Gédor M, Bourgkard E, Dziurla M, Ribet C, Hédelin G, Boini S

Relationship between different profiles of Night-Shift work exposure and Health-Related Quality of Life

6th International Conference Wellbeing at Work 2022, June 13-15, 2022, Virtual congress

ABSTRACT

OBJECTIVE - In France, about 40 % of employees work non-standard schedules. Among these, night work and shift work are of particular interest because of their deleterious effects on health. Furthermore, Health Related Quality of Life (HRQoL) defined as perceived wellbeing in physical, mental, and social domains of health, is a strong predictor of health events. The objective of this study was to evaluate the association between Night /Shift work and Health Related Quality of Life (HRQoL) by differentiating different profiles of night and shift work exposure. METHODS - This study was conducted among 11,629 workers included between 2012 and 2013 in the French random population-based Constances cohort who had completed the follow-up questionnaire in 2014. HRQoL was measured in 2014 using the standardized SF-12 questionnaire. The corresponding outcomes consisted in two component summary scores: PCS for physical component summary and MCS for mental component summary, with higher scores indicating better HRQoL. Four profiles of Night/Shift work were defined at inclusion: (1) permanent night workers, (2) rotating night-shift workers, (3) rotating day-shift workers (4) former night /shift workers (daytime workers with past night/shift work). Multiple linear regression models were performed to assess the associations between HRQOL outcomes and these four exposure groups, in comparison to daytime workers without any night/shift work during their entire career (reference group). RESULTS - Among the four exposure groups, the highest mean PCS was found in rotating night-shift workers (51.9 ± 8.3) and the highest mean MCS in permanent night workers (48.2 ± 6.6). The lowest mean PCS and MCS were both found in rotating day-shift workers (49.9 ± 9.2 and 46.6 ± 7.2, respectively). PCS score did not significantly differ between daytime workers and permanent night workers (β [95%CI]: -0.70 [-2.00; 0.60]) or rotating night-shift workers (β [95%CI]: 0.58 [-0.58; 1.73]), respectively. Former night/shift workers (β [95%CI]: -0.92 [-1.55; -0.29], p=0.004) and rotating day-shift workers (β [95%CI]: -1.14 [-1.61; -0.67], p<0.001) had a statistically significant lower PCS than daytime workers. Only permanent night workers presented a statistically significant higher MCS (β [95%CI]: 1.16 [0.002; 2.33], p=0.05), compared to daytime workers. No difference in MCS was observed for all other exposure groups. CONCLUSION - Former night/shift workers had lower physical perceived health, contrary to permanent and rotating night-shift workers who had similar HRQoL levels than the daytime workers, suggesting the well-known healthy worker effect. Yet, not only night workers, but also daytime workers who had stopped night/shift work (former) still need regular and specific follow-up focusing on the physical components of health. Other non-standard working schedules such as rotating day-shift workers should also benefit from such monitoring.

KEYWORDS: -