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Special Issue

Stress at Work

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editorial

Work-related stress is a big problem in Europe, and one that costs business and society dear. Stress is the second most common health symptom reported by Europe's workers (3rd European survey, Dublin Foundation)[1]. An ILO report[2] estimates that anywhere from 3-4% of GNP is spent on mental health problems in the European Union.

Work-related stress has its roots in a form of work organization that dictates work content and context, working methods and the time aspects of work. The intensification of work and productivity-chasing which is spreading across Europe under pressure to be competitive in world markets is changing working conditions by ratcheting up time pressures, workloads and stress on workers. Spreading job insecurity further undermines workers' positions and makes them more vulnerable. The resulting stress and its effects on workers' health does not stop at the factory gates – it is increasingly a European problem that must be addressed by European policies.

Trade unions across Europe saw that a major problem was brewing and called for a debate around the topic right after the Framework Directive came in, over 10 years ago.

Back in 1998, the TUTB published a report on the Dutch experience of stress and wellbeing at work in relation to the Framework Directive. The report, which came out of the work of its Observatory on the application of European Directives, found clear evidence that stress and psychologically-induced work incapacity were closely correlated with working conditions and workload.

Prompted by trade unions, the European Institutions (like the European Commission, European Parliament and European Safety and Health Agency) have taken a series of initiatives in the past 6 years. An ad hoc group of the Advisory Committee for Health & Safety was set up in 1996 to consider stress. In 2000, the European Commission responded to its opinion by publishing a European guidance on work-related stress. The European Parliament published a report on harassment at the workplace in July 2001 and the Advisory Committee adopted an opinion on violence at the workplace in November the same year. Also this year, the European Agency for Safety and Health at Work's European Week is devoted to stress prevention.

What is now needed is progress towards practical actions on stress prevention at European level. It is good that the Commission's OSH strategy acknowledges the need for more actions at European level to prevent work-related stress and invites the social partners to start consultation procedures - but it is not enough. The fact is that still now, more than ten years since the Framework Directive was adopted, risk assessments and prevention measures in Europe's workplaces take almost no account of stress factors. The European legislation neither excludes nor expressly refers to stress prevention.

This report is an opportunity to frame proposals for future European policies on the topic for the Commission's forthcoming health and safety programme and a potential discussion with employers. It should also help raise awareness among our members and give a clearer picture of stress in Europe today.

But it does not claim to be an encyclopaedic survey of work-related stress issues. It aims to zoom in on current issues around stress prevention policies in Europe, give some background, and set a debate rolling on future European actions.

This special issue begins with an introductory review by the TUTB of the situation on stress prevention in Europe. It covers the legal framework, recognition of stress, trade union initiatives

[1] Pascal Paoli and Damien Merllié, *3rd European survey of working conditions*, European Foundation for the Improvement of Living and Working Conditions, 2000.

[2] *Mental health in the workplace: Introduction*, prepared by Ms Phyllis Gabriel and Ms Marjo-Riitta Liimatainen, Geneva, International Labour Office, October 2000.

and the obstacles to prevention in Europe, and frames proposals for future European policies. The analysis of the current situation was based on a European study commissioned by the TUTB among its affiliates, as well as the European survey on work-related stress and industrial relations carried out by the Dublin Foundation.

Part two looks at European initiatives on stress-related issues. The author of the European guidance on work-related stress, Prof. Levi, explains the basics about stress, presents the various parts of the guidance and suggests three complementary initiatives for action on stress prevention in Europe. The Chair of the Advisory Committee's ad hoc group on violence at work, Raili Perimäki, examines the key recommendations of the recent opinion.

The third part of the report starts with an overview of national legislative initiatives on psychological harassment in France, Belgium and Sweden based on the work of the TUTB's legislation observatory. This part also gives interesting insights into national initiatives on stress prevention. Comprehensive reviews of national statistics, surveys, authorities and trade union initiatives, as well as national debates on stress, are given by the TUC's Owen Tudor for Britain and Prof. W. B. Schaufeli of Utrecht University for the Netherlands.

We thought this special report could be usefully supplemented with a selection of recent assessment methods on psychosocial factors, namely QUEST (developed by QUEST and the National Institute for Research on Working Conditions (INRCT) in Belgium), the WOCCQ questionnaire devised by Liège University with support from the Belgian Ministry of Labour, the Copenhagen Psychosocial Questionnaire from the Danish research institute AMI, and finally a Nordic method for measuring psychosocial and social factors at work published by the Nordic Council of Ministers. It is important that stress assessment methods should focus on diagnosing organizational problems, not be confined to actions for individuals. This means that workers and their representatives must be involved if it is not to end up as a pointless exercise with employees simply ticking boxes and the data obtained open to misuse.

Finally, we point out that stress can affect the human organism in many ways, illustrated by two articles from the INRS and ANACT that provide new information on the links and pathogenic correlations between stress and musculoskeletal disorders, and suggest future actions.

Pulling all this together, we point out where European policies are falling down, and come up with proposals for action on employers' obligations, a proactive prevention approach, the different stress factors that must be acknowledged, and the role of trade unions and workers' representatives.

Marc Sapir,
Director of the TUTB

IN THIS ISSUE

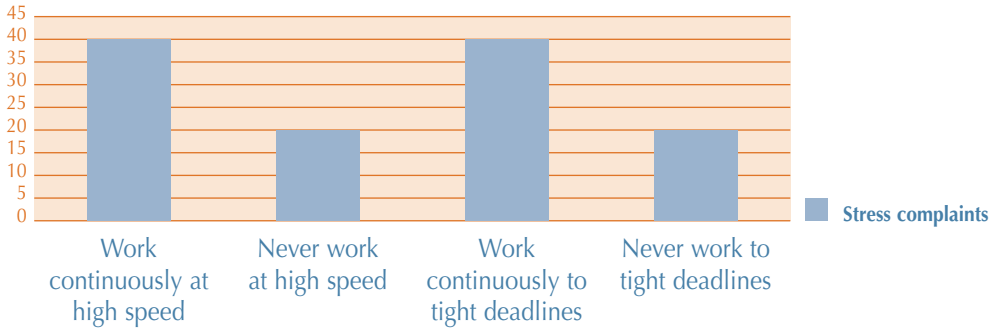
Stress prevention in Europe : review of trade union activities - Obstacles and future strategies

Theoni Koukoulaki*

Background

Stress is the second most common health symptom reported by European workers (3rd European survey, Dublin Foundation)[1]. Stress and features of work organization like pace of work, time pressure and repetitive work were found to be highly correlated. For example, where conditions like working at high speed and to tight deadlines were present, the number of people reporting stress doubled (Figure 1).

Figure 1
Percentage of reported stress complaints



National surveys carried out by local authorities, research institutes and trade unions underline the close links between stress and work organisation.

Social and economic impact of stress in Member States

- In **Austria** 13.9% of men and 22.6% of women took invalidity retirement due to psychiatric and neurological illnesses (Federal Ministry of Labour, Health & Social Affairs, 1998).
- In **Luxembourg**[2] 17% of sick days in the service and retail sectors are caused by psychosomatic problems.
- In the **Netherlands** in 1998, mental disorders were the main cause of incapacity (32%)[3]. The cost of work-related psychological illness is estimated at 2.26 million euros a year[4].
- In a national survey in the **UK** (HSE, 2000), one in five workers were 'extremely' or 'very' stressed as a result of occupational factors. Also in the UK, stress-related illness is responsible for the loss of 6.5 million working days each year costing employers around 571 million euros and society as a whole as much as 5.7 billion euros.
- In **Sweden** in 1999, 14% of 15,000 workers on long term sick leave said the reason was stress and mental strain. (The corresponding figure in 1998 was 11.7%). The total cost of sick leave to the state in 1999 was 2.7 billion euros. This figure is expected to double in 2003 (National Social Insurance Board, 1999).
- A conservative estimate of the costs at **European level** amounts to 20 billion euros a year.

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[1] Pascal Paoli, Damien Merllié, *3rd European survey of working conditions*, Dublin, European Foundation for the Improvement of Living and Working Conditions, 2000.

[2] Data based on occupational health service reports in 2001.

[3] Stichting van de Arbeid, Nota: *Beperking ziekteverzuim en instroom in de WAO* (Report: Reduction of absenteeism and work incapacitation risk), Den Haag, Stichting van de Arbeid, Publicatienummer (5/99), 1999.

[4] *Covenants on health and safety at work for improved conditions in the Netherlands*, Ministry of Social Affairs and Employment, Information, Library and Documentation Directorate, The Hague, 2000.

The European Institutions have taken an active interest in stress and related topics like harassment in recent years. In 1997, the Advisory Committee for Safety, Hygiene and Health at Work adopted an opinion on stress, calling for the Commission to draw up a voluntary guidance document. That guidance was published in 2000. This year (2002), stress is the theme of the Bilbao Agency's European Week. The European Parliament published a report on harassment at the workplace in July 2001 and the Advisory Committee adopted an opinion on violence at the workplace in November the same year. The European Council of Health Ministers in its recent "Conclusions"[5] (2001) invited the EU Member States to "give special attention to the increasing problem of work-related stress and depression" and the Commission to take action in the context of the public health programmes.

In its recent European strategy on health and safety[6] the European Commission announces that it will open consultations with the social partners on stress and its effects on health and safety at work, under the procedure laid down in Article 138 of the Treaty. A European Parliament hearing on the European strategy on 19 June 2002 also included a discussion of stress issues.

The TUTB sees stress as an acute problem in Europe, not least due to increasing work intensification and job insecurity due to company restructuring and adaptation of flexible forms of work organization. It is evident from the last European survey, that work stress is not being sufficiently controlled in Europe, if at all in some Member States, and that stricter prevention policies must be applied.

The TUTB commissioned a study on stress in March 2002, addressed to its EU affiliates and European Federations, aiming to report on stress prevention initiatives in Europe and identify future needs for European actions. In November 2001, the European Foundation for the Improvement of Living and Working Conditions carried out a European survey on "Work-related stress and industrial relations"[7] in the framework of its industrial relations observatory. This article uses a combination of analysis data from both studies as a basis for illustrating the current situation and needs for future prevention strategies in Europe.

For further information on the European Week 2002, see the Bilbao Agency web site: Osha.eu.int/ew2002

Time pressure and stress go together

- **Austria**: 1,255,000 workers reported suffering from work-related stress associated with time pressure (Federal Chamber of Labour and Austrian Trade Union Federation, 2000).
- **Denmark**: 8.2% of a representative sample of employees reported being «often» emotionally exhausted and 31.6% reported being «sometimes» emotionally exhausted (PUMA study, National Working Environment Institute, AMI, 2001).
- **Germany**: 98% of works councils claimed that stress and pressure of work had increased in recent years, and 85% cited longer working hours (IG Metall 2000).
- **Spain**: 31.8% of workers described their work as stressful (*Survey on Quality of Life in the Workplace*, Ministry of Employment and Social Affairs, 2001).
- **Sweden**: 9 out of 10 white-collar workers report working against the clock in their daily tasks, 40% skip lunch breaks (Survey report : *Stressed out, committed to work and burn out, or bored and healthy – must one choose ?*, TCO, 2000).

Legal framework

Stress is not mentioned as such in the European legislation. Framework Directive 89/391/EEC lays down the employer's general obligations to ensure the health and safety of workers in every aspect related to the work. Specifically, it requires the employer to 'adapt the work to the individual especially as regards (…) the choice of working and production methods, with a view, in particular, to

[5] Council conclusions of 15 November 2001 on combating stress and depression-related problems.

[6] Communication from the Commission, *Adapting to change in work and society: a new Community strategy on health and safety at work 2002-2006*, 2002.

[7] Clara Llorens, ISTAS/QUIT-UAB and Daniel Ortiz de Villacian, QUIT-UAB, *Work-related stress and industrial relations*, European Foundation for the Improvement of Living and Working Conditions, 2001.
The results of the national reports can be found at : http://www.eiro.eurofound.eu.int/2001/11/study/index.html

alleviating monotonous work and work at a predetermined work-rate and to reducing their effect on health'.

No European country expressly refers to work-related stress in its regulations. Two quite recent regulations in Europe laid down more specific obligations on employers to prevent psychosocial risks. In Sweden, in particular, employers must make a prior assessment of health and safety impacts before introducing organizational changes. Mental injury was also acknowledged as accompanying any type of accident (Sweden, 2001[8]). Austrian employers now have a duty to employ psychologists in their prevention services, with occupational doctors and safety officers, for up to 25% of prevention duty time, depending on the company's workload (Austria, 2002).
A regulation set to be published in Finland this autumn will address wellbeing at work generally.

Other countries (Belgium, Denmark, Germany and the Netherlands) extended the Framework Directive's provisions in their national regulations to place a general duty on employers to act against psychosocial factors that can have adverse effects on workers' mental health.

Three countries - France, Sweden and Belgium - have taken legislative initiatives on another aspect of stress : 'psychological harassment'.

The European Commission, in its health and safety strategy, acknowledged the increase in psychosocial problems and illness, and the threat they pose to the health, safety and wellbeing of workers. It says that the various forms of psychological harassment and violence at work require legislative action.

Indirect provisions for stress-related aspects in European legislation

■ **Framework Directive 89/391/EEC**
Article 6, General obligations on employers :
§ 2 (d)
"adapting the work to the individual, especially as regards the design of workplaces, the choice of work equipment and the choice of working and production methods, with a view, in particular, to alleviating monotonous work and work at a predetermined work-rate and to reducing their effect on health."
§ 3 (c)
"ensure that the planning and introduction of new technologies are the subject of consultation with the workers and/or their representatives, as regards the consequences of the choice of equipment, the working conditions and the working environment for the safety and health of workers."

■ **Display Screen Directive 87/391/EEC**
Article 3, § 1 : Analysis of workstations
"employers shall be obliged to perform an analysis of workstations in order to evaluate the safety and health conditions to which they give rise for their workers, particularly as regards possible risks to eyesight, physical problems and problems of **mental stress**."

