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Effort-reward imbalance and long-term benzodiazepine use: longitudinal findings from the CONSTANCES cohort

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ABSTRACT

OBJECTIVES - To examine the association between effort-reward imbalance and incident long-term benzodiazepine use (LTBU). **METHODS** - We included 31 077 employed participants enrolled in the French population-based CONSTANCES cohort between 2012 and 2014 who had not undergone LTBU in the 2 years before enrolment. LTBU was examined using drug reimbursement administrative databases. The effort-reward imbalance was calculated in quartiles. We computed ORs (95% CIs) for LTBU according to effort-reward imbalance over a 2-year follow-up period. We adjusted for age, gender, education, occupational grade, income, marital status, tobacco smoking, risk of alcohol use disorder, depressive symptoms and self-rated health. **RESULTS** - Over the 2-year follow-up, 294 (0.9%) participants experienced incident LTBU. In the univariable analysis, effort-reward imbalance was associated with subsequent LTBU with ORs of 1.79 (95% CI 1.23 to 2.62) and 2.73 (95% CI 1.89 to 3.95) for the third and fourth quartiles, respectively, compared with the first quartile. There was no interaction between effort-reward imbalance and any of the considered variables other than tobacco smoking ($p=0.033$). The association remained significant in both smokers and non-smokers, with higher odds for smokers ($p=0.031$). In the fully adjusted model, the association remained significant for the third and fourth quartiles, with ORs of 1.74 (95% CI 1.17 to 2.57) and 2.18 (95% CI 1.50 to 3.16), respectively. These associations were dose dependent (p for trend <0.001). **CONCLUSIONS** - Effort-reward imbalance was linked with incident LTBU over a 2-year follow-up period after adjustment for sociodemographic and health-related factors. Thus, screening and prevention of the risk of LTBU should be systematised among individuals experiencing effort-reward imbalance, with special attention paid to smokers.

KEYWORDS: Addictive behaviour/addiction; Depression; Drug misuse; Longitudinal studies; Occupational health

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