The effectiveness of healthy meals at work on reaction time, mood and dietary intake: a randomised cross-over study in daytime and shift workers at an university hospital - DTU Orbit (03/01/2019)

The effectiveness of healthy meals at work on reaction time, mood and dietary intake: a randomised cross-over study in daytime and shift workers at an university hospital

Our dietary habits affect both cognitive performance and mood. The aim of the study was to examine the effect of increased availability of healthy meals and water at work on healthcare staff. The study used an 8-week randomised cross-over design. A total of sixty physicians, nurses and nursing assistants, including sixteen working on shifts, were recruited. The participants received a self-selected keyhole-labelled (Nordic nutrition label) lunch, snack and bottled water during each shift throughout the intervention period. Reaction time (Go/No-Go test), mood-related scores (POMS) and dietary intake were assessed at run-in, and at the end of the intervention and the control periods. The intake of fat (P=0.030) and PUFA (P=0.003) was lower, and the intake of carbohydrate (P=0.008), dietary fibre (P=0.031) and water (P<0.001) was greater in the intervention period than in the control period. The intervention had no effect on reaction time or any of the mood-related scores in the group as a whole. In shift-working participants, the intervention period resulted in a 31.1 % lower Fatigue-Inertia Score (P=0.003), a 15.3 % higher Vigour-Activity Score (P=0.041) and a 42.7 % lower Total Mood Disturbance Score (P=0.017), whereas the only dietary component that significantly improved was water intake (P=0.034), when compared with the control period. Providing healthy meals, snacks and water during working hours seems to be an effective way of improving employees’ dietary intake. Moreover, increased intake of water may be associated with beneficial effects on fatigue, vigour and total mood in shift-working healthcare staff.

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