston, D. (in preparation). Stress and Job characteristics of manager and subordinate physicians and nurses, using ecological momentary assessment and ambulatory blood pressure.
- McIntyre, S. E., McIntyre, T. M., Johnston, D., & Jones, M. (2006). The relationship between job characteristics and stress responses in health professionals: using real-time data. In S. E. McIntyre & J. Houdmont (Eds.). *Occupational Health Psychology: key papers of the European Academy of Occupational Health Psychology, 7th Edition*. Maia: ISMAI Publications. ISBN 972-9048-21-5

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