■ **Organisation of Working Time Directive 93/104/EC -** Article 13 : Pattern of work
"Member States shall take the measures necessary to ensure that an employer who intends to organize work according to a certain pattern takes account of the general principle of adapting work to the worker, with a view, in particular, to alleviating monotonous work and work at a predetermined work-rate, depending on the type of activity, and of safety and health requirements, especially as regards breaks during working time."

EU Guidance on work-related stress

The development of European guidance on work-related stress[9] came as a result of the Luxembourg Advisory Committee's opinion on stress. The guidance comprises background on the concepts of stress, a checklist of stressors at the workplace and finally a short presentation on examples of prevention.

The European Commission guidance defines stress as : "*a pattern of emotional, cognitive, behavioural and physiological reactions to adverse and noxious aspects of work content, work organization and work environment. It is a state characterized by high levels of arousal and distress and often by feelings of not coping*"[10]. The guidance acknowledges two types of stress: positive

[8] The new regulation AFS 2001:1: "Systematic work environment management" can be found in English at: http://www.av.se/English/legislation/afs/eng0101.pdf

[9] Levi, L and I., *Guidance on Work-Related Stress. Spice of Life, or Kiss of Death?*, Luxembourg, Office for Official Publications of the European Communities, 2000.

[10] The same definition was agreed in the opinion of the Advisory Committee on work-related stress.

(healthy) stress that stimulates individuals and prepares them for the demands of work, that are then seen as 'challenges'; and negative stress (excessive, and with no control over work) that can have adverse effects on human health. Although the book focuses on company measures, it also mentions person-oriented measures like physical training, health promotion, relaxation techniques and personal stress management. These two references in the guidance may allow employers to interpret stress problems at the workplace incorrectly, and thus shift the focus onto the individual.

Also, productivity is cited throughout as a reason for action to prevent stress, and a key criterion for assessing the effectiveness of interventions. Granted, productivity should not be disregarded, but nor should it be the primary aim of stress prevention measures or a parameter of critical evaluation. The focus and benchmark should always be safeguarding the physical and mental health and well-being of workers.

The guidance does not offer a complete assessment methodology itself, but instead refers to risk assessment tools, namely checklists and questionnaires on work factors and stress management. It also provides a checklist of types of work-related stressors and suggests some organizational prevention principles like participatory management, job redesign, flexible work schedules and career development. But the suggestions and examples it offers do not fully take into account recent concerns raised by the research community and trade unions about the health and safety effects of new forms of work organization.

In fact, the European guidance has had little impact at national level, where it has tended more to provide prevention experts with a scientific basis for stress issues and basically acknowledged the European dimension of the problem. It is difficult to assess its impact on interventions for stress prevention at workplace, or even national, level. Its contribution to practical prevention initiatives in Europe is questionable. But nor was this its aim. It set out to advise on work-related stress rather than on stress prevention. This was made clear in the introduction, which said that a general framework for action was being offered (in fact, this amounted to less than 15% of the total length of the book).

It also has to be said that the limited distribution and different language versions of the guidance may have held back its dissemination and impact at national level.

Stress recognition in Europe – See you in court !

Both the Commission's Guidance on work-related stress and the Report on work-related stress[11] put out by the European Agency for Safety and Health at Work refer to manifestations of ill health and specific disorders associated with stress, including coronary heart disease, musculoskeletal disorders, gastrointestinal diseases, anxiety and depressive disorders and even suicide.

No country in Europe lists stress-related illnesses in its official schedule of occupational diseases. In Italy, new legislation passed in 2000 to reform the INAIL[12] provides that protection against workplace accidents and work-related illness should be extended to include 'biological damage', meaning psycho-physical harm to the worker. In countries with a mixed recognition system, compensation may still be available for a non-scheduled disease if work-related causality can be established. Theoretically this could apply to stress-related diseases. The only way to obtain recognition for stress related to psychosocial factors in other countries, also considering the differences in national compensation systems, is through the courts (e.g., the UK, Italy and Ireland) or through the public health system via a claim for invalidity (the Netherlands).

This is illustrated by two recent court cases. In October 2000, an Italian court granted a worker compensation for a heart attack caused by overwork, which was considered as an occupational accident. In the UK, in May 2001, two council workers were awarded 174,000 euros (£111,000) compensation for stress-related illnesses caused by overload due to staff shortage, insufficient training and no recuperation opportunities at work.

The European Recommendation for a schedule of occupational diseases does not include stress-related diseases. In its recent proposal for an amendment[13], the Commission said that, rather than include them in the list, research should be promoted into disorders of a psychosocial nature.

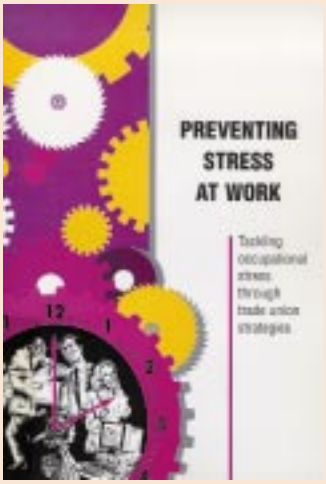
Stress prevention – A trade union priority

Trade unions were active on stress prevention long before the European Guidance was published. In some countries, especially in southern Europe, trade unions still regard traditional risks, like chemical and safety hazards, as their basic priorities. But there is a growing acceptance of the contribution of stress to occupational accidents

[11] Tom Cox, Amanda Griffiths, *et al.*, *Research on work-related stress*, Institute of Work, Health & Organisations, University of Nottingham, Office for Official Publications of the European Communities, 2000.

[12] National Institute for Insurance Against Workplace Accidents (Instituto Nazionale per l'Assicurazione degli Infortuni sul Lavoro), http://www.inail.it. The revising legislation can be found in Italian in : http://www.minlavoro.it /norme/13.

[13] Updating of the European schedule of occupational diseases (Commission recommendation 90/326/EEC of 22 May 1990). Commission proposal (DG EMPL/D/5).



and diseases, so stress and stress-related factors are gaining increasing importance and rising up the trade union agenda.

Trade union initiatives across Europe have been basically **information-spreading activities**, through the publication of material, releasing CDs, training, information days and regional campaigns.

Trade unions working with experts have developed guides and screening procedures for identifying psychosocial risks and workplace intervention (Spain, Austria, Denmark), and carried out sectoral and cross-sectoral studies (France, Belgium, Denmark, Germany, Sweden, Spain, Finland, Greece, Portugal). In Belgium, for example, the FGTB carried out a large-scale cross-sectoral survey[14] in 1999 that involved 214 enterprises and 13 sectors, receiving almost 10,000 responses. The ten basic causes identified for stress were: lack of personnel, high demands on quality, non-replacement of employees on sick leave, systematic medical checks on workers on sick leave that showed lack of trust, no scope for intervening on production methods, no promotion prospects, and a generally uncertain future.

More innovative initiatives include the development of software, the 'Workload barometer' (Quick Scan Werkdruk 3.0[15]) based on a scientifically validated assessment method for workload (Netherlands). Also observatories have been set up to monitor cases of stress and bullying at the workplace (Italy, France). Finally, trade unions have developed expert counselling and support services for workers affected by psychological harassment in particular (Austria, Netherlands, Luxembourg).

Very few trade unions took a holistic approach to stress prevention; most focused on psychological harassment or workload in line with their national legislative provisions on prevention.

Stress does not discriminate – it can affect workers in **all sectors of industry**. Traditionally, white-collar unions have been more active on stress prevention. Sectoral surveys carried out by trade unions in Europe have basically looked at health care, office work and banking, transport, retail and education. But the growth of time pressures across a wide range of sectors in Europe has focused the efforts of different industry unions on stress prevention. For example, the German metalworkers union (IG Metall) has been running a vigorous campaign for two years with the telling title: "The company: A place of crime - Psychological loads - A terror for the soul". In Spain, ISTAS - the research institute affiliated to CC.OO – carried out qualitative research[16] into stress at work and psychosocial factors two years ago. The project identified nine sectors/occupations as especially stressful, namely: retail workers, transport workers, nurses and nurse assistants, teachers, hospitality, lean production workers, data entry employees, cashiers and attendants. In the Netherlands, a survey[17] (PhD thesis : *Stress a new trade union topic. Examples of trade union initiatives in the Dutch service sector*) on intensification of work and workload carried out by a trade union expert, examined eight service sectors - banking, retail, pharmacies, tourism organisations, printing shops and the audiovisual sector - some of which, like pharmacies, had never really been studied before. In Austria, the Federal Employees Association (BAK) set up a permanent expert advisory body for the railway unions to deal with issues of job design, working time and psychosomatic health.

At European Industry Federation level, the ESF (European Transport Workers Federation) launched a European "fatigue kills" campaign as part of an international campaign on working and driving hours in road transport. Time pressure and just-in-time delivery, as a result of fierce competition in the sector, was held to be a major source of stress and cause of accidents. Also a special campaign was launched to tackle bullying and abuse of women, who are often a minority in the transport sector. A civil aviation campaign - "Zero Air Rage" - was also launched in 2000 focused on aggressive and dangerous passengers. The European Federation of Public Service Unions (EPSU) has launched a campaign on the implementation of the working time directive in the health care area, with a special focus on doctors in training. According to the campaign 'Strengthen the EU Working Time Directive : Stop dangerous operations in the workplace', long hours often result in stress-related illness which also endangers patients.

In some countries - notably Belgium, Denmark, Germany, the Netherlands, Sweden and the UK - stress is included in **collective agreements**. Most of the stress-related provisions focus more on procedural aspects (i.e., identification of stressors, carrying out surveys) than setting clear obligations for employers or objectives for stress reduction (with some exceptions, like the Netherlands). The few existing collective agreements deal with aspects that are already covered by national regulations. The trade unions aim to take action on psychosocial risk factors by introducing provisions on relevant aspects of work organization (workload and intensity of work, working time, breaks and rests).

[14] *Guide de campagne: Comment la charge de travail se transforme-t-elle en stress ?*, Octobre 1999, La Centrale générale FGTB.

[15] Reference books : H. Pennock, E. Brouwer, *Werkdruk: van plan van aanpak tot implementatie*.
V. Vrooland, M. Wilders, *Werkdruk voor ondernemingsraden: succes en faalfactoren*.

[16] *Identification de factores de riesgo psicosocial en distintos colectivos*, ISTAS, 2000.

[17] J. Warning, *Werkdruk nieuw vakbondsthema*, Zeist, Uitgeverij Kerckebosch, 2000. (Reference documents : Summary in English by the author, Belgian report on this study, French translation by Marianne De Troyer, ULB.)

International activities – ILO and 'SOLVE'

ILO has recently launched the 'SOLVE' training package under the SafeWork program to address psychosocial problems at work. SOLVE treats stress, tobacco, alcohol & drugs, HIV-Aids and violence at work as inter-related aspects that can influence workers' health.
SOLVE wants companies to bring in a comprehensive policy to address all these issues. The ILO argues that reducing or eliminating one can reduce the incidence and severity of others. Special modules for preventive action - 'Microsolves' - are being developed to target each of the five identified areas of SOLVE.
So far, seven modules are planned for preventing sexual harassment, negative stress and discrimination against HIV-positive workers in manufacturing industry.
Modules covering other sectors and areas will be developed in the coming years.
The inter-relations between these areas are not made clear in the ILO project. This could lead to misconceptions and endorsement of an individual-focused policy to address psychosocial issues that are linked to work organisation.

For more details, contact : International Labour Office, InFocus Safework, 1211 Geneva 22, Switzerland, Tel.: +41-22-7996715, Fax : +41-22-799-6878, http://www.ilo.org/safework

Trade Union publications on stress prevention

Belgium
- *Harcèlement au travail. Une réponse syndicale*, Brussels, FGTB, 2002, 48 p.
- *Stress, agir pour le bien-être au travail*, Brussels, FGTB, 1999, 80 p.

Germany
- *Runter mit dem Dauerstress !*, Frankfurt-am-Main, IGM, 2000, 38 p.
- Pickshaus, K., Schmitthenner, H., Urben, H., *Arbeiten ohne Ende*, IGM, 2001.

Netherlands
- Popma, J., *Stress, well-being and the Framework Directive. The Dutch Experience*, Brussels, TUTB, 1998, 32 p.
- Warning, J., *Werkdruk nieuw vakbondsthema*, Zeist, Uitgeverij Kerckebosch, 2000, 354 p.

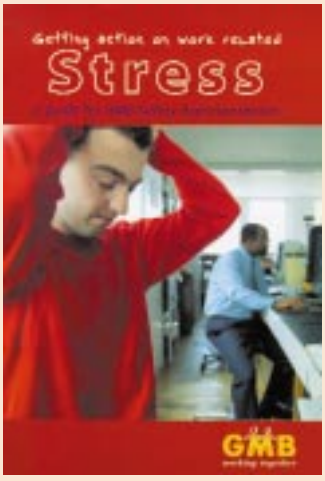
Italy
- Salerno, S., Tartaglia, R., Maremmani, R., *Pesare il carico mentale per prevenire la fatica mentale*, IIMS, INAIL, ISPESL, CGIL, CISL, UGL, UNIONQUADRI and CONFAGRICOLATURA, 2000, 27 p.

Ireland
- Armstrong, J., *Workplace stress in Ireland*, Dublin, ICTU, 2001, 32 p.

Spain
- *Estrés ocupacional*, produced and published by UGT-País Valenciano.
- *Estrés laboral : guía para la prevención de riesgos laborales*, published by UGT's Confederal Executive Committee.

