Working conditions

The consequences of flexible work for health: are we looking at the right place?

J Benach, M Amable, C Muntaner, F G Benavides

Association between working conditions and health

orking conditions in industrialised countries have changed dramatically over the past two decades. The internationalisation of investment, production and trade, the application of new technologies, and the emergence of new forms of work organisation have transformed what had become standard forms of work arrangements, capital-labour accords and employment contracts. One of the most significant changes has been generalisation of flexible labour markets, with the emergence of new forms of employment contracts (or the reemergence of contract and temporary labour) and the reduction of employee security. Within this context, unemployment has declined or stabilised whereas the "standard" full time permanent job with benefits has being replaced with temporary work, contingent, part-time contract, unregulated work, home based work, and other non-standard work arrangements many of which are characterised by their reduced job security, lower compensation, and impaired working conditions.

There is overwhelming evidence that unemployment is strongly associated with economic strain, and psychosocial factors that increase the risk of adverse health outcomes, unfavourable lifestyles, and economic difficulties.1 Despite optimistic claims of full employment and tight labour markets, many workers in "flexible" jobs share labour market characteristics (lower credentials, low income, female gender, migrants, nonwhite race) with the unemployed and go themselves through periods of unemployment. Therefore, working conditions under those new types of work arrangements may be as dangerous as unemployment for workers' health.2

What can be the consequences of flexible work for health? Most initial evidence has originated from studies of job insecurity, usually measured with attitude scales (for example, the discrepancy between the level of security a person experiences and the level she or he prefers). This specific psychosocial characteristic has emerged in recent years as

the main focus in the flexible work studies.4 The experience of job insecurity has been associated with psychological ill health. For example, one study showed that perceived job insecurity was the single most important predictor of a number of psychological symptoms such as mild depression.5 Although there have been negative findings from prospective studies of substance use,6 self reported health status has tended to deteriorate among workers anticipating job change or job loss in a group of middle aged white collar civil servants.7 There is also some evidence on the association between self reported job insecurity and subclinical atherosclerosis among black men in the US.8 Downsizing, which can lead to increase job insecurity, has been shown to be a risk to the health of employees. Thus, a significant linear relation between the level of downsizing and long periods of sick leave, attributable to musculoskeletal disorders and trauma, has been observed.9 Overall, these studies of workplace closure and self reported job insecurity present consistent evidence that job insecurity can have significant adverse effects on self reported physical and mental health.10

In this issue of the journal, the paper by Ferrie et al goes a step further presenting for the first time evidence on the physiological effects of perceived loss or gain of job insecurity over time.11 Results show that relative to workers who remained in secure employment, self reported morbidity was raised among workers who lost security. Workers exposed to chronic job insecurity had the highest self reported morbidity, indicating that job insecurity acts as a chronic stressor. Among those who regained job security, adverse effects, particularly in the psychological sphere, were not completely reversed by removal of the threat. Indeed, chronic anxiety may be devastating to the health of the worker as well as to the wellbeing of the worker's family.12

Despite these important new findings, knowledge on the health effects of flexible work is still limited and many challenges remain. We need more studies

including qualitative as well as longitudinal data. We also need better models and measures to be able to understand the mechanisms through which the threat of becoming unemployed may differently damage health of different types of workers. Yet a more fundamental question needs to be raised: Is job insecurity the best theoretical approach to understand the new workplace reality? In other words, are we focusing on the key mechanism linking flexible work to poor health? Despite its value, knowledge on job insecurity may only provide a partial picture of the new work relations unable to fully explain how psychosocial work environments are affecting the health of the flexible workforce. The main reasons may be summarised as follows: firstly, as social and labour market relations determine the workers' subjective threat of being unemployed, job insecurity may not provide an insight into working relations on flexible workers' health. For example, some longstanding temporary workers may not perceive the threat of becoming unemployed as they may no longer have expectations of full employment. Secondly, information on job insecurity alone may not be able to capture the impact of workplace structural determinants, such as the lack of unionisation, lack of benefits or domination in the workplace, into the workers' health. Thirdly, self perceived individual job insecurity may ignore important health related social relations in the workplace. For example, temporary workers may be discriminated by both supervisors and permanent workers. Fourthly, the lack of security may be thought as an "objective" risk factor assumed to be universal across jobs and workplaces whereas in fact its meaning and health related impact may vary according to different labour market characteristics such as type of flexible work contract, social class, race/ethnicity, age or genders. For example, subjective job insecurity may be associated with worse health outcomes among a non-white woman immigrant, working as a temporary nurse assistant, than among a white man working as a computer network independent contractor. Finally, a primary focus on perceived job insecurity may divert research efforts at capturing the health effects of objective flexible work characteristics, including the real likelihood of losing one's job.

