



# Work schedule and antidepressant prescriptions in the Swedish workforce: A 2-year prospective study using national drug registry data

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## Background

There have been few longitudinal studies of the association between work schedule and mental health, and the vast majority of those used subjective outcome measures. This study prospectively examined the effect of self-reported work schedule on registry-based antidepressant prescriptions over a two-year period.

## Method

The analytic sample (n=8643) was obtained from the Swedish Longitudinal Occupational Survey of Health. Sex-stratified analyses were conducted using logistic regression. For exposure, 8 categories were used to describe work schedule in 2008: see Table 1. For the outcome, all prescriptions coded N06A according to the Anatomical Therapeutic Chemical System were obtained from the Swedish National Prescribed Drug Register and dichotomized into “any” or “no” prescriptions between 2008 and 2010. Estimates were adjusted for potential sociodemographic, health, and work confounders, and for prior depressive symptoms.

## Results

See Table 1. In unadjusted analyses, an increased odds ratio for depression was observed for “Other” work hours in females; in adjusted models effects persisted but confidence intervals widened to non-significance at the p=0.05 level. In models adjusted for previous depressive symptoms, females in “flexible/non-regulated” schedules showed an increased odds ratio for depression.

## Conclusions

Women with flexible or unregulated working time arrangements were twice as likely as their dayworking counterparts to be prescribed antidepressants. The association among men was not significant. Women may be more likely than men to use their flexibility to engage in more non-work responsibilities, rather than using it to recover and reduce strain. There was no evidence of an association between shift working (currently or in the past) and antidepressant prescription.

**Table 1: Cox regression analyses predicting first incident use of antidepressants for each category of work schedule. Odds Ratios (OR) and 95% Confidence Intervals (CI)**

	Model 0				Model 1				Model 2									
	Unadjusted				Adjusted for Demographic & Work Variables				Adjusted for Demographic & Work Variables + Previous Depression or Antidepressants									
	OR	Females 95% CI	Males 95% CI	OR	Females 95% CI	Males 95% CI	OR	Females 95% CI	Males 95% CI	OR	Females 95% CI	Males 95% CI						
<b>Shift Work Schedule, 2008</b>																		
Regular days	Ref	-	-	Ref	-	-	Ref	-	-	Ref	-	-	Ref	-	-	Ref	-	-
Regular days (≤ 3 yrs previous night work)	1.14	0.77	1.69	1.22	0.76	1.95	1.03	0.69	1.54	1.28	0.79	2.07	0.73	0.46	1.18	1.23	0.71	2.14
Regular days (4+ yrs previous night work)	1.03	0.65	1.63	1.49	0.96	2.29	0.93	0.58	1.47	1.31	0.84	2.05	0.64	0.37	1.10	1.54	0.93	2.56
Nights (fixed, roster or rotating shifts)	1.01	0.68	1.49	0.90	0.52	1.56	0.74	0.49	1.12	0.84	0.48	1.48	1.01	0.63	1.63	0.85	0.45	1.59
Shift work (days & evenings only)	1.00	0.65	1.54	0.47	0.17	1.30	0.78	0.50	1.21	0.52	0.19	1.44	0.62	0.37	1.05	0.50	0.17	1.49
Roster work (days & evenings only)	1.25	0.85	1.86	0.85	0.26	2.75	0.92	0.61	1.40	0.92	0.28	3.01	0.97	0.60	1.57	1.08	0.28	4.14
Flexible/non-regulated hours	1.31	0.78	2.21	0.79	0.34	1.83	1.36	0.80	2.34	0.67	0.29	1.57	2.01	1.08	3.76	0.88	0.35	2.24
Other work hours	1.62	1.05	2.51	1.87	0.95	3.67	1.32	0.85	2.07	1.63	0.81	3.28	1.39	0.81	2.40	1.72	0.75	3.94

Model 0=crude; Model 1=adjusted for age, eveningness, marital status, education, chronic health conditions, employer type (private, public sector, other), full/part time work status, job strain, social support at work, emotional demands at work; Model 2=Model 1 + depression in 2008 or antidepressant prescription in 2005-2008.

Key: **increased HR**

## CONTACT