United Kingdom
- *Preventing stress at work: an MSF guide*, Herts, MSF, 1995, 24 p.
- Cox, T., Griffiths, A., Barlow, C., *Work–related stress in manual workers : a heavy load*, London, UNISON, 1996, 43 p.
- *Tackling stress at work: a UNISON/TUC guide for safety reps and union negotiators*, London, TUC, 1998, 20 p.
- *What makes bus driving stressful? : a survey of Sheffield bus drivers*, London, T&G, 1998, 61 p.
- *Work-related stress : an introduction*, Manchester, Union of Shop, Distributive and Allied workers (USDAW), 1999, 41 p.
- *Stress at work: a guide for UNISON safety representatives on prevention members*, London, UNISON, 2000, 21 p.
- *Working alone. A health and safety guide on lone working for safety representatives*, London, UNISON, 2000, 30 p.
- *Getting action on work related stress : a guide for GMB safety representatives*, London, GMB, 2001, 37 p.

International
- *Preventing stress at work : tackling occupational stress through trade union strategies*, Geneva, FIET, 1994, 74 p.



TUTB Questionnaire on stress prevention in Europe

The questionnaire was sent to the members of the Workers Group of the Advisory Committee on Safety and Health in March 2002 and to the European Federations in June 2002. It aimed to collect information on the national impact of the European guidance on stress, relevant trade union activities and prevention aspects and needs for future strategies including trade union problems when dealing with stress at workplaces.
At national level, responses were received from : OGB and BAK (Austria), FGTB (Belgium), CGT (France), IG Metall (Germany), FNV (Netherlands), CC.OO (Spain), UGT (Spain), SIF (Sweden) and TUC (UK).
At European Industry Federation level, responses were received from ESF and EPSU.

Coping with stress in Europe - Obstacles to prevention

Most stress prevention approaches in the EU today are oriented towards secondary (reduction of stress effects on health) or tertiary prevention (treat the resulting illness). Primary prevention is scarce in Europe.

Although various stressors, including organizational, physical, psychological and psychosocial factors, are not excluded from the scope of the **risk assessment** required by the Framework Directive (89/391/EEC), the fact is that such factors are still not being routinely included in risk assessments by health and safety committees and prevention practitioners. The EC 'Guidance on risk assessment at work'[18] published in 1996, intended to provide advice on practical aspects of the Framework Directive risk assessment, briefly turns its attention to psychological factors in Annex 1A. But the list of factors is limited, and the guidance itself, of course, does not set a mandatory minimum content for the risk assessment. It is merely a European Commission publication which does not even reflect the opinion of the Commission.
Spanish trade unions demanded the inclusion of psychosocial factors in risk assessment via the national collective agreement. Recent national regulations in Sweden and Austria gave impetus to trade unions to push for stress to be included in risk assessments.

With the odd exception, nowhere in Europe do **inspectors** generally deal with such factors, due to lack of human resources or/and insufficient training. And even where they do, very few countries actually use specific instruments or include stress data in their annual reports.

Good practice by **health and safety authorities** is thin on the ground in Europe. One example is in Sweden, where authorities have begun to proactively use the new regulations to combat stress by blocking staffing cuts in a public nursing home until a risk assessment has been done showing that the health and safety consequences will be acceptable. In the Netherlands, inspectors have since last year been using the so-called 'internal instruction' document that covers elementary aspects of stress. Similar instructions exist for aggression and violence at work and sexual intimidation. An amendment to the system of financial penalties enables them to impose a spot fine on non-compliant companies. In Denmark, inspection authorities use special assessment tools for psychosocial aspects in the education and health care sectors.

Some national authorities have set objectives for stress prevention. National covenants (tripartite agreements) in the Netherlands, for example, have set an aim of reducing the numbers confronted with high work pressure by 10% by 2003. Portugal has made reducing depression and other work organization-related psychological problems its number one objective. In its Work Environment Plan 2000–2002, Sweden's Labour Inspectorate is targeting supervisory measures on the 5% of work sites where stress is greatest.

In Finland, a national research and action program called 'Wellbeing at Work' (2000-2003) has been launched by the government involving four ministries, the social partners and other interest groups. The project aims to promote wellbeing at work and quality of life, focusing on job satisfaction and mental wellbeing. It operates on four levels: information provision, research and utilization of research findings, support and funding of development projects and legislation development and monitoring.

The **problems** that trade unions face in Europe when dealing with stress at work are many and various. Briefly - there is a shortage of knowledge

[18] *Guidance on risk assessment at work*, Luxembourg, Office for Official Publications of the European Communities, 1996.

and qualified experts, an increasing lack of workers' control over work organisation as restructuring and unemployment spread throughout Europe, and finally individualization of stress problems and reactive approaches after workers have been injured. Trade unions also feel that new forms of work organization and new technology are gradually undermining workers' dignity by violating their privacy and other fundamental rights. Employers, too, want to retain sole control over all aspects of work organization.
Trade unions consider stress and mental health as very complex subjects to deal with. They lack the official support they need to develop prevention strategies. There is also a lack of scientifically validated methods for identifying stressors at work and acting at the workplace.

The lack of recognized psychological diseases is also hindering prevention actions in Europe. Even now, stress is regarded as an individual problem caused by personality and personal factors. Current prevention strategies in Europe - where they exist - focus on individuals and rarely promote risk screening at workplaces.

Trade unions have basically identified 3 types of **future strategy** to improve stress prevention in Europe. The first comprises initiatives to improve knowledge about stress. *Knowledge among experts*, where there is a need for intensive training for prevention practitioners, workers and inspectors and development of valid methodologies and *knowledge about the effects of stress*, where more focused surveys are required.

The second comprises initiatives to get a more *binding European framework for stress prevention and recognition*. This would include mandatory, practical and more detailed - in terms of prevention aspects - EU guidelines (Austria), clarification of employers' legal duties (UK) and even a special directive for stress prevention (Greece). Trade unions also want to include diseases caused by work-related stress in the schedule of European recognized diseases (France, Portugal, Spain). This would recognize the right of affected employees to sick leave and medical services.

The third comprises initiatives to *enhance the prevention activity of workers' health and safety reps by giving them more say over work organization* and their levers of pressure (e.g., stopping work where workers' mental health is at risk, facilitating victims' compensation where the employer has not conducted a sufficient risk assessment), etc. This may require appropriate changes in the Framework Directive.

IG metall

Finally, initiatives that signal a stronger commitment by the European Institutions to combatting stress, such as setting up permanent working groups in the Advisory Committee, Dublin Foundation and Bilbao Agency, were suggested. Also, improving community within workplaces can break the isolation of workers and subsequent individualization of stress problems.

TUTB proposals for European policies

To summarize, trade unions' basic aims for stress prevention at European level should be to :

- Set concrete stress prevention obligations for employers.
- Clarify the contents of the risk assessment (include various stress factors).
- Improve legislation on ergonomics to also include mental load, psychological and psychosocial aspects (work pace, decision-making discretion, autonomy, etc.) that can lead to stress, contribute to MSD and increase the risk of accidents.
- Strengthen trade unions and workers' reps' roles and influence on work organization, especially where changes are to be made (e.g., downsizing, work intensification, etc.).
- Promote training and awareness for workers on stress-related risks at the workplace.
- Promote multidisciplinary prevention services, including psychologists.
- Establish a framework to assess and tackle risk factors for stress which is geared to primary prevention and not focused on the individual.
- Establish proactive procedures for collecting stress-related complaints at workplace level.
- Ensure workers' right to sick leave on work-related stress grounds and rehabilitation.

Some of the above objectives should be achieved by amending existing legislation or bringing in new regulations at European level. ■

The European Commission's Guidance on work-related stress : from words to action

Lennart Levi*

Introduction - Background

In the Constitution of the World Health Organization (WHO), *health* is defined as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'. There is no doubt whatsoever that working life and its conditions are powerful determinants of health, for better or for worse. The relationship works both ways. Work affects health. But health more often than not also affects a person's productivity and earning capacity as well as their social and family relationships. Needless to say, this holds true for all aspects of health, both physical and *mental*.

In 2000, the European Commission published its *Guidance on work-related stress. Spice of life or kiss of death*[1], in English, French, German, Italian and Spanish. This development had its roots in a major European Conference held in Brussels on 9-10 November 1993, on "Stress at work – A call for action", organized jointly by the European Foundation, the European Commission and the Belgian Labour Ministry, and supported by the Belgian Presidency of the Council of Ministers. The conference highlighted the increasing impact of stress on the quality of working life, employees' health and company performance. Special attention was paid to stress monitoring and prevention at company, national and European level. Instruments and policies for better stress prevention were presented and discussed. Finally, a round table on "Future perspectives on stress at work in the European Community" brought together representatives from national governments, the European Commission, UNICE, CEEP, ETUC and the Foundation.

Based on what came out of these deliberations, the Commission set up an ad hoc group to the Advisory Committee on Safety and Health on "Stress at work". The ad hoc group proposed, and the Advisory Committee endorsed, that the Commission should draw up "Guidance" in this field. The author is proud to have had a hand in the above developments.

The present situation

The many causes and consequences of work-related stress are widespread in the 15 European Union Member States. Over half the EU's 160 million workers report working at very high speeds (56%), and to tight deadlines (60%). More than a third have no influence on task order. 40% report having monotonous tasks. Such work-related "stressors" are likely to have contributed to the present spectrum of ill health : 15% of the workforce complain of headaches, 23% of neck and shoulder pains, 23% of fatigue, 28% of "stress", and 33% of backache (European Foundation, 2001), plus a host of other illnesses, including life-threatening ones.

Sustained work-related stress is an important determinant of *depressive disorders*. Such disorders are the fourth biggest cause of the global disease burden. They are expected to rank second by 2020, behind ischaemic heart disease, but ahead of all other diseases (World Health Organization, 2001). In the 15 EU Member States, the cost of these and related mental health problems is estimated to average 3-4% of GNP (ILO, 2000), amounting to approximately 265 *billion euros a year* (1998).

It is also likely that sustained work-related stress is an important determinant of *metabolic syndrome* (Folkow, 2001; Björntorp, 2001). This disorder features a combination of : accumulation of abdominal fat; a decrease in cellular sensitivity to insulin; dyslipidemia (increased levels of LDL cholesterol and triglycerides, and lowered levels of HDL cholesterol); and raised blood pressure, probably contributing to *ischaemic heart disease* and *Diabetes Type 2* morbidity.

In these ways, virtually every aspect of work-related health and disease can be affected. Such influences can also be mediated through emotional, and/or cognitive *misinterpretation* of work conditions as threatening, even when they are not, and/or trivial symptoms and signs occurring in one's own body as manifestations of serious illness. All this can lead to a wide variety of disorders, diseases, loss of wellbeing - and loss of productivity. Examples discussed in some detail in the CEC Guidance include ischaemic heart disease, stroke, cancer, musculoskeletal and gastrointestinal diseases, anxiety and depressive disorders, accidents, and suicides.

The European Commission's Guidance

What is stress ?

According to the CEC Guidance, *stress* consists of a pattern of "stone-age" reactions preparing the human organism for fight or flight, i.e., for physical activity, in response to *stressors*, i.e., demands and influences that tax the organism's adaptational

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[1] Levi, L and I.: *Guidance on Work-Related Stress. Spice of Life, or Kiss of Death?*, Luxembourg: Office for Official Publications of the European Communities, 2000.
URL : http://www.europa.eu.int/comm/employment_social/h&s/publicat/pubintro_en.htm

capacity. "Stress" comprises the common denominators in an organism's adaptational reaction pattern to a variety of such influences and demands. Stress was adequate when stone-age man was facing a wolf pack, but not so when today's worker is struggling to adjust to rotating shifts, highly monotonous and fragmented tasks, or threatening or over-demanding customers. If sustained, it is often maladaptive and even disease-provoking.

As mentioned above, health and wellbeing can be influenced by work, both positively (spice of life) and negatively (kiss of death). Work can provide goal and meaning in life. It can give structure and content to our day, week, year, and life. It may offer us identity, self-respect, social support, and material rewards. This is likely to happen when work demands are optimal (and not maximal), when workers are allowed to exercise a reasonable degree of autonomy, when the "climate" of the work organisation is friendly and supportive, and when the worker is adequately rewarded for his or her effort. When this is so, work can be one of the most important health-promoting (salutogenic) factors in life.

If, however, work conditions are characterised by the *opposite* attributes, they are – at least in the long run – likely to cause, accelerate the course or trigger the symptoms of ill health. *Pathogenic mechanisms* include *emotional* reactions (anxiety, depression, hypochondria, and alienation), *cognitive* reactions (loss of concentration, recall, inability to learn new things, be creative, make decisions), *behavioural* reactions (abuse of drugs, alcohol, and tobacco, destructive and self-destructive behaviour, refusal to seek or accept treatment, prevention, and rehabilitation), and *physiological* reactions (neuroendocrine and immunological dysfunction, such as persistent sympathotonia and/or a dysfunctional hypothalamic-pituitary-adrenal axis[2]).

Can work-related stress be prevented ?

Work-related stress can be approached on four levels - the individual worker, the work organisation, the nation, and the European Union. Whatever the target(s), conditions are usually man-made and open to interventions by all relevant stakeholders.

According to the Guidance, there is a need, at all levels, to identify work-related stressors, stress reactions, and stress-related ill health. There are several reasons for doing this : stress is a problem for workers, their work organisation and society alike; work stress problems are on the increase; it is a legal obligation under the EU Framework Directive on Health and Safety; and many of the stressors and consequences are avoidable and can be adjusted by all three parties on the labour market if they act together in their own and mutual interests.

According to the EU Framework Directive, employers have a "duty to ensure the safety and health of workers in every aspect related to the work". The Directive's principles of prevention include "avoiding risks", "combating the risks at source", and "adapting the work to the individual". In addition, the Directive indicates the employers' duty to develop "a coherent overall prevention policy". The European Commission's Guidance aims at providing a basis for such endeavours.

Based on surveillance at individual workplaces and monitoring at national and regional levels, work-related stress should be prevented or counteracted by job-redesign (e.g., by empowering the employees, and avoiding both over- and underload), by improving social support, and by providing reasonable reward for the effort invested by workers, as integral parts of the overall management system. And, of course, by adjusting occupational physical, chemical and psychosocial settings to the workers' abilities, needs and reasonable expectations - all in line with the requirements of the EU Framework Directive and Article 152 of the Treaty of Amsterdam, according to which "a high level of human health protection shall be ensured in the definition and implementation of all Community policies and activities".

