



Doctors' work hours and work time control: Their impact on sleep, health, work-family balance, patient care and thoughts about work.

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Background

Doctor's work schedules are an important determinant of doctors' own wellbeing and that of their patients.

Method

A cross-sectional survey was conducted in which a representative sample of doctors in Sweden (N = 1534) completed a questionnaire about working conditions, wellbeing and patient care (response rate 53.1%).

Regression analyses examined the associations between working time parameters and outcomes, adjusting for age, sex, job grade and medical specialty. Separate analyses also considered whether work time control (WTC) buffered the negative effects of demanding work schedules, by examining the interactions between WTC and some of the other working time parameters.

Results

Working a lot of unpaid overtime and lacking WTC were both associated with:

- poorer health,
- poorer work-family balance,
- more negative attitudes towards work,
- poorer sleep,
- more fatigue,
- poorer patient care. (See table 1)

Having WTC attenuated positive associations between:

- frequency of night duties and frequency of short sleeps (Figure 1),
- frequency of unpaid overtime and frequency of short sleeps (Figure 2),
- frequency of short inter-shift intervals and fatigue (Figure 3),
- frequency of unpaid overtime and fatigue (Figure 4).

Conclusion

The findings highlight the importance of matching doctors' work hours to individual needs and preferences. Optimizing the balance between schedule flexibility and patient needs could enhance doctors' health, patient care and staff turnover.

Table 1. Regression of well-being, attitudes, sleep, fatigue and patient care outcomes on working time parameters, adjusting for age, sex, job grade & medical specialty (standardized regression weights, β).

		Wellbeing			Attitudes	Sleep & Fatigue			Patient care	
		Stress	Burnout	Work-family	Thoughts of changing	Disturbed sleep	<6 hrs. sleep	Fatigue	Workload risks mal-practice	Reported for mal-practice
Long work hours	Weekly hours	.027	-.051	.082	-.016	-.001	.043	.005	.018	.021 *
	Unpaid 'overtime'	.167 ***	.164 ***	.148 ***	.075	.119**	.112**	.145**	.193***	.083
Recovery	Long shifts	.091	.075	.070	.090	.093	.100	.059	.122 *	-.176
	Quick returns	.063	.015	.055	-.062	.011	.125 **	.078	-.003	.187 ***
On-call work	Weekends on-call	-.010	-.041	.156 *	-.061	-.063	-.033	-.079	-.036	-.020
	Night duties	-.010	-.034	-.003	.038	-.008	.010	.016	.048	-.185
Flexibility	Work time control	.122 **	.182 ***	.198 ***	.163 ***	.139***	.045	.146***	.140***	-.112

* = $p < .05$, ** = $p < .01$, *** = $p < .001$

Figure 1. The interaction between work time control (WTC) and frequency of night shifts in the prediction of short sleeps (<6 hours).

