The Impact of Protected Sleep Period for Internal Medicine Interns on Overnight Call on Depression, Burnout, and Empathy

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Abstract

Purpose: We examined whether interns scheduled for a protected sleep period during overnight call would have more improved end-of-rotation assessments of burnout, depression and empathy scores relative to interns without protected periods while on call, and whether amount of sleep obtained on call predicted end-of-rotation assessments.

Methods: Randomized controlled trial at the Philadelphia VA Medical Center (PVAMC) Medical Service and Oncology Unit of the Hospital of the University of Pennsylvania (HUP) in AY09-10. Participants were internal medicine interns at HUP (n = 59) or at PVAMC (n=87). 4-week blocks were randomly assigned to either a standard schedule (extended duty overnight shifts of up to 30 hours), or a protected sleep period from 00:30-05:30. Participants wore wrist actigraphs. At the beginning and end of the rotations they completed the Beck Depression Inventory (BDI-II), Maslach Burnout Inventory (MBI-HSS), and Interpersonal Reactivity Index (IRI).

Results: There were no significant differences between groups when comparing end-of-rotation BDI-II, MBI-HSS, or IRI scores at either the PVAMC or HUP (P's > .05).
Amount of sleep while on call significantly predicted lower MBI-Emotional Exhaustion (P < .01), MBI-Depersonalization (P < .01), and IRI-Personal Distress (P < .01) at PVAMC, and higher IRI-Perspective Taking (P < .01) at HUP.

Conclusions: A protected sleep period produced few consistent improvements in depression, burnout or empathy, though depression was already low at baseline. Possibly the dose of protected time was too small to impact these affective states, or maybe sleep is not directly causally related to these scores.