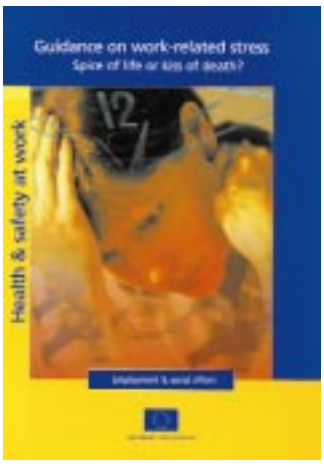
Supporting actions include not only research, but also adjustments of curricula in business schools, schools of technology, medicine and behavioural and social sciences, and in the training and retraining of labour inspectors, occupational health officers, managers and supervisors, in line with such goals.

Tools to prevent stress

To identify the existence, causes and consequences of work-related stress, we need to *monitor* our job content, working conditions, terms of employment, social relations at work, health, well-being and productivity. The CEC Guidance provides many references to checklists and questionnaires to enable stakeholders to do this. Once the parties on the labour market know 'where the shoe pinches', action can be taken to 'adjust the shoe' to fit the 'foot', i.e. to improve stress-inducing conditions in workplaces.

The Guidance argues that much of this can be accomplished through organisational changes, e.g., by :

- Allowing adequate time for the worker to perform his or her work satisfactorily.
- Providing the worker with a clear job description.
- Rewarding the worker for good job performance.



[2] Hypothalamus : a part of the brain that regulates bodily temperature and other autonomic activities; pituitary : a small endocrine gland, whose secretions control other endocrine glands; adrenal glands : two small endocrine glands, secreting cortisol, adrenaline, noradrenaline and other hormones.

- Providing ways for the worker to voice complaints and have them considered seriously and swiftly.
- Harmonising the worker's responsibility and authority.
- Clarifying the work organisation's goals and values and adapting them to the worker's own goals and values, whenever possible.
- Promoting the worker's control, and pride, over the end product of his or her work.
- Promoting tolerance, security and justice at the workplace.
- Eliminating harmful physical exposures.
- Identifying failures, successes, and their causes and consequences in previous and future health action at the workplace; learning how to avoid the failures and how to promote the successes, for a step-by-step improvement of occupational environment and health (Systematic work environment management, see below).

On a company or national level, all three parties on the labour market may wish to consider organisational improvements to prevent work-related stress and ill health, with regard to :

- *Work schedule*. Design work schedules to avoid conflict with demands and responsibilities unrelated to the job. Schedules for rotating shifts should be stable and predictable, with rotation in a forward (morning-afternoon-night) direction.
- *Participation/control*. Allow workers to take part in decisions or actions affecting their jobs.
- *Workload*. Ensure assignments are compatible with the worker's own capabilities and resources, and allow for recovery from especially demanding physical or mental tasks.
- *Content*. Design tasks to provide meaning, stimulation, a sense of completeness, and an opportunity to use skills.
- *Roles*. Define work roles and responsibilities clearly.
- *Social environment*. Provide opportunities for social interaction, including emotional and social support and help between fellow workers.
- *Future*. Avoid ambiguity in matters of job security and career development; promote life-long learning and employability.

Systematic work environment management

According to the Guidance, actions to reduce noxious work-related stress need not be complicated, time consuming, or prohibitively expensive. One of the most common-sense, down-to-earth and low-cost approaches is known as S*ystematic work environment management*. It is a self-regulatory process, carried out in close collaboration between stakeholders. It can be coordinated by, e.g., an in-house occupational health service or a labour inspector, or by an occupational or public health nurse, a social worker, a physiotherapist, or a personnel administrator.

The first step is to *identify* the incidence, prevalence, severity and trends of work-related stressor exposures and their causes and health consequences, e.g., by making use of some of the survey instruments listed in the CEC Guidance. Then, the characteristics of such exposures as reflected in the content, organisation and conditions of work are analysed in relation to the outcomes found. Are they likely to be *necessary*, or *sufficient*, or *contributory* to work-stress and stress-related ill health? Can they be changed? Are such changes acceptable to relevant stakeholders? In a third step, the stakeholders may design an integrated *package of interventions*, and implement it in order to prevent work-related stress and to promote both wellbeing and productivity, preferably by combining top-down and bottom-up approaches.

The short- and long-term *outcomes* of such interventions then need to be *evaluated*, in terms of (a) stressor exposures, (b) stress reactions, (c) incidence and prevalence of ill health, (d) indicators of wellbeing, and (e) productivity with regard to the quality and quantity of goods or services. Also to be considered are (f) the costs and benefits in economic terms. If the interventions have no effects, or negative ones in one or more respects, the stakeholders may wish to rethink what should be done, how, when, by whom and for whom. If, on the other hand, outcomes are generally positive, they may wish to continue or expand their efforts along similar lines. It simply means systematic *learning from experience*. If they do so over a longer perspective, the workplace becomes an example of *organisational learning*.

Experiences with such interventions are generally positive, not only for the employees and in terms of stress, health and wellbeing, but also for the function and success of work organisations, and for the community. If conducted as proposed, they are likely to create a win-win-win situation for all concerned.

Recent initiatives

This overall approach of the guidance on stress was further endorsed in the Swedish Presidency conclusions (2001), which said that "employment not only involves focusing on more jobs, but also on better jobs. Increased efforts should be made to promote a good working environment for all, including equal opportunities for the disabled, gender equality, good and flexible work organisation permitting better reconciliation of working and personal life, lifelong learning, health and safety at work, employee involvement and diversity in working life".

The subsequent Belgian Presidency initiated another European Conference, in Brussels on 25-27 October 2001 on "coping with stress- and depression-related problems in Europe". Based on its "conclusions", The European Council of Health Ministers in its recent "Conclusions" (2001) invited the EU Member States to "give special attention to the increasing problem of work-related stress and depression".

In its report *Mental health in Europe*, the World Health Organization (2001) similarly emphasizes that "mental health problems and stress-related disorders are the biggest overall cause of early death in Europe. Finding ways to reduce this burden is a priority". And, even more recently, the Executive Board of the World Health Organization (2002) resolved that "mental health problems are of major importance to all societies and to all age groups and are significant contributors to the burden of disease and the loss of quality of life; they are common to all countries, cause human suffering and disability, increase risk of social exclusion, increase mortality, and have huge economic and social costs".

Three complementary European approaches to work stress related ill health

An obvious interlocking question is – *how* the above objectives will be achieved ? The answer to this question is considered in three recent European documents :

- the European Commission's (CEC) *Guidance on Work-Related Stress* (2000), considered extensively above;
- the European Standard (EN ISO 10075-1 and 2) on *Ergonomic Principles Related to Mental Work Load* (European Committee for Standardization, 2000); and
- the European Commission's Green Paper on *Promoting a European Framework for Corporate Social Responsibility* (2001).

Let us consider the last two and compare their implications for the protection and promotion of occupational health and well-being.

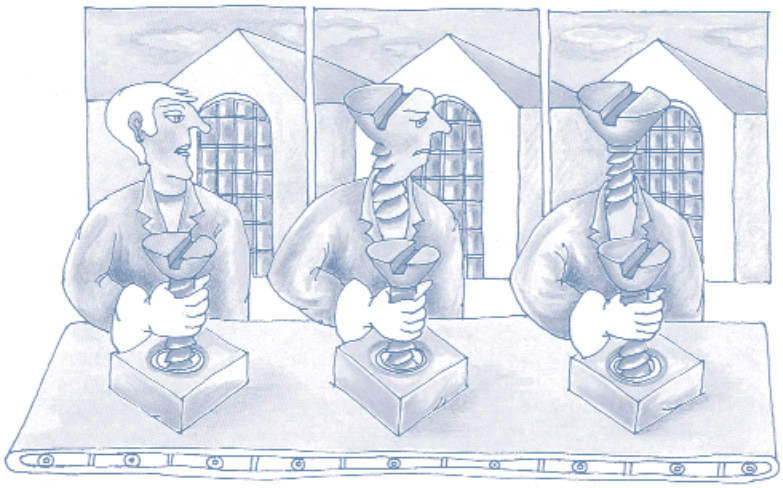
European standard on mental work load

The International series of the Standard ISO 10075, Part 1[3] and 2[4] related to mental work load have been adopted and published as *European Standards* by CEN on July and March 2000. The CEN members are thereby giving this Standard the status of a national standard without any alteration.

This Standard defines *mental stress* as "the total of all assessable influences impinging upon a human being from external sources and affecting it mentally". *Mental strain* is correspondingly defined as "the immediate effect of mental stress within the individual (*not* the long-term effect) depending on his/her individual habitual and actual preconditions, including individual coping styles". The Standard lists some "facilitating" and "impairing" (short-term) effects of mental strain. The former include "warming-up effects" and "activation", whereas the latter comprise "mental fatigue", and "fatigue-like states" such as "monotony", "reduced vigilance" and "mental satiation".

According to the Standard, the consequences of mental strain also include other consequences, e.g., boredom and feelings of being overloaded, which are, however, not dealt with in the Standard, "due to large individual variation, or to as yet inconclusive results of research". The same is said to apply to "possibly unfavourable long-term effects of repeated exposure to mental strain being either too high or too low".

In its "general design principles", the Standard emphasizes the need to fit the work system to the user, and in doing this, to utilize his or her experiences and competencies, e.g. by using methods of participation. These principles should be applied in order to influence (a) the intensity of the workload, and (b) the duration of the exposure to the workload. Personal factors, like abilities, performance capacities, and motivation will influence the resulting workload. Accordingly, the work system design starts with a function analysis of the system, followed by function allocation among operators and machines, and task analysis, and results in task design and allocation to the operator.



Dipl.-Grafik-Des. A. Rößler, *in Gesundheitsschutz* 20, Bundesanstalt für Arbeitsschutz und Arbeitsmedizin, 1999

The Standard points out that mental workload is not a one-dimensional concept but has different qualitative aspects leading to different qualitative effects. The Standard provides guidelines concerning fatigue, monotony, reduced vigilance, and satiation. It presents their determinants in considerable detail and exemplifies them.

[3] EN ISO 10075-1: Ergonomic principles related to mental work-load- Part 1: General terms and definitions.

[4] EN ISO 10075-2: Ergonomic principles related to mental work-load- Part 2: Design principles.

Corporate Social Responsibility in Europe

The European Round Table of Industrialists (ERT, 2001), commenting on the European Commission's (2001-a) Green Paper on *Corporate Social Responsibility, concludes that healthy, profitable, forward-thinking companies have a key contribution to make to the Lisbon goal of Europe becoming the "most competitive and dynamic knowledge-based economy in the world" by 2010*. Such companies have recognised that, in order to operate successfully, they must satisfy the three elements of sustainable development : financial, environmental and social. According to ERT, this is the essence of what might most accurately be referred to as responsible corporate conduct, rather than "Corporate Social Responsibility", the term used by the European Commission. Failure to satisfy the three elements would lead, over time, to terminal weakness, in terms of credibility and trust amongst stakeholders and internal organisational resources. Recognition of and respect for corporate social responsibility are therefore key to any business interested in building a healthy future for its employees, shareholders and stakeholders in general (ERT, 2001).

According to the European Commission (2001-b), the CSR concept implies that a company conducts its business in a socially acceptable way and is accountable for its effects on all relevant stakeholders. Thus, CSR raises the question of the total impact of an activity on the lives of individuals both within, and external to, the company :

- Within : recruitment and employee retention, wages and benefits, investment in training, working environment, health and safety, labour rights, etc.
- Externally : human rights, fair trading, impact on human health and quality of life, acceptable balance of benefits and disbenefits for those most affected, sustainable development, etc.

According to the European Commission's Green Paper (2001-a), the strategy's basic message is that long term economic growth, social cohesion and environmental protection must go hand in hand. This has numerous implications for companies' relations with their employees. It involves a commitment to aspects such as health and safety, a better balance between work, family and leisure, lifelong learning, greater workforce diversity, gender-blind pay and career prospects, profit-sharing and share ownership schemes. These practices can have a direct impact on profits through increased productivity, lower staff turnover, greater amenability to change, more innovation, and better, more reliable output. Indeed, a major thread throughout the paper is that companies often have an interest in going beyond minimum legal requirements in their relations with their stakeholders. Peer respect and a good name as employer and firm are highly marketable assets.

A number of other initiatives support the promotion of CSR at the global level, such as the UN Global Compact, the ILO's Tripartite Declaration on Multinational Enterprises and Social Policy, and the OECD Guidelines for Multinational Enterprises. While these initiatives are not legally binding codes of conduct for companies, they benefit (in the case of the OECD guidelines) from the commitment of signatory governments to promote effective observance of the guidelines by business.

In its invitation to discuss these issues, the Belgian EU Presidency (2001) provided a matrix clarifying the three types of responsibilities included and the four categories of actors involved.

	Managers	Workers	Consumers	Investors
Quality	Skills and Training	Workers' expectations	Economic services of general interest	Index, Disclosure, SIF
Convergence	Codes of Conduct	Human Resources Management Reports	Social Labels	Reporting and Rating Criteria
Partnership	Small and Medium Size Enterprises	Social Dialogue	Social and Ethical Clauses in Public Procurement	Pension Funds

Based on such considerations, companies could publish annual "*triple bottom line*"-reports, addressing financial, environmental and social (including health) issues.

In preparing such a bottom line, they might wish to consider the Social Index (0-100 points) – a self-assessment tool developed by the Danish Ministry of Social Affairs for measuring the degree to which a company lives up to its social responsibilities.

A comparison between the three approaches

The stress-stressor-strain concepts

The European Standard defines "mental stress" as a stimulus – generally in line with the corresponding definition in physics, as "a force that tends to strain or deform a body". The Guidance has chosen the current psycho-socio-biological stress concept originally introduced by Selye (1936), comprising the common denominators in an organism's adaptational reaction pattern to a variety of influences and demands.