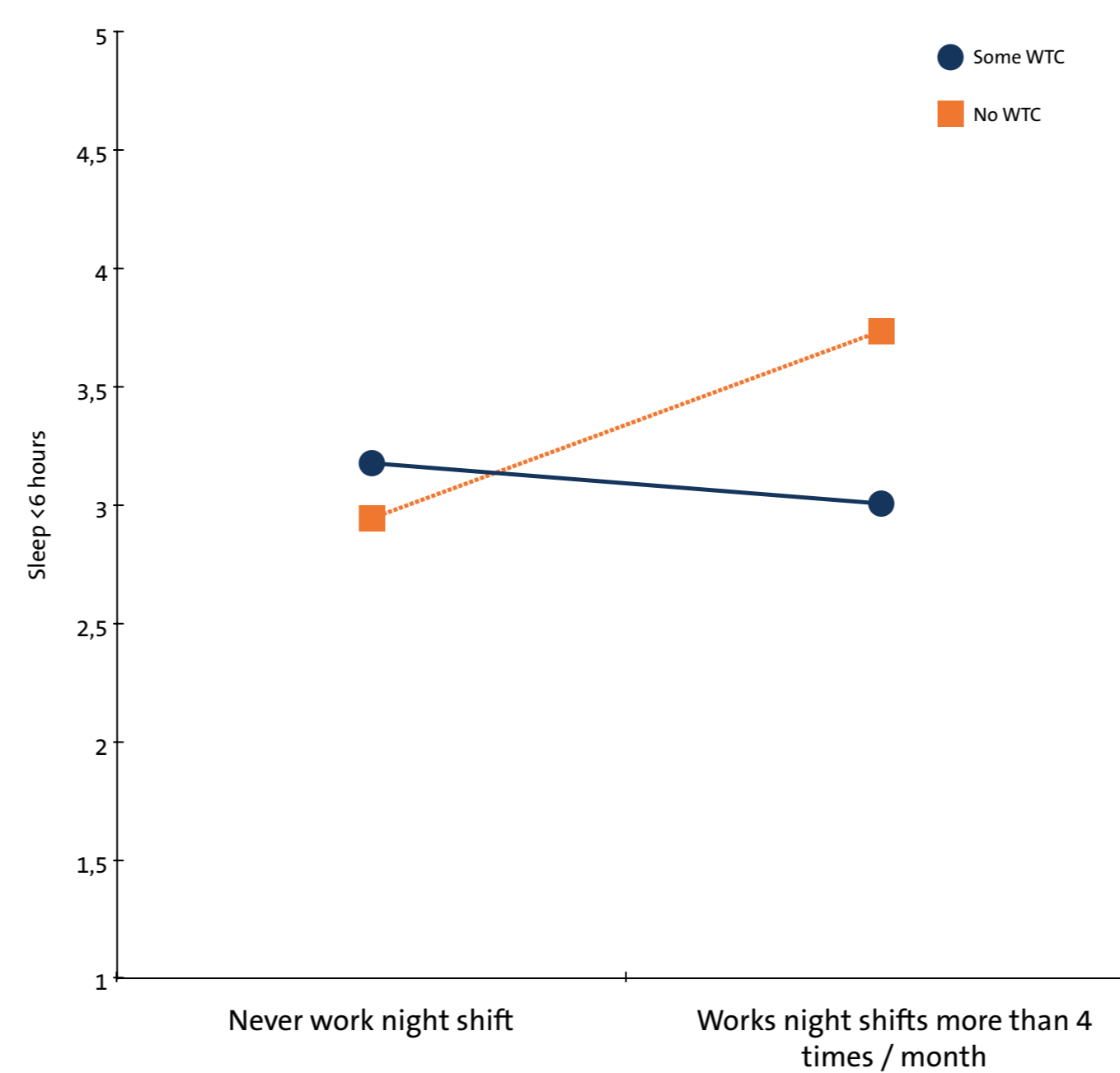


Figure 2. The interaction between work time control (WTC) and amount of unpaid overtime in the prediction of short sleeps (<6 hours).

