Effects of long working hours and alcohol intake

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Working long hours has been shown to increase the risk of adverse health outcomes such as depression, anxiety and sleep deprivation (Bannai and Tamakoshi, 2014), and may increase the likelihood of risky drinking (Gibb et al, 2011).

Current advice

The National Institute for Health and Care Excellence’s (2010) public health guideline on alcohol-use disorders and preventing harmful drinking recommends that NHS professionals routinely carry out alcohol screening as an integral part of practice. Screening involves identifying people who are not seeking treatment for alcohol problems but who, in the view of the professional, may have an alcohol-use disorder.

New evidence

Virtanen et al (2015) carried out a meta-analysis to assess whether long working hours were associated with using alcohol at a level that might pose a health risk. The authors identified 36 relevant published studies and unpublished individual participant data from a meta-analysis consortium and open-access data collections. The published and unpublished data were pooled into cross-sectional and prospective groups for meta-analysis.

The published studies variously defined long working hours as:
- <35 hours a week;
- 35-40 hours a week;
- 41-48 hours a week;
- 49-54 hours a week;
- 55 hours a week or more.

Risky alcohol use was: >14 drinks a week for women and >21 drinks a week for men.

Pooled analysis of the published and unpublished cross-sectional data found long working hours were associated with a small increase in the likelihood of risky alcohol use. The published cross-sectional studies were very heterogeneous, but meta-regression models of sex, study location, sociodemographic and population variables could not explain the heterogeneity.

Pooled analysis of the published and unpublished prospective data found that, among people who used alcohol at safe levels at baseline, those who worked at least 55 hours a week were more likely to develop risky alcohol use than those who worked 35-40 hours a week. Working 49-54 hours a week was associated with a similar risk of onset of risky alcohol use.

Limitations include that only two prospective published studies were available and most studies used self-reported data. All the included studies were observational, which limits the generalisability of these results.

References


Interpreting the literature on health effects of alcohol use is especially difficult because researchers choose very different definitions of what constitutes “heavy”, “excessive” or “risky” alcohol use. In addition, most studies rely on participants’ personal recall.

The findings of this new meta-analysis may have public health relevance if they do reflect a true causal relationship – that is, long hours led to increased alcohol use, and not, for example, that loneliness led to working long hours and increased alcohol use. But it is difficult to see how the findings can be incorporated into clinical practice, because the size of the effect at a personal level would be very small.

The review is a reminder that as the size of a meta-analysis increases, smaller and smaller effects will become statistically significant, such that in an infinitely large study, the tiniest difference will be statistically significant. Epidemiological findings should be interpreted cautiously because it is so easy to be misled by observational studies, particularly when the findings refer to small effects.

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