According to the European Standard, stress (= the stimulus) induces "mental strain" (= the reaction). The non-specific aspects of the latter is what the Guidance refers to as "stress". The European Standard's "stress" concept equals the Guidance's concept of "stressor". It is, of course, important to point out this fundamental difference between the two sets of definitions, to avoid confusion.

Negative, positive, or neutral connotations

The European Standard emphasizes that its stress concept is regarded as neither intrinsically negative or positive. Depending on the context it can be both or neither. Similarly, the Guidance indicates that stress can be positive ("the spice of life") or negative ("a kiss of death"), depending on the context and between-individual variation.

Unfavourable long-term effects ?

The European Standard excludes consideration of possible negative long-term effects because of "the yet inconclusive results of research". The Guidance, prepared almost a decade later, takes the opposite view and presents a wide variety of negative (health) effects of long-term stressor exposures, documenting its claims. The latter evaluation is also in line with the World Health Organization's formulation that "mental health problems and stress-related disorders are the biggest overall cause of early death in Europe".

As can be easily seen, these three approaches are based on different but related paradigms. The European Commission's Guidance has its roots in workers' protection, stress medicine and psychology, and in an ecological or systems approach. The European Standard is based on ergonomics, an applied science of equipment and work process design also intended to improve overall system performance by reducing operator fatigue and discomfort, as well as ensuring their health, safety and wellbeing. And CSR has as its basic core a consideration for ethics and human rights.

The Guidance was prepared with the awareness that "one size does not fit all". It is a "pick-and-mix", a smorgasbord, from which all stakeholders are invited to choose the combination of interventions considered to be optimal in their specific setting, for subsequent evaluation. It chimes with the European Framework Directive and is aimed at preventing work-related ill health and promoting wellbeing and productivity.

The Standard is more specific about what to include, what to promote and how. It refers to all kinds of human work activity with the express aim of "fitting the work system to the user". Without overtly saying as much, it gives the impression that productivity (rather than health or wellbeing) are to be considered the primary outcome. On many points, the Guidance and the Standard overlap, both in terms of objectives and the means by which these objectives should be achieved.

The CSR initiative constitutes a much broader approach, encompassing both employee health and wellbeing and productivity, as well as economic and ecological sustainable development. Although attempts have been made to instrumentalize the CSR concept by providing quantitative and qualitative measures of targets, interventions and outcomes, there is a considerable risk of some stakeholders paying lip service to CSR without taking more than token action.

Even so, all three initiatives constitute important bases for tripartite collaboration for the promotion of high productivity, high occupational and public health and high quality of life.

To conclude : there is an urgent need for preventive measures across societal sectors and levels, aimed at promoting "the healthy job" concept, and humanising organisational restructuring. The challenge to science of all this is to find out what to do, for whom, and how, and to bridge the science-policy gap. The corresponding challenge to all other stakeholders on the labour market is to implement existing evidence in coordinated and sustainable programmes for subsequent evaluation. ■

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Violence at the workplace

Raili Perimäki-Dietrich*

Research surveys show that the many forms of violence at the workplace - long played down - are a growing problem in working life. But reliable statistics and reporting procedures are still lacking. This was a finding made as far back as 1996 in the Commission's guidance on violence at work[1] based on surveys carried out in several Member States. Eurostat reports also show that few victims report acts of violence, especially forms of psychological violence like threats and harassment. Cultural and language issues, a lack of awareness and specialized knowledge, and prejudice compound the problem. It is time to get to grips with all aspects of this issue, and take action to halt the damage to workers' health and safety.

What the Commission and Parliament are doing

At the request of the Commission's Advisory Committee, an ad hoc working group drew up an Opinion on violence at the workplace, which was adopted at the Committee's November 2001 plenary. It expresses the consensus that workplace violence in all its forms is a risk to health and safety. These situations are risks in the same way as chemicals, and so are covered by Framework Directive 89/391/EEC. This means that employers must assess, analyse and prevent these risk factors in order to protect workers in all circumstances. So it is vital for provision to be made in law which is appropriate to changed work patterns, and that these legal requirements should be carried over into national law, applied, policed and enforced.

The ad hoc working group defined violence as "a form of negative behaviour or action in the relations between two or more people, characterised by aggressiveness, sometimes repeated, sometimes unexpected, which has harmful effects on the safety, health and wellbeing of employees at their place of work".

In its Opinion, the working group calls on the Commission to "draft guidelines based on the definition of the phenomenon in all its various forms and on its inclusion among the risk factors that employers are obliged to assess under the terms of the framework Directive. A model for the assessment of the specific risk as part of the overall assessment would therefore be useful. The guideline should be based on an essentially preventive approach and therefore set out measures designed to head off the problem. The focus should therefore be on working conditions, work organisation, promoting a good working climate, and good cooperation between management and labour. Training programmes for managers and workers would be particularly useful in order to draw attention to the problem and identify the appropriate conduct to be maintained in relations with the victims of violence. While preventive measures should be the priority, they need to be accompanied by psychological and other support for the victims".

In the meantime, the European Parliament adopted a resolution[2] in September 2001 based on a report on harassment at the workplace[3]. The report points out that the problem of harassment at work is not being taken seriously enough, is often underestimated, and that only a few Member States deal with it through legislation. More must be done to put long-term, across-the-board prevention in place and assess the need for legal initiatives on preventive measures to safeguard working conditions, including against psychological harassment. Parliament calls on the Commission to put in place a real Community strategy on health and safety at work, and also to clarify or extend the scope of the Framework Directive. Risks like psychological harassment should be covered, and employers' obligations clarified and extended. The Commission is asked to publish a detailed analysis of the situation regarding harassment at work in a Green Paper and an action programme based on its analysis.

The strategy on health and safety published by the European Commission in March 2002 states that the increase in psychosocial problems and illnesses poses challenges to the health, safety and wellbeing of workers. It recognizes that the various forms of psychological harassment and violence at work require legislative action. But the Commission's action programme to implement the strategy should lay down practical measures with a roll-out plan to prevent violence at the workplace.

The forms that violence takes

Violence takes many forms, ranging from physical aggression emanating outside or inside the workplace to psychological violence and sexual harassment. All

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[1] R. Wynne, N. Clarkin, T. Cox, A. Griffiths, *Guidance on the prevention of violence at work*, European Commission, Directorate general V, Employment, Industrial Relations and Social Affairs, Luxembourg, 1997.

[2] European Parliament resolution on harassment at the workplace (2001/2339/(INI)).

[3] *Report on harassment at the workplace*, 16 July 2001, (A5-0283/2001), Rapporteur: Jan Andersson.

require different approaches, methods, actions and interventions be it as preventive measures, dealing with actual incidents, in official policing and enforcement procedures, and legislative provisions.

There is an easy consensus on what constitutes **physical violence to the person originating outside the workplace**, and how to tackle it. High-risk jobs and activities can be identified. The employers' obligations are easy to determine and enforce, e.g., implementing technical measures, reducing risks inherent in the work organization, training employees, or minimizing one-person working.

However, surveys reveal major failings in practice and wide gaps between the Member States. The likelihood of violence is seldom if ever, included in risk analyses. Employers' duties to provide information and training for workers are grossly neglected. A Finnish survey reports complaints by hotel industry workers that their fundamental rights are being trampled on, e.g. :

- being able to remove themselves from the threat of serious violence;
- seeking protection;
- calling attention and calling for help;
- capturing incidents on videotape;
- following in-service training (practical exercises).

Not by any means can the health effects of exposure to violence at the workplace be under-rated. Countless workers suffer enormous stress every day due to fear and often face intimidation. Workers may end up quitting as the only way out of this constant state of fear and exposure to danger. In the long-term, fear produces physical and psychosomatic disorders, which can in turn result in incapacity for work. The threat of violence is a health hazard in and of itself, and should be included in risk analyses. Temporary and insecure work practices stop workers standing on their rights or speaking out for fear of losing their job. All workers should be entitled to a debriefing (crisis management) after exposure to intimidation or actual violence.

Psychological violence at the workplace can take such forms as bullying, psychological harassment and negative behaviour. Such situations are still denied or dismissed as personal problems. The EP report on harassment at work and the opinion of the Advisory Committee show there is much still to do to identify and deal with this process properly.

Constant upheavals in working life are obviously a breeding ground for psychological harassment. As the surveys point out, factors include stress, under-staffing, atypical employment contracts, work build-up, poor management, inappropriate authority structures, and ignorance of the ways in which harassment takes place. The most recent EU-wide survey by the Dublin Foundation found that 9% of workers (12 million people) had suffered harassment. There are wide variations between Member States and between sectors, and these must be taken into account when designing practical preventive measures.

Imagination knows no bounds when it comes to the forms of harassment. It is not just psychological, it can also be physical or sexual, or all combined. So we cannot produce an exhaustive check-list of all situations, or leave out any types of behaviour. What counts is the effect on the individual.

Sound specialized knowledge is always necessary to deal with incidents of harassment at the workplace properly. How bullying happens is widely described in the literature, but this is not much help when dealing with practical problems. Specific methods and procedures are needed. Guidelines must be set to both prevent and address harassment situations. Multidisciplinary cooperation between the different players (employers, trade unions, occupational health institutes and inspection agencies) is vital to effectively address these problems. Agreeing on internal ground rules is another sign of progress.

The labour inspectorate and workplace health service often play a key role in helping workers. The resolution of harassment cases is beset with pitfalls. The victim may be scarred for the rest of their working life, and the harasser may become the next victim. It is worrying that labour inspectors lack the specialized knowledge, and that not all workers are catered for by the workplace health service. Workplace health and safety training in the EU varies widely between Member States. The technical knowledge is lacking to deal with harassment properly.

Sexual harassment is an even thornier issue, but we cannot just shut our eyes to the problem. It is a serious problem which affects both sexes, and is well described and defined in the Directive on equal treatment in employment and occupation (2000/78/EC). The European Parliament report also put these problems on the agenda and calls on the Commission to come to the necessary conclusions.

The tasks of enforcement agencies

Employers' legal obligations should be better policed, and penalties imposed for breaches. Employers must take preventive action, as required by the Framework Directive. They play a key role.

The workplace health and safety authorities are responsible for :

- developing ways of acting at the workplace;
- framing guidelines;
- policing the application of legislation;
- providing advice and support to employers, companies and victims of violence;
- disseminating good practice;
- developing methods for recording and collecting reliable statistics;
- enforcement policy.

Conclusion

Common guidance on violence at the workplace must be developed and the legal situation at both national and Community levels must be examined. Workers in all Member States must benefit from the same rights and protection.

There remains a job of work to do to address the problems created by the various forms of violence at the workplace. In my view, that involves close collaboration at national level with both sides of industry to resolve day-to-day problems. The occupational health and safety authorities must develop their cooperation with workplace health services.

Violence at the workplace is a growing menace which takes a considerable economic and social toll. It is an issue that must be addressed at source with preventive measures in which the EU must give a lead. ■

Psychological harassment at work and the law

Wanted : an integrated whole-workforce approach in workplace health policy

Laurent Vogel*

New legislation on psychological harassment[1] at the workplace is on the agenda in a number of EU countries. Sweden led the way with its 1993 regulations. France and Belgium have now just passed laws to stop workplace bullying. Draft legislation is in the works in countries like Spain, the United Kingdom, Portugal and Italy. In September 2001, the European Parliament adopted a resolution on the problem, calling both for national measures to combat psychological harassment and Community initiatives either through a clarification or extension of the scope of the 1989 Framework Directive or through the adoption of a specific directive.

"Psychological harassment" is not an easy concept to pin down. For one thing, it implies an ongoing process: harassing is a drip-by-drip action that builds up to cause what may seem unexpectedly serious harm when seen in relation to each individual act alone. What the adjective "psychological" does is to draw what may be a tricky line with sexual harassment, and to indicate that the harm is not chiefly to the harassee's physical integrity, although psychological harassment may include physical violence and can also seriously undermine the individual's physical health.

A successful series of books, the setting up of victim support groups in some countries, a rash of collective actions like strikes directed specifically against psychological harassment reflect two inseparable trends: the spreading dehumanisation of work, which ultimately cannot be squared with the emotional wellbeing and dignity of the workers concerned, and the way workers perceive it. Without getting ensnared in linguistic hair-splitting, the term "psychological harassment" is a useful tag for describing a common occurrence, naming a special kind of torment which is not like others forms of work-related mental upset, and for creating a pigeonhole in which to slot what are, on the face of it, a wide range of situations.

Countless explanations have been offered. From a trade union and preventive angle, psychological harassment is intimately linked to changes in work organization. To be effective, any legislative response must take account of this whole-workforce dimension. In short, before looking at "harassers" and "harassees", we need to cast a glance on changes in work organization.

Hamid suffered a serious work injury - a fall resulting in a fracture and torn ligaments - which kept him off work for a year. "When I got back, I found I had been put in No Division. I couldn't believe that I wasn't given my mechanic's job back, but instead set to doing odd jobs, which I'm still doing. My areas now are the open spaces, the waste area or just nothing, whole days doing nothing just hanging around". Hamid spends these endless days "in the big managers' and supervisors' office. They sit me on a chair at a table and act as if I wasn't there, except when they need my place. The most humiliating thing is that even then, they don't talk to me. They just tug my sleeve to make me understand that I have to move". Just like dozens of other employees who have been through the No Division system - which the strike's main achievement so far is to have got scrapped - since it was introduced.

Newspaper report from the *Journal d'Alsace* on the strike at the Daewoo factory in Mont-Saint-Martin near Longwy, 24 June 1999.

Employers back bully boy tactics

Italy's draft anti-bullying legislation has met fierce opposition in employers' circles. The human resources director of Zanussi (a subsidiary of the Swedish Ericsson Group) said in a debate organized by the Rai 2 TV station on 17 January 2000: "However unpleasant, stressful, painful and distasteful it may be, harassment is an exceptional tool for selection, the judgment of the medieval God, which strengthens and selects the best. It's learning the hard way, through fatigue and anger. In a way, harassment is what a workplace is all about (...). There is not one successful person who has not encountered and overcome harassment, and come out the stronger for it...".