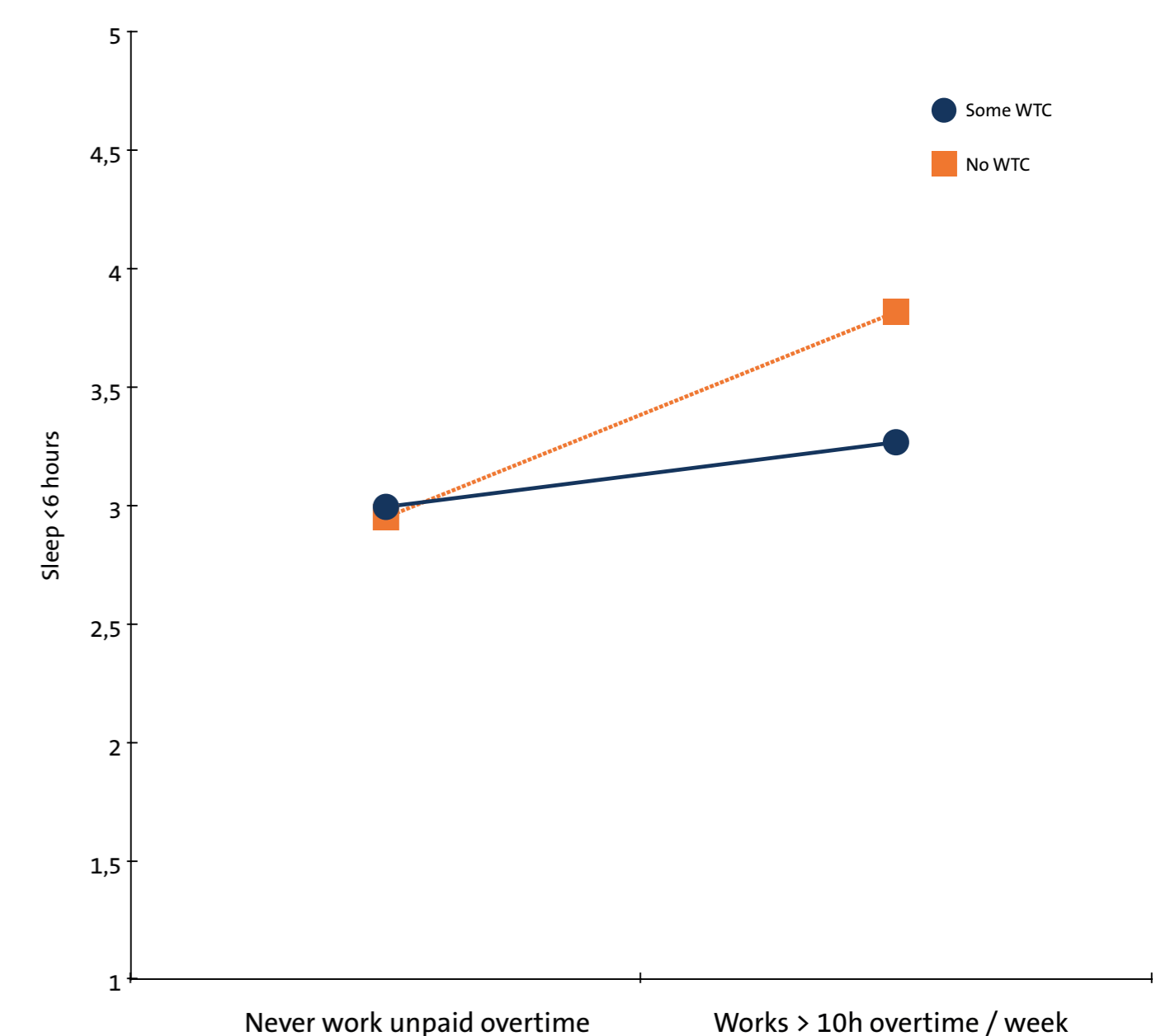


Figure 3. The interaction between work time control (WTC) and frequency of quick returns (<11 hours) in the prediction of fatigue.

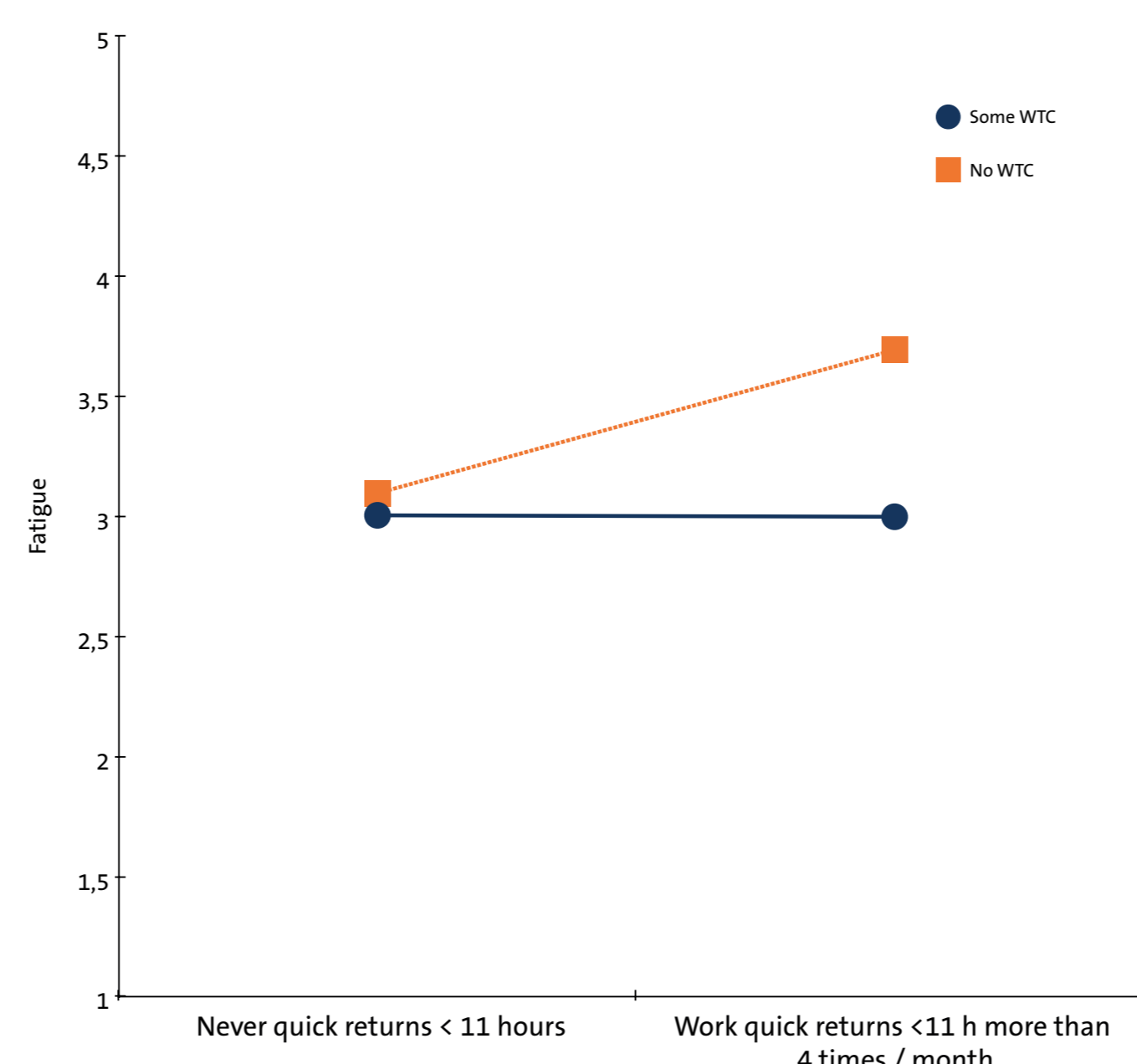


Figure 4. The interaction between work time control (WTC) and amount of unpaid overtime in the prediction of fatigue.

