

*20th International Symposium on  
Shiftwork and Working Time*

***”Biological mechanisms,  
recovery and risk management  
in the 24h society”***



**BOOK OF ABSTRACTS  
AND PROGRAM**

Edited by

**John Axelsson • Göran Kecklund  
Anders Knutsson • Arne Lowden  
• Torbjörn Åkerstedt**

## Alcohol Consumption in Shiftworkers Compared to Dayworkers

Dorrian Jillian (1), Skinner Natalie (2), Pisaniello Sandra (2)

(1) Centre for Sleep Research, University of South Australia, Adelaide, Australia

(2) Centre for Work + Life, University of South Australia, Adelaide, Australia

### Objectives

The detrimental effects of excessive alcohol consumption are well documented. There is evidence that shiftworkers consume more alcohol than dayworkers, using alcohol as a sleep aid to compensate for sleep difficulties associated with shiftwork schedules. This study investigated drinking patterns in people working outside a typical Monday-Friday daytime work schedule, compared to dayworkers.

### Method

This study included the 2006 and 2007 waves of the Household Income and Labour Dynamics Survey of Australia, which has a sample representative of the Australian population. A subset of workers who were not in full-time study and worked a single job were selected, excluding participants who did not drink alcohol (1262male, 1007female, mean age=41.6y SD=11.3y). Using the 2001 Australian Government alcohol guidelines, which were in effect during data collection, alcohol consumption for risk of short-term harm (7+ standard drinks for men and 5+ for women) was investigated. The number of people who drank alcohol nearly every day or every day was also examined.

### Results

Nearly 11% of participants reported consuming alcohol at levels risky for short-term harm. Having a child less than 17years (OR=0.53, 95%CI=0.32-0.88), higher job demands (OR=0.74, 95%CI=0.61-0.89), working more hours than preferred (OR=0.58, 95%CI= 0.36-0.95) being female (OR=0.47, 95%CI=0.27-0.81), and being older (OR=0.89, 95%CI=0.87-0.92) were associated with a reduction, and being a shiftworker (OR=2.05, 95%CI=1.18-3.57) with an increase in the odds of drinking alcohol at short-term risky levels.

Nine and a half percent reported consuming alcohol at short-term risky levels at least weekly. Having a child less than 17years (OR=0.39, 95%CI=0.21-0.72), higher job demands (OR=0.70, 95%CI=0.55-0.88), being female (OR=0.29, 95%CI=0.16-0.54), and being older (OR=0.91, 95%CI=0.88-0.94) were associated with a reduction, and increased work-family strains (7-point scale, OR=1.33, 95%CI=1.11-1.60) and being a shiftworker (OR=2.26, 95%CI=1.64-4.39) were associated with an increase in the odds of consuming alcohol at such risky levels at least weekly.

Nearly 18% reported consuming alcohol in any amount near daily or daily. Working more hours than preferred (OR=1.64, 95%CI =1.10-2.44) and being older (OR=1.09, 95%CI=1.07-1.12) were associated with an increase, and being female (OR=0.22, 95%CI=0.14-0.37), and being a shiftworker (OR=0.35, 95%CI=0.20-0.61) were associated with a decrease in the odds of consuming alcohol daily or near daily.

### Conclusions

Results suggest that shiftworkers may be more likely to consume alcohol at levels considered to be risky for health in the short-term. In contrast, they appear less likely to drink alcohol daily. This is suggestive of a ‘binge drinking’ pattern of behaviour.

Dorrian Jillian, Senior Lecturer

jill.dorrian@unisa.edu.au