* TUTB researcher

[1] "Psychological harassment" is the term most used in this article as a blanket term for all the various manifestations of what is also variously called in the literature and elsewhere "workplace bullying", "victimization", "mobbing", etc. These terms are also used where appropriate.

Psychological harassment : a whole-workforce issue to do with work organization

Are we seeing a sudden outbreak of unreasonable workplace behaviour, or is there something about work organization that is receptive to, encourages or even causes individual unreasonable behaviour? The latter possibility seems more likely.

Harassment situations can arise in non-work contexts: between family members, between neighbours, at school (between pupils, or between pupils and teachers), in a community group, sporting club or even between performers and fans. But the dynamics of these situations are very different from those of workplace harassment.

Three things bear further scrutiny here :

- The key role of domination/subordination in employment contracts: work relations are not a sphere in which free will operates. There is substantial constraint, but it is not usually abused. By and large, it has the tacit support of the workers, who find meaning, dignity and scope for self-fulfilment in their work. Psychological harassment often falls in a grey area between outright coercion by line management, and demanding support for management's objectives from the whole workforce and each individual worker.
- Time: work relations are a prime opportunity for exposure to repeated acts.
- Individuals invest much mental and emotional energy in their work, and that greatly influences workplace inter-personal relations. That is part of the reason why affronts to dignity are so upsetting.

Also, a typology of the purposes of specifically work-related psychological harassment can be worked out from empirical observation.
Personal gratification may sometimes appear to be the main aim, but others are more commonly found :

- Forcing a worker's resignation without having to go through formal dismissal procedures.
- Hitting back at a worker perceived as disrupting the company authority structure. Bullying is often used as an instrument of union-bashing nowadays.
- A workforce management strategy (management by fear, destruction of workers' collective identities and the formation of a pack mentality which will turn on any individual who in any way challenges the constraints of the work organization).

Psychological harassment and work organization

But none of the foregoing explains why workplace bullying has become such a headline-grabber. Its rapid rise as a big workplace health issue is down to changes in work organization. One backlash of the dogma of competitiveness is the creation of inter-worker and inter-departmental rivalries. It takes little working out to see that a "dog eat dog" ethos allows not to say encourages the worst kind of attitudes. Without going into these in detail[2], some aspects should be singled out :

- Autonomy held in check and collective solidarities destroyed: part of the coercion is applied directly among the workers.
- The personal commitment to work demanded by most companies means that individual needs must always take second place to the dictates of production (in the broad sense).
- Work intensification means squeezing out "idle time" (from the viewpoint of short-term financial gain) which are also spells of work-related time vital for the workers to have the work activity properly in grip.
- Work intensification causes very different illness responses in different people. Some may "crack", producing a sort of "rejection" effect among their colleagues who themselves feel under threat and end up in denial of the problems.

The Dublin Foundation's survey of working conditions finds evidence of a close correlation between new work management methods and psychological harassment. Véronique Daubas-Letourneux and Annie Thébaud have worked out a typology of work organizations based on the main survey parameters[3]. It is in what they characterize as "flexible work" situations that bullying of both men and women is rife and associated with very high levels of stress. The distinguishing features of this type of work are highly flexible working time, a profit-driven (client or user demand-focused) work pace, and quality control procedures.

Psychological harassment and social determinants

Work organization is also connected with more general social determinants which it incorporates into the way the company works. There are often close correlations between psychological harassment and these determinants.

- The gender division of labour: psychological harassment is frequently sexist even if not necessarily sexual (as to purpose). Some authors see it as part of the social

[2] For an analysis of changes in work organization, see T. Coutrot, *L'entreprise néo-libérale, nouvelle utopie capitaliste?*, Paris : La Découverte, 1998 and T. Coutrot, *Critique de l'organisation du travail*, Paris : La Découverte, 1999.

[3] V. Daubas-Letourneux, A. Thébaud, *Organisation du travail et santé dans l'Union Européenne*, Dublin, 2002 (in French only). The full text of the report is downloadable from URL : www.eurofound.ie/publications/files/EF0206FR.pdf

construction of male power and authority at the workplace. The empirical evidence is that women are more often victims of psychological harassment than men (9% against 7% according to the findings of the Dublin Foundation's survey of working conditions[4]). There is some correlation between the sectors most affected (general government, retail, banking, etc.) and the gender division of labour.

- Job insecurity: as with all other workplace health issues, casualized workers (temporary agency staff, fixed contract workers, etc.) seem less able to erect defensive strategies and are probably prime victim material. But the issue is probably less to do with their legal status than problems of breaking into the working world, or the fear of being unemployed.
- Other factors of discrimination. In France, half of all racist incidents reported to the national helpline (114 number) are work-related, against 10% involving the police or schools. Anti-gay discrimination help agencies also report that the workplace is still the main area of anti-gay and -lesbian discrimination[5]. Obviously, not all discrimination takes the form of psychological harassment, but it remains a prime way of undermining the discriminated person's position and dignity.

Swedish legislation

Sweden led the way, enacting the first regulations on psychological harassment in 1993.

The regulations set out to tackle workplace bullying as part of the employer's general prevention obligations. The 1977 Working Environment Act gave the labour inspectorate specific regulatory powers. On 21 September 1993, it enacted an Order on Victimization at Work.

The Order (AFS 1993:17) is short and to-the-point, comprising just 6 articles[6]:

- victimization is defined as "recurrent reprehensible or distinctly negative actions which are directed against individual employees in an offensive manner and can result in those employees being placed outside the workplace community";
- the employer has an obligation to organize work so as to prevent victimization;
- the employer must adopt an explicit policy against victimization;
- he must provide for the early detection of signs of, and the rectification of "such unsatisfactory working conditions, problems of work organization or deficiencies of co- operation" as can provide a basis for victimization;
- he must take counter-measures if signs of victimization become apparent (a sort of "secondary prevention");
- he must provide support to the victim, and have specific procedures for that.

In line with normal Swedish practice, the Order is coupled with a General Recommendation as guidance for the different players in interpreting the regulation and to achieve consistency of labour inspectorate practice. The General Recommendation focuses entirely on an analysis of the effects of work organization factors on the workforce.

French legislation

The communist group in the National Assembly (lower house) tabled a bill on psychological harassment at the workplace on 14 December 1999. The bill came out of the parliamentary debate on the industrial strife at the Daewoo factory in Lorraine, where management practices were revealed which were an affront to human dignity. Specifically, some employees were forced to spend entire days in solitary confinement with nothing to do, or set to drudge work like picking up cigarette ends (it was known as "being sent to No Division"!). Employees coming back from maternity, paid or sick leave were particularly victimized in this way[7]. The National Advisory Commission on Human Rights adopted an opinion on psychological harassment at the workplace on 29 June 2000 pressing for legislation. In April 2001, France's Economic and Social Council adopted an opinion which had a major influence on the legislation in the pipeline, which came into being as the Modernization of Employment Act of 17 January 2002.
The Act adds new provisions to the Labour Code, making the prevention of psychological harassment one of the employer's general health and safety obligations.

The definition of psychological harassment was the focus of a major debate. New article L 122-49 provides that "no employee shall be subjected to repeated acts of psychological harassment which are designed to or do bring about a worsening of working conditions likely to be detrimental to their rights and dignity, affect their physical or mental health, or harm their career prospects". The National Assembly had adopted a different wording which referred to "the acts of an employer, his representative or anyone abusing the authority which they hold by virtue of their position". The bill was amended by the Senate (upper house), where the abuse of authority provision was dropped, so that psychological harassment can equally be committed by someone of equal or even subordinate status to the victim.

Preventive provision is directed towards a whole-workforce approach. The employer must act against

[4] The Swedish data, which relate not to the perception of psychological harassment but purely to cases resulting in an incapacity for work, stress that most of those involved are women (around 75% in 1997-98). See: E. Menckel, "Threats, Violence and Harassment in School and Work-life" *in* S. Marklund (ed.), *Worklife and Health in Sweden* 2000, Stockholm : National Institute for Working Life, 2001.

[5] For France, see : C. Daumas, "Au bureau pour vivre gay, vivons cachés", *Libération*, 22 November 1999. For Italy, see the publications of the CGIL's "Nuovi Diritti" office, at : http://www.cgil.it/org.diritti/home-page/index.htm.

[6] The order and its associated recommendation are on the Internet in English at : http://www.av.se/english/legislation/afs/eng9317.pdf

[7] What particularly outraged public opinion about the disclosures of Daewoo's management methods was that the company had received huge official assistance grants to set up in a region hard hit by industry shakeouts.

the risk factors of psychological harassment as part of his general prevention policy. The Labour Code was amended to leave no doubt that the employer's safety obligation applied to both "physical and mental" health. Dealing with psychological harassment and proposing preventive measures falls within the remit of the health and safety committees. But the French legislation has done little to expand the role of the prevention services, merely providing that the occupational health doctor can suggest individual measures to the business manager, like transfer to another post, or appropriate changes to the job required for the worker's physical or mental health. The reason for this cursory provision is doubtless because the debate on the development of prevention services is still going on, and there is as yet no detailed regulation on the multidisciplinary composition of company health services.

The whole-workforce approach is backed up by a set of procedures to deal with individual cases. The notification procedure which employee reps can use where human rights and individual liberties are being infringed has been extended to injury to the "physical and mental health" of workers. Once the employer has been notified by an employee rep, he must immediately conduct a joint investigation with the rep and take all necessary steps to put the situation right. If he fails to do so, or the employer and rep cannot agree that there actually is a problem, the employee rep can make an emergency motion to a labour court or tribunal. The court can order any measures necessary to put a stop to the injury to health, and impose a periodic penalty payment.

A mediation procedure has also been put in place for victims of both sexual and psychological harassment. The mediator must be appointed from a list of officially-designated names and must not be associated with the company.

Victims or their trade union, with their consent, may bring a court case. Criminal penalties have been introduced. The court may stay judgement, and enjoin the employer to introduce measures specified by it, or to work out his own measures, after consulting the workers' representatives, to put a stop to the harassment.

The onus of proof is modelled on the anti-discrimination laws. The worker must establish a prima facie case of harassment. The defendant must then prove that the acts in question did not constitute harassment and are justified on grounds unrelated to harassment. This onus of proof arrangement does not apply in criminal proceedings.

FIOM Bulletin – Health and Safety

The new legislation also provides for the protection of victims and witnesses from dismissal or discrimination.

There are specific provisions for civil servants.

Belgian legislation

The Act of 11 June 2002 relates to violence, psychological harassment and sexual harassment at work. This means it has to cover a wide range of situations. In some areas, the acts covered involve relations between individuals working in the same company or workplace. In others - especially where physical violence is concerned - they will more often involve relations between workers and users, clients or simply those with access to the workplace. The Act's personal scope is also very wide. It applies to all workers (including the civil service), some school and tertiary education students, voluntary workers working under someone's authority, etc. It also applies to a limited degree to domestic staff who, in Belgium, remain excluded from the general provisions on workplace health.

The Act includes all the new provisions brought in by the Welfare at Work Act of 4 August 1996. That means that all the preventive arrangements redefined when the Framework Directive's provisions were taken over into Belgian law will now apply to psychological harassment (as well as sexual harassment and prevention of violence). This marks a clear break from past policy on sexual harassment, which favoured an individual, victim-focused approach. Experience has clearly shown how limited this type of approach is. While it may look very much akin to the French legislation, the Belgian Act is much more specific on the role of the prevention services and mediation procedures.

Psychological harassment is defined as repeated abusive conduct originating from outside or inside the company or institution which takes the form in particular of uninvited behaviour, words, intimidation, acts, gestures and writing[8] the intention or effect of which is to injure the personality, dignity or physical or psychological integrity of a worker at work, to place their employment at risk or create an intimidating, hostile, degrading, humiliating or offensive environment.

The employer must put in place arrangements to prevent violence, psychological harassment and sexual harassment, which must include at least :

- physical adjustments to the workplace;
- a statement of the provision made for victims (specifically, the relations with the complaint resolution officer and the specialized prevention adviser);
- timely, impartial investigation of the facts;
- listening to and assisting victims;
- supporting and helping victims return to work;
- line management's obligations to prevent the situations envisaged;
- information and training for workers;
- informing the committee for prevention and protection at work (C.P.P.T.).

The employer must have a prevention adviser with skills in the psychosocial aspects of work and violence at work, psychological harassment and sexual harassment on the staff of his company prevention service. Failing that, there must be a prevention adviser on the external prevention service used[9]. The specialized prevention adviser may not be an occupational health doctor.

All firms of every size, therefore, must have a specialized prevention adviser. Employers can also appoint one or more complaint resolution officers to act as "first line" players to listen to what victims have to say and attempt an informal reconciliation.

All these measures (prevention plan, appointment of a specialized prevention adviser and complaint resolution officers) require the prior agreement of the workers' representatives, who therefore have joint decision-making power in this area.

Psychological and sexual harassment

The new legislation deals with both issues in the same context and by the same procedures. This is a big step forward.
One big limitation to existing sexual harassment laws is that the approach is too narrowly focused on a relationship between two individuals in which one is trying to force the other to submit to sexual relations. But sexual harassment is also a reflection of gender relations in the workplace, which means that prevention cannot just be about giving a sympathetic hearing and support to victims, and imposing penalties on abusers. Sexual harassment rules have not so far tended to look at work organization and the collective determinants of male domination at work.
Granted, there is a difference between psychological harassment and sexual harassment in that the ultimate purpose of sexual harassment is usually personal sexual gratification. But it can also just as often be bound up with psychological harassment, not least by reinforcing the gender division of labour, which comes through very clearly in the fervid intensity of sexual harassment in extreme male dominance situations - e.g., towards domestic staff, or in traditionally male occupations like the army, police, building trades, and some male-dominated technical occupations.

