

ABSTRACT BOOK

Healthy People. Healthy Planet.



Abstract book for the ISBNPA 2019 Annual Meeting in Prague

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Note about the content of the abstract book

The organizing and abstract review committees have not made any edits to the content of the abstract. The abstracts are, therefore, presented as they were submitted by the authors.

THIS IS THE FINAL VERSION OF THE ABSTRACT BOOK

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SO05, SO05.4

The effect of work shift on daily activity behaviors and dietary pattern in crane operators

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Other

Objective: Shift work is a well-known risk factor for several non-communicable diseases. However, little is known about how shift work affects daily activity behaviors and dietary pattern. The aim of this study was to test the effect of work shift on time spent sleeping, in sedentary behavior and physical activity and on dietary pattern. **Methods:** Forty-three male crane operators wore activPAL and Garmin Forerunner (3 shifts) for up to five consecutive working days to obtain objective measure of sitting/lying time and heart rate. Sleep time and dietary pattern were self-reported using a diary. One-way ANOVA with post hoc t-test (and Kruskal-Wallis test for non-normally distributed data) was used to determine differences between daily activity behaviors test results. Dietary pattern was analysed according to the national criteria for unhealthy dietary pattern.

Results: The afternoon shift group spent significantly ($p < 0.05$) more time sleeping and less time in sedentary behavior ($458 \pm \text{smn}$; 56 mins/day and $604 \pm \text{smn}$; 86 mins/day, respectively) than the morning ($359 \pm \text{smn}$; 79 mins/day and $722 \pm \text{smn}$; 107 mins/day) and the night shift group ($309 \pm \text{smn}$; 58 mins/day and $714 \pm \text{smn}$; 58 mins/day). Average time spent in moderate to vigorous physical activity did not differ ($p > 0.05$). Reviewing the dietary patterns, least favorable results appeared to be when working in morning shift, with the highest percentage of those who eat 2 or less meals daily (33 %), no breakfast (27 %), eating fried food (33 %) and red meat (67 %) often.

Conclusions: Our results show that specific work shift affects daily activity behaviors and dietary pattern. The most favorable behaviors, with the lowest sedentary time and the highest sleep time, were found in the afternoon shift group. This relationship is in line with previous findings that sleep restriction leads to more sedentary behavior. Reviewing food diaries revealed less healthy dietary pattern in the morning group, compared to the others. Shift workers should receive additional attention in healthy lifestyle promotion activities.