

Objective

Non-standard work arrangements are becoming an increasingly important determinant of health and safety among workers.

The main objective of our study is to examine the relationships between non-standard work arrangements indicators including contract type, long working hours, multiple jobs, shift work, and injuries, taking into account several sociodemographic and work characteristics.

Study design

Organization

Eurofound

Questionnaire

5th European working condition survey (EWCS) 2010

Sample number

From 43816 persons in EWCS only 26839 workers included

For the purpose of this analysis, the analytical sample was restricted to a subgroup of 26839 respondents from the 27 countries of the European Union, who were all workers with either a permanent contract, a temporary or a fixed contract.

Results

Characteristics of the study population (n =26839)

Individual and work-related factors	Total study sample n (%)
Mean age (SD)	40.00 (12.0)
Gender: n = 26839	
Male	14324 (53.37)
Female	12515 (46.62)
Injured: n = 26799	
No	24537 (91.55)
Yes	2262 (8.44)
Contract type: n = 26839	
Precarious contract	3849 (14.3)
Permanent contract	22990 (85.7)
Long hours: n = 26271	
Never	18561 (70.65)
Yes	7710 (29.34)
Multiple jobs: n = 26721	
No	24868 (93.06)
Yes	1853 (6.93)
Shift work: n = 26653	
No	21245 (79.70)
Yes	5408 (20.29)

Calculated according to the percentage of the valid count

Results from the multilevel binary regression analysis for long hours, multiple jobs, precarious work and shift work simultaneously in relation with injuries.

Non-standard work arrangement indicators	Reference category: No injury				VPC 6.85%
	Step 2	OR	[95%CI]	P-value	
Contract type Precarious Vs. permanent ^a		0.91	[0.78- 1.07]	0.27	
Long hours Yes Vs. never ^a		1.29	[1.15- 1.44]	< 0.001	
Multiple jobs Yes Vs. no ^a		1.23	[1.03- 1.47]	0.02	
Shift work Yes Vs. no ^a		1.35	[1.18- 1.54]	<0.001	

OR: Odds ratios, [95%CI]: 95% Confidence Interval, VPC: Variance of Partition Coefficient.

^a Reference category

Significant associations are in bold.

Adjusted for gender, age, experience, education, company size, economic activity, self-rated health, stress, overall fatigue, sleep difficulties, Sunday work and work-life balance.

Conclusions

- This study confirms that indicators of non-standard work arrangements, with the exception of contract type, were significantly associated with injuries.
- More attention should be paid to workers with non-standard work arrangements.
- Further efforts on the workplace, the organizational and political level are needed to avoid non-standard work arrangements in order to improve workers' health and safety.