A range of procedures are available. Victims may take their complaint through company internal procedures via the complaint resolution officer or specialized prevention adviser (of the company service if there is one, otherwise the external service). Or they can complain to the labour ministry's medical inspectorate either because company procedures have not worked or because the victim lacks confidence in them. If mediation does not work, redress can be sought through the courts either by the victim personally, or their trade union, or a voluntary organization. Belgian legislation also provides protection against dismissal and imposed changes in working conditions for victims who have brought a substantiated complaint. The onus of proof is very similar to that of the new French legislation. ■

[8] The Ministry of Labour's original green paper expressly referred to methods of work organization.

[9] In Belgium, all firms with fewer than 20 workers regardless of industry segment must have a company prevention service. Firms with fewer than 20 workers which do not have such a service, and those whose company service cannot fulfil all their statutory duties must belong to an external inter-company prevention service staffed by specialists in five areas (workplace health, safety, industrial hygiene, ergonomics, psychosocial workload).

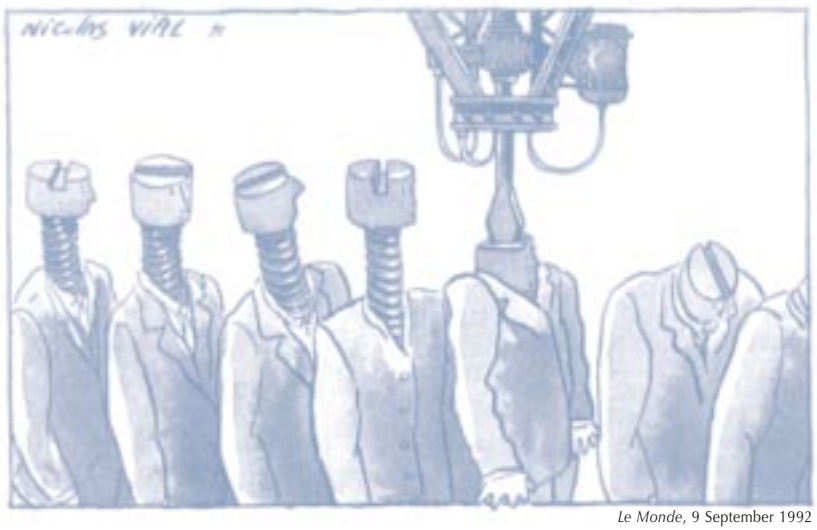
The United Kingdom's provision

English law at present makes very limited provision, as it focuses on the purely personal aspects of psychological harassment.

There are three aspects.

- The Protection from Harassment Act 1997 establishes a civil remedy (compensation for a tort) and two criminal offences in which the court can place an injunction or restraining order on the harasser. The Act does not expressly cover harassment at work, but nor does it exclude it. It gives a circular definition of harassment which makes it an offence to pursue any repeated conduct ("course of conduct") which amounts to harassment or which the harasser knows or ought to know amounts to harassment Whether the acts complained of constitute harassment is a matter for the court to decide. The Act opened the floodgates for harassment proceedings (nearly a thousand convictions in 1998 according to statistics cited by von Heussen). But an examination of the case law shows that the Act is rarely used to deal with behaviour at work. A study of 168 cases in 1998[10] found that most complaints related to the ending of an intimate relationship (43%), personal disputes (25%) or disputes over property or money (14%). Employment relationships do not feature as such (although the workplace may be involved, for example, where the intimate relationship ended was between two work colleagues).
- The Employment Rights Act 1996 contains a definition of dismissal (s 95 (1)) which treats as dismissal the employee's resignation with or without notice by reason of the employer's conduct.
- The case of Walker v. Northumberland CC (1976) is a landmark judgement on the employer's public liability for psychological disorders related to work organization.

Draft legislation to address these failings - the Dignity at Work Bill - is currently going through parliament. The bill was put together in 1997 but was blocked by the conservative government of the time. It was re-introduced in the House of Lords in December 2001. The bill does not deal with the whole-workforce or work organization-related dimensions of psychological harassment but recommends that employers should establish a policy to prevent victimization in consultation with trade union and safety reps.



Le Monde, 9 September 1992

Community legislation on the way ?

The European Parliament debated psychological harassment on the basis of a report tabled by Mr Jan Andersson written in July 2001. The report's conclusions pointed to the huge rise in psychological harassment over recent years, stressing its gender dimension and the connection with the spread of short-term contracts and growing job insecurity, and that women are more frequent victims than men of psychological harassment.
In its resolution of September 2001, the European Parliament asked the Commission to publish no later than March 2002 a Green Paper providing a detailed analysis of the situation regarding the issue of bullying at work in the various Member States and then, on the basis of that analysis, to present no later than October 2002, an action programme of measures at Community level against bullying at work. It also asked for the action programme to include a timetable.
In its Communication of March 2002 on The Community strategy on health and safety at work (2002-2006)[11], the Commission admits that psychological harassment and violence at work pose a special problem requiring legislative action. But it fails to say what form it will take, nor what timetable it has in mind.

[10] Jessica Harris, *An evaluation of the use and effectiveness of the Protection from Harassment Act 1997*, Home Office Research Study 203, London, 2000.

[11] See "Long on ideas, short on means", *TUTB Newsletter* No 18, March 2002, pp. 3-6.

Stress in Great Britain

Owen Tudor*

The diseases caused by work-related stress are the second commonest group of occupational illness in Great Britain. Every year, half a million workers (2% of the entire workforce) suffer from a condition which they believe to have been caused by stress at work. As a result, along with musculoskeletal disorders, slips and trips, falls from height and workplace transport, stress is one of the top five priority hazards which the Health and Safety Commission is addressing. Surveys by unions show that stress is the issue of greatest concern to workplace union safety representatives, surveys by employers show that stress is the main work-related cause of sickness absence, and research by the Health and Safety Executive shows that one in five workers (five million of them) experience harmful levels of stress on a fairly regular basis, with public servants experiencing the highest levels of all.

And yet stress is one of the most contentious issues in the British health and safety field, with court cases for compensation hotly contested, experts divided over the causes, its measurement and, in the most extreme cases, a raging debate about whether "stress" is a meaningful concept at all !

Background - Britain under pressure

British workers work the longest hours in the European Union, with substantial numbers of men working longer than the 48 hours laid down in the Working Time Directive. At a time when working hours have been falling across Europe, they have risen in Britain, although the situation has stabilised since the implementation of the Directive in Britain. Throughout the 1980s and 1990s, in both slumps and booms, employers have reduced the numbers of workers they employ so that fewer and fewer people are doing more and more jobs. In the public sector, a concern for the rights of customers, clients and users, at a time of tax cuts, job cuts and productivity increases have left workers who deal with the public harried and harassed (and all too often assaulted).

Undoubtedly, the working world has got faster, more frenetic, more pressurised. People are encouraged to stay at work longer, and to achieve more in the time when they are at work, or face redundancy or being passed over for promotion. There is a macho culture, especially in the financial sector, which equates long hours with commitment, and, in the evocative phrase of Hollywood's "Wall Street", claims that "lunch is for wimps".

Even part-time workers, whose hours are often restricted by the need to leave work and pick up children, face time pressures, because they have to get their work done within a set period.

By Peter Greenwood, *in Tackling Stress at Work*, UNISON/TUC, 1998

* TUC health and safety specialist and member of the Health and Safety Commission

The facts on stress

All this has prompted employers, unions and the government, to look more closely at the question of stress at work, and the illnesses that it causes.

The TUC runs a major survey of workplace union safety representatives every two years, and asks the participants each year what the main hazards of concern are in their workplaces. In each of the surveys conducted so far (1996, 1998[1] and 2000[2]), stress topped the list. The proportion of safety reps citing stress as one of the main problems in their workplace (they can pick up to five) varies from survey to survey, with a peak in 1998 of 77% (the survey sample was smaller that year) but always at least two thirds (68% in 1996, 66% in 2000).

In the 2000 survey, stress was the major concern whatever the size of firm, and in almost all sectors of the economy (except for construction, distribution and manufacturing). It was worst in the finance sector (86%), and the public sector (education – 82%, central government – 81% and local government – 73%). The main causes of stress were identified as workloads (74% of safety reps who identified stress as a problem cited this), followed by cuts in staff (53%), change (44%) and long hours (39%) – which was a particular problem in the transport sector where the Working Time Directive has not yet come into force.

One other source of union information on stress is the annual survey of compensation cases where unions sue employers for damages on behalf of

[1] Peter Kirby, *Twenty-one years of saving lives : 1998 TUC survey of safety reps*, TUC, 1998.

[2] Peter Kirby, *Trade union trends : focus on health and safety*, TUC, 2000.

[3] Owen Tudor, *Trade union trends : focus on legal services 1999*, TUC, 1999.

[4] Julia Gallagher, *Trade union trends : focus on services for injury victims 2000*, TUC, 2000.

[5] Rachel Oliver, *Trade union trends : focus on services for injury victims 2001*, TUC, 2002.

union members suffering a work-related injury or illness. Over the last four surveys (covering the calendar years from 1997 to 2000), the number of stress cases has increased substantially, from 459 in 1997 to 783 in 1998[3], 516 in 1999[4] and then a massive increase to 6,428 in 2000[5] (out of a total number of compensation cases of just over 50,000).

These figures are backed up by the more comprehensive research produced by the Health and Safety Executive, the government body responsible for health and safety enforcement and policy. Two recent pieces of research demonstrate clearly the extent of the problem.

The Scale of Occupational Stress : the Bristol Stress and Health at Work Study[6]

This research was based on the responses of about 8,000 people in the Bristol area who replied to two postal questionnaires sent a year apart. The key findings of the 3-year project were :

- about one in five workers reported feeling either very or extremely stressed by their work. The team estimate that this equates to about 5 million workers in the UK;
- there was an association between reporting being very stressed and a range of job design factors, such as having too much work to do or not being supported by managers; and
- there was an association between reporting being very stressed and a range of health outcomes, such as poor mental health and back pain; and health-related behaviours such as drinking alcohol and smoking.

Work related factors and ill health : the Whitehall II Study[7]

This research concentrated on how the design of work affected people's mental well-being and related health outcomes.
The key findings were :

- not having much say in how the work is done is associated with poor mental health in men and a higher risk of alcohol dependence in women;
- work that involves a fast pace and the need to resolve conflicting priorities is associated with a higher risk of psychiatric disorder in both sexes; and poor physical fitness or illness in men;
- a combination of putting high effort into work and poor recognition of employees' effort by managers is associated with increased risk of alcohol dependence in men, poor mental health in both sexes; and poor physical fitness or illness in women;
- a lack of understanding and support from managers and colleagues at work was associated with a higher risk of psychiatric disorder. Good social support at work, particularly from managers for their staff, had a protective effect; and
- aspects of poor work design were also associated with employees taking more sickness absence.

Finally, employer surveys such as the annual CBI (Confederation of British Industries – the main employers' association) survey of sickness absence identify stress as the main cause of workplace sickness absence amongst white-collar workers. The TUC has worked with employers' organisations (e.g. the Engineering Employers' Federation) to develop a new approach to tackling stress at work which emphasises the links between health and safety and good management[8]. This experience will be brought into the social dialogue which the European Commission plans to initiate later in 2002.

Union demands for action

As a result of these startling figures, the TUC and its affiliated unions have all been putting a great deal of effort into the issue of stress. Every union has some members who are especially at risk, which is why the issue comes through so strongly from safety rep surveys. Unions deal both with the general issue of stress, and also with specific risk factors (stressors) which can often be separated out – such as violence, bullying and working time (see below for some recent legal developments).

In response, unions have run awareness-raising campaigns, principally to draw employers' attention to the issue, and to make sure that union members know that the causes of stress are often work-related and should be prevented by management action. The issue also helps unions to identify themselves with the problems that potential members are suffering, and thus increase recruitment.

Most unions have covered the issue in their union journal, often using the harrowing tale of a member whose life and career has been wrecked, or a compensation case where the union has successfully won damages for the affected member.

Guidance has been issued by many unions, especially for safety reps, on how to approach the issue at the workplace. Some have issued checklists aimed at identifying levels of stress (including advising safety reps to use commercially available stress audit tools), the main causes in the workplace, and the things which managers can be asked to do. Training is also available, such as courses on stress and trauma in the workplace run by the GMB union.

In particular, however, unions have pressed the Health and Safety Commission to take action by

By Peter Greenwood, *in Tackling Stress at Work*, UNISON/TUC, 1998

[6] *The Scale of Occupational Stress : the Bristol Stress and Health at Work Study*, HSE Contract Research Report 265, 2000. (http://www.hse.gov.uk/research/crr_pdf/2000/crr00265.pdf)

[7] *Work related factors and ill health : the Whitehall II Study*, HSE Contract Research Report 266, 2001.

[8] A conference on "Stress Essentials : Practical Solutions that Work" was held jointly by the National Occupational Health Forum and the UK Work Organisation Network, and supported by the TUC, CBI, EEF, HSE and European Agency for Safety and Health on 23 April 2002. A press release is on the EEF website (http://www.eef.org.uk/fed/fednews/fedpressrel/fed2001/fedpr_020507) and a report is available from swalter@eef-fed.org.uk

By Peter Greenwood, *in Tackling Stress at Work*, UNISON/TUC, 1998

introducing legislation specifically dealing with stress (see below). And on the specific issue of bullying, the second largest trade union in Britain, formed at the beginning of 2002, Amicus, has been running a campaign for several years (initially by its mostly white-collar constituent, MSF) for a Dignity at Work Bill to outlaw bullying and provide legal remedies for those being bullied. The bill has recently been introduced in the upper chamber (the House of Lords) and has been agreed, although without active support from the government, it stands little chance of becoming law[9].

Legal cases : taking employers to court

Unions have used their legal services to raise the stakes, by actively pursuing cases where there is a reasonable chance of success, and then publicising the results[10].

The most famous case was taken by Britain's largest union, UNISON, and concerned a social work manager, John Walker. He was forced to do more and more work as resources were cut, and eventually had a nervous breakdown. His family doctor indicated to his management that if steps were not taken to address his problems, then he would have another breakdown. He returned to work, but his employers did not reduce his workload and the inevitable happened, leading to his early retirement and a six figure compensation bill for his local authority.

