Finnish Institute of Occupational Health

EMPLOYEE WELLBEING IN HEALTHCARE: THE EFFECTS OF SHIFT SCHEDULE EVALUATION TOOL WITH ERGONOMICS RECOMMENDATIONS

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Objective

The FIOH has developed "Working Time Traffic Light recommendations" that are integrated to Shift Schedule Evaluation Tool (SSET) in a scheduling software Titania® (CGI Finland Ltd).

We aimed to investigate whether shift planner's use of the SSET has an impact on the healthcare workers' wellbeing.

Results

Psychological distress among individual employees decreased in the IG.

No association was found between the use of the tool and employee wellbeing at the shift planning unit level.

	Intervention Group (IG) participants		Control Group (CG) participants		RR	95% CI
	N	% of outcome	N	% of outcome		
Poor perceived health	3,634	4.8	3,327	5.6	0.87	0.71–1.06
Poor work ability	3,629	8.0	3,324	8.9	0.89	0.76–1.04
Short sleep (≤6.5h)	3,461	13.8	3,196	13.4	1.03	0.91–1.17
Sleep difficulties	3,607	58.5	3,302	59.2	0.99	0.95–1.03
Psychological distress	3,636	25.9	3,330	28.2	0.92	0.85–0.99

Methods

Finnish Public Sector study surveys were combined into 4 cohorts: 1) hospital districts 2015 + 2017 (n=1943), 2) municipalities 2016 + 2018 (n=5291), 3) hospital districts 2017 + 2019 (n=1966), and 4) municipalities 2018 + 2020 (n=4311). Data from the Titania® shift scheduling software defined the use of the SSET in the year prior to the survey wave.

Multilevel mixed-effects logistic regression was used to calculate a propensity score for each participant and logistic regression was applied at the shift planning unit-level. The propensity score represented the probability of the intervention, i.e., use (intervention group, IG) or no use (control group, CG) of the SSET by the shift planner. The regression model included several demographic and lifestyle factors and working hour characteristics as covariates.

A geneneralized linear model was used to obtain RR´s and 95%CI´s to compare the well-being outcomes (*sleep duration, sleep difficulties, psychological distress, perceived health, and work ability*) between the IG and the CG.

Conclusion

Using the SSET was associated with lower psychological distress at the individual level. More rigorous use of the SSET tool may be needed to achieve significant benefits for wellbeing, particularly at unit level.

Read more:
https://pubmed.ncbi.nlm.nih.gov/40939354/

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