While job insecurity may be a good predictor of workers' health, its potential limitations suggest the need to develop other conceptual alternatives based on the social structure of work. What are the best candidates? The analysis of temporary employment and fixed term contracts has already proved its value. Temporary workers work more often in painful and tiring positions, are more

406 EDITORIAL

exposed to intense noise, perform more often repetitive movements, have less freedom to choose when to take personal leave,13 and are far less likely to be represented on health and safety committees.14 There is some evidence that non-permanent workers enjoy less job autonomy and control over working time than workers on permanent contracts and are likely to be occupied in less skilled jobs15 and that they have worse health outcomes as compared with permanent workers. 16 In addition, nonpermanent workers have less knowledge about their work environment, feel more constrained by their status to complain about work hazards, and have more difficulties for changing their working conditions.17 A second alternative can be found in the constructs of "precarious work" in the EU and flexible or nonstandard work arrangements in the US. These terms are widely used in the field of sociology. 18-21 Precarious work, for example, might be considered a multidimensional construct defined according to a number of dimensions such as temporality, powerlessness, or lack of social benefits.22 Their definition and interpretation, however, is not easy and public health scholars have yet to define them and examine their potential health im-

To study how flexible work is affecting workers' health we need to understand both how society is changing labour relations, labour/capital accords, labour contracts or employment contracts and what are the social processes of production that affect workers' health. Indeed, the most important single factor that to date limits our understanding of the potential health related impact of new types of flexible employment is the lack of an integrative social and labour model. Now that flexible work has spread so extensively and its negative health effects are becoming increasingly documented by important studies such as Ferrie et al, it seems a good time to expand the field and move forward from a transitional stage of conceptual and empirical development.

J Epidemiol Community Health 2002;**56**:405–406

.....Authors' affiliations

J Benach, M Amable, F G Benavides,

Occupational Health Research Unit, Department of Experimental and Health Sciences, Universitat of Pompeu Fabra, Barcelona, Spain M Amable, Lanus National University, Lanus, Argentina

C Muntaner, Department of Behavioural and Community Health and Department of Epidemiology and Preventive Medicine, University of Maryland, Baltimore, USA

Funding: research partly supported by FIS 00/0884 and SEC99–0784 (JB, MA, FGB) and NIOSH grant R01 OH03528 (CM).

Conflicts of interest: none.

Correspondence to: Dr J Benach, Department of Health and Experimental Sciences, Occupational Health Unit, Universitat of Pompeu Fabra, C/Dr Aiguader, 80, 08003 Barcelona, Spain; joan.benach@cexs.upf.es

REFERENCES

- 1 Dooley D, Fielding J, Levi L. Health and unemployment. Annu Rev Public Health 1996;17:449-65.
- 2 Benach J, Benavides FG, Platt S, et al. The Health-damaging potential of new types of flexible employment: a challenge for public health researchers. Am J Public Health 2000;90:1316–17.
- 3 Hartley JF, Jacobsen D, Klandermans B, et al. Job insecurity: coping with jobs at risk. London: Sage, 1991.
- 4 Ferrie JE, Marmot MG, Griffiths J, et al, eds. Labour market changes and job insecurity: a challenge for social welfare and health promotion. Denmark: WHO Regional Publications, European Series, no 81, 1999.
- 5 **Dooley D**, Rook K, Catalano R. Job and non job stressors and their moderators. *Journal of Occupational Psychology* 1987:60:115–32
- Occupational Psychology 1987;60:115–32.
 6 Muntaner C, Anthony JC, Crum R, et al.
 Psychosocial dimensions of work and the risk
 of drug dependence among adults. Am J
 Epidemiol 1995;142:183–90.
- 7 Ferrie JE, Shipley MJ, Marmot MG, et al. Health effects of anticipation of job change and non-employment: longitudinal data from the Whitehall II study. BMJ 1995;311:1264-9.
- 8 Muntaner C, Nieto J, Cooper L, et al. Work organization and atherosclerosis. Am J Preven Med 1998:14:9–18.

- Vahtera J, Kivimäki M, Pentti J. Effect of organisational downsizing on health of employees. *Lancet* 1997;350:1124–8.
- 10 Marmot M, Ferrie J, Newman K, et al. The contribution of job insecurity to socio-economic inequalities. Research Findings: 11. Health Variations Programme, May 2001.
- 11 Ferrie JE, Shipley MJ, Stansfeld SA, et al. Effects of chronic job insecurity and change in job security on self reported health, minor psychiatry morbidity, phisiological measures, and health related behaviours in British civil servants: the Whitehall II study. J Epidemiol Community Health 2002;56:450-4.
- Description of the control of the co
- 13 Letourneux V. Precarious employment and working conditions in the European Union. European Foundation for the Improvement of Living and Working Conditions. Luxembourg: Office for Official Publication of the European Communities, 1998.
- 14 Quinlan M, Mayhew C. Precarious employment, work re-organisation and the fracturing of occupational health and safety management. In: Frick K, Langaa Jensen P, Wilthagen T, eds. Systematic OHS management: perspectives on an international development. Amsterdam: Elsevier, 2000.
- 15 European Foundation for the Improvement of Living and Working Conditions. Working conditions in atypical work. Luxembourg: Office for Official Publications of the European Communities, 2001.
- 16 Benavides FG, Benach J, Diez-Roux AV, et al. How do types of employment relate to health indicators? Findings from the Second European Survey on Working Conditions. J Epidemiol Community Health 2000;54:494–501.
- 17 Aronsson G. Contingent workers and health and safety. Work, Employment and Society 1999;13:439–59.
- 18 Cano Cano E. Precarización laboral, flexibilidad y desregulación. Valencia: mimeo, 1998.
- 19 **Paugam S**. Le salarié de la précarité. Paris: Presses Universitaires de France, 2000.
- 20 Bilbao A. El empleo precario. Seguridad de la economía e inseguridad en el trabajo. Madrid: Catarata, 1999.
- 21 Siegenthaler JK, Brenner AM. J Flexible work schedules, older workers, and retirement. Journal of Aging and Social Policy 2000;12:19–34.
- 22 Amable M, Benach J, González S. La precariedad laboral y su impacto sobre la salud: conceptos y resultados preliminares de un estudio multi-métodos. Archivos de Prevención de Riesgos Laborales 2001;4:169–84.