

Introduction

Sickness absence is predicted by work demands (low) work control, physical workload, sleep, fatigue. Mostly, however, these factors are studied separate from the others and in cross-sectional designs. In the present work we enter them together in the same analysis to predict variation sickness absence across 5 points of measurement, with 2 years in-between.

The purpose of the present study was to predict covariation across 5 points of measurement of sickness absence during the last year (any absence vs none) from variation in the variables above. We also looked at the association of trends across the 4 first measurements between the predictors and sickness absence on measurement 5. These approaches have never been attempted before to the best of our knowledge. In addition, we investigated whether gender would interact with any of the predictors

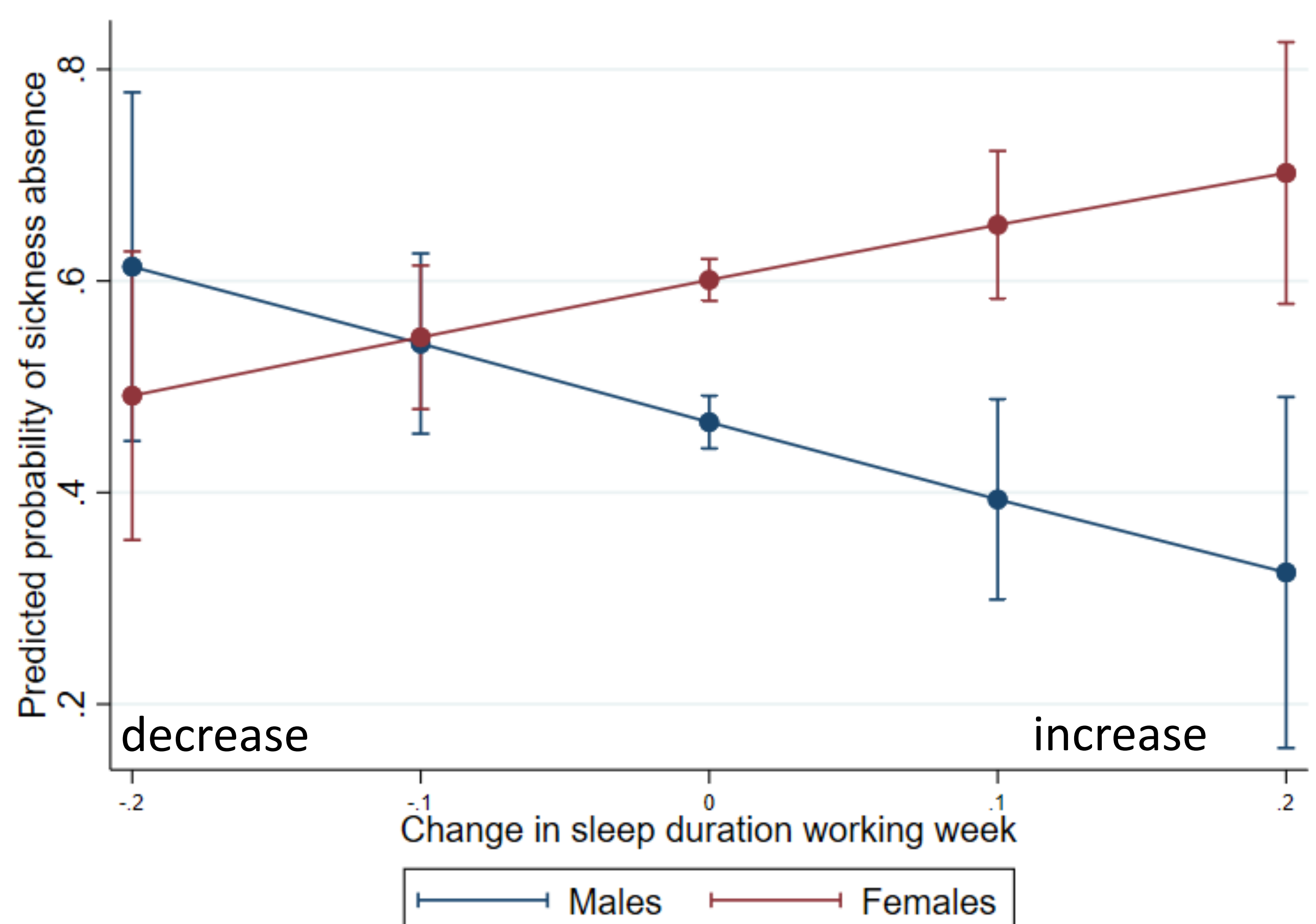
A total of 1888 individuals participated across 5 biannual points of measurement. Data was analyzed using mixed model logistic regression.

Results

The results (left) show that the main predictors of sickness absence across the 5 points of measurement were lack of job control, fatigue, sleep duration during days off, sleep problems, and physical work load. Notably, work demands was not a significant predictor, and long weekend sleep seems to indicate increased sickness absence.

The figure (right) shows a significant interaction sex*change in working week sleep duration across the years. Women increase their absence with increasing working week sleep, while men decrease it. No other interactions were significant.

	OR, 95% CI
Female (vs male)	2.05 (1.63;2.52)
Work demands	1.01 (0.88;1.16)
Low Work control	1.36 (1.16;1.61)
Physical workload	1.15 (1.07;1.24)
Sleep problems	1.19 (1.10;1.30)
Sleep duration work	0.97 (0.88;1.07)
Sleep dur days off	1.19 (1.10;1.29)
Fatigue	1.22 (1.14;1.32)



Conclusions

The present study has shown that, in addition to decreased subjective health, increases in lack of work control, fatigue, sleep problems, sleep duration during days off, and physical workload, are associated with increased sickness absence across 5 biannual measurements. Importantly, all predictors are analyzed simultaneously and, therefore, adjusted for. These variables may be useful predictors of upcoming sickness absence, as well as targets for intervention. Particularly, the role of sleep duration during days off deserves further work.