Although the number of cases coming before the courts has been small (this is true of all compensation cases – 90% of them are settled before they reach the courts), unions have a much higher rate of success than cases taken by lawyers for non-union members, mostly because unions are better at weeding out cases which are unlikely to succeed.

More recently, employers' insurers have fought back against the rising number of stress cases, and forced several to the Court of Appeal (the stage just before the highest court in the country). The Court handed down a judgment covering four cases, upholding the award in only one case, but, more importantly, setting down a number of principles which should govern future cases[11]. These principles are open to challenge as some of them seem to ignore the part that prevention should play, and others are ambiguous. But overall, they made it clear that stress-related illnesses were no different from any other occupational illness, and that they could be prevented by management action.

Legal cases : taking the government to court

Unions have also used the courts to persuade the British government, and employers with whom they deal, to take a tougher line on working time. Two examples from this year demonstrate what unions can do.

In one, a union took the British government to the European Commission for incorrect implementation of the Working Time Directive. The Commission upheld a complaint by Amicus[12], whose General Secretary, Roger Lyons, said : "British workers work the longest hours in Europe – this decision will cut excessive working time considerably, will slash stress and will bring us closer to the level playing field on working hours already enjoyed throughout the rest of Europe." The complaint covered three areas. These are in respect of the obligation for employers to ensure that workers take breaks and holidays, the measurement of time worked voluntarily over normal working time and the exclusion of night shift overtime hours from those which count towards normal hours.

Second, the union representing pub managers, the Transport and General Workers Union, has announced that it will take legal action against a chain of pubs run by the Spirit Group, who claim that pub managers are excluded from the Working Time Regulations. The union won a similar case out of court against Bass Taverns in 2000.

The response of the regulators

The Health and Safety Commission is the body in Great Britain that is responsible for legislation on health and safety (formally, decisions are taken by Ministers, but they normally rubber stamp the decisions of the Commission). The Commission is a tripartite body with three employers, three trade unionists and

[9] A briefing on recent developments in the campaign for the Bill is on the Amicus website at : http://www.msf.org.uk/cgi-bin/news/db.cgi?db=default&uid=default&ID=200&view_records=1&ww=1

[10] Compensation can also be claimed from the state under the Industrial Injuries Scheme, but this compensates mostly for stress relating to one or more discrete events, so is more applicable to post-traumatic stress disorder.

[11] An analysis of the judgment and its implications, *Stress – the Court of Appeal decides* by Owen Tudor is available at : http://www.shpmags.com/mfwt/parse.html?page=NewsArticle&ald=1460761&magContext=shp

[12] A full briefing from the union concerned is on their website at http://www.msf.org.uk/cgi-bin/news/db.cgi?db=default&uid=default&ID=190&view_records=1&ww=1

three independents, and it operates under the Health and Safety at Work etc Act 1974, which among other things requires employers to protect the health of their workers. This very general requirement is the basis for most of the existing legal provisions on stress.

The next level down from an Act of Parliament is Regulations, many of which are used to implement European Directives. Regulations are goal-setting, in that the determine what objective employers need to reach, but are not prescriptive about what they need to do to reach the objective. The main Regulations relevant to stress are the Management of Health and Safety at Work Regulations 1992 (which, broadly speaking, implement the Framework Directive). This requires employers to conduct risk assessments, and also added to the requirements for consultation with union safety reps. Both are crucial to the prevention of stress related illnesses.

In April 1999, the Health and Safety Commission published a discussion document called *Managing Stress at Work*, which sought to encourage a debate about the extent to which stress at work should be regulated[13]. Overwhelmingly (about 98%), respondents thought that **more** needed to be done to tackle stress and about 94% of respondents agreed that stress at work is a health, safety and welfare issue (i.e., that it should be dealt with by HSC/E and local authorities under health and safety law), because it can affect health and well-being. Respondents broadly supported the concept that the ideal was to prevent stress before it occurred, through the good design of work and the adoption of good management practices. It could be monitored through a range of organisational measures.

A majority of respondents (69%) thought that an ACoP[14] of the type suggested in the Discussion Document would be worthwhile, and about 87% of those thought that the outline ACoP in the Discussion Document was along the right lines. The proportions of employers and employees in favour of an ACoP were about equal. The Health and Safety Commission concluded that :

- work-related stress was a serious problem;
- work-related stress was a health and safety issue; and
- it could be tackled in part through the application of health and safety legislation.

However, to make regulatory requirements work, the Commission decided that they needed to have a firm foundation established by drawing up clear standards of management practice for controlling work-related stressors. The Commission asked HSE to produce detailed proposals for the work on these standards and therefore decided to keep the need for an ACoP under review.

The key elements of the HSC/E current approach to work-related stress are, therefore :

- to develop clear, agreed standards of good management practice for a range of stressors;
- to better equip HSE inspectors and Local Authority officers to be able to handle the issue in their routine work, for instance by providing information on good practice and advice on risk assessment and consultation in the light of the above work; and
- to educate employers through a publicity campaign, with detailed guidance[15], drawing on the findings from HSE's research and adopting a particular focus on risk assessment.

Unions continue to favour the development of an ACoP, but are currently co-operating with the three elements of the HSC/E approach, helping to draw up the management standards on a range of stressors (up to 14 have been identified), disseminating the guidance for employers and employees, and backing the plans for targeted inspections on stress.

Future developments

The next major development in stress in Britain will be the European Week of Health and Safety at Work in October, when the TUC and unions will be launching a "Stress MOT" (referring to the test that older vehicles must go through by law to remain on the road) so that safety reps can identify whether their workplace has a stress problem, and what the main issues that need to be addressed are (in particular, by asking the workforce, and producing a "stress map" of the workplace). That will be backed up by new guidance for safety reps, with a checklist of action they can take.

In addition, the TUC will be pressing the case for more access to rehabilitation for people injured or made ill at work, including those affected by mental ill-health caused by stress at work.

And lastly, unions will also be pressing the case for a new concept – the sustainable workforce – which is designed to incorporate issues like the work-life balance, working time and productivity, and borrow from the environmental movement the idea that, if we use up or "burn out" our (human) resources, they will not last, with catastrophic results for the economy and society, as well as the individuals we represent. ■

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[13] *Managing stress at work*, HSE, 1999. A summary of responses is available on the HSE website at http://www.hse.gov.uk/hthdir/noframes/stressdd.htm

[14] Approved Codes of Practice (or ACoPs) are a level below Regulations in the legal hierarchy. They lay down specific measures which employers can take which would achieve the goals set out in Regulations. Employers either have to do what is set out in the ACoP, or prove that they are doing something which achieves the same ends.

[15] HSE publications on stress are listed at : http://www.hse.gov.uk/pubns/stresspk.htm (from which each publication can be accessed electronically).

A critical review of psychosocial hazard measures[1]

The HSE has recently published a book reviewing ways of measuring workplace stressors, which it calls psychosocial hazards. It uses the term to cover a broader concept of hazards – namely, what in the workplace has the potential to harm employee well-being. The review sets out to identify the methods of measurements currently available, assess their reliability and validity, and finally to consider the utility of different methods.

Five main methods for which evidence of validity and reliability was available are closely examined. Coming mainly from the Anglo-American tradition, they are the Job Diagnostic Survey[2], Job Stress Survey[3], Karasek Demands and Control[4]/Job content questionnaire[5], the Occupational Stress Indicator sources of pressure scale[6] and the Rizzo and House measures of role conflict and role ambiguity[7]. Other methods for which less information was available are reviewed in less detail.

The review's key findings are that :

- Compared to the number of papers published on stress and measures of hazards little relevant evidence was found.
- There is limited variety in the type of hazards that are measured.
- A substantial amount of evidence is available for only one form of reliability, internal consistency, which was reasonably good.
- More evidence was available for most types of validity. But there was limited evidence for predictive validity.

Broadly speaking relatively little sound evidence was found about the reliability and validity of these measures. *Although the weaknesses of the methods examined are recognized, it is acknowledged that it is not possible to simply stop assessing psychosocial hazards until the required research is complete.*

For that reason, recommendations are made for practice and research. Organizations are recommended to make an appraisal of the aim of the assessment, consider developing their own measures, more focused on their specific characteristics, and finally, develop other ways of assessing hazards in addition to self-report questionnaires, such as observations, task analysis and reports of harms. In general more proactive measures are suggested.

As to recommendations for research, more fundamental validation research is suggested for existing measures. Development of new methods, and testing of new innovative types of measures, are also recommended. The review emphasizes the need to examine the measures of harm used, which is closely linked to the assessment of hazards that can cause harms. Finally, it points out that psychosocial hazards are not measured in isolation and should be part of a wider risk management. As a result the ultimate value of the information gathered on hazards and harms can only be assessed in this broader context.

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Managing job stress in the Netherlands

Wilmar B. Schaufeli* and Michiel A.J. Kompier**

Abstract

Compared to other countries, work pressure, sickness absence and work incapacity rates due to work-related mental problems are quite high in the Netherlands. About a decade ago, a new Working Conditions Act (WCA) was introduced that had far-reaching consequences for the way job stress is dealt with in organizations. The WCA emphasizes the central role to be played by commercially operating Occupational Health and Safety Services (OHSSs) and defines a new kind of professional – the Work & Organizational Expert – who is primarily responsible for the assessment and prevention of job stress. Recently, a number of instruments have been developed for psychosocial risk assessment that are now widely used on a regular basis in a way that is prescribed by the WCA. Preventive measures are increasingly taken by organizations in order to reduce job stress and sickness absence rates. Some 'lessons' may be learned from the Dutch approach; recommendations pertain to (1) the role of government, (2) legal recognition of psychosocial work factors, (3) the privatization of the occupational health and safety sector, and (4) evaluation of job stress prevention programs.

Introduction

The aim of this paper is to provide an overview and evaluation of recent developments and experiences in the Netherlands on the assessment of psychosocial risks at work and the prevention of job stress. The more specific objective is to answer six related questions :

1. What are the facts and figures on job stress in the Netherlands ?
2. What legal framework and national infrastructure exist for psychosocial risk assessment and stress prevention ?
3. What view do employers organizations and trade unions take of job stress ?
4. Which instruments are used to assess and evaluate job stress and psychosocial risks ?
5. What kind of preventive measures do companies take to reduce job stress ?
6. Are there lessons to be learned from the Dutch experiences ?

In order to answer these questions, information was gathered from (inter)national labour statistics, scientific books and journals, popular and professional journals, newspaper reports, and policy documents mostly from the Dutch Ministry of Social Affairs and Employment.

Job stress in the Netherlands : the facts and figures

Work pace

A recent survey sponsored by the European Commission among nearly 16,000 workers in all 15 EU member states revealed that compared to all other countries, Dutch workers experience the highest levels of work pressure (Paoli, 1997). That is, 58% of Dutch workers report that their work pace is high more than 50% of their working time, against the European average of 42%. A comparison with a similar survey (Paoli, 1992), conducted four years earlier, showed that work pressure in Europe had increased by 7% from 1991 to 1995, but even more sharply in the Netherlands – 11%. These figures are very much in line with the findings of the National Work and Living Conditions Survey carried out among a representative sample of the Dutch working population every three years from 1977 to 1989 (Houtman & Kompier, 1995). The percentage of workers who report working at a very high work pace rose steadily from 38% in 1977 to 51% in 1989; an increase of 13% in 12 years.

Work incapacity

Roughly speaking, work incapacity rates in the Netherlands are twice as high as those in other European countries like Norway, Belgium, Germany, Denmark, Sweden, and Great Britain (Stichting van de Arbeid, 1999). However, such comparisons should be approached with extreme caution since legislation, regulations, and social security systems differ greatly between countries (for an overview see Gründemann & Van Vuuren, 1997). For instance, in the Netherlands employers have to pay the first year's absence, regardless of cause. Most collective agreements provide for full pay. After one year's illness, a national compensation system comes into operation, and this guarantees compensation until recovery regardless of occupation. The compensation is paid from a premium-based social security fund and, within certain budgetary limits, is a maximum of 70% of last earnings.

Typical for the Netherlands is that almost one-third of incapacity benefit recipients are assessed as incapable of work on mental grounds. In 1998, mental health problems were the largest diagnostic group

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for work incapacity (32%), followed by musculoskeletal disorders (19%) (Stichting van de Arbeid, 1999). In addition, the size of the former group has risen sharply. In 1967 when the Dutch Incapacity Security Act was introduced, mental health problems accounted for 11% of the new incapacity benefit recipients. Ten years later, this had risen to 20% and since the early nineties the yearly rate has remained unchanged at about 30%. A comparison with other European countries shows that the percentage of people incapable of work in the Netherlands and receiving benefit on mental health grounds is much higher than in other countries: varying from twice as high in Norway to five times as high in Great Britain (LISV, 1998).

A closer inspection of these mental health cases reveals that the majority – approximately 80% – do **not** suffer from major psychopathology such as psychosis, neurosis or personality disorder, but from adjustment disorder (LISV, 1998; Van Engers, 1995). Following the International Classification of Diseases (ICD-10), these cases are labelled as 'situation dependent or exogenous reaction' and include predominantly chronic job stress and burnout.

In a Dutch study of more than 7,000 recently incapacitated employees, 53% of the respondents reported a direct clear relationship between aspects of their work and the health problems that caused their incapacity (Gründemann & Nijboer, 1998). Work aspects most frequently cited as major causes of the incapacity were physical workload (43% of respondents), mental workload (26%), and general working conditions (29%). Of those who were assessed incapable of work on mental grounds, 56% reported a direct relationship between their work and their incapacity. Another Dutch study that compared work characteristics of over 3,000 employees who were absent due to incapacity for work for 12 months or more with work characteristics of the total working population, revealed five risk factors that were three to four times more prevalent among the former group : high work pace, low job autonomy, high physical workload, unfavourable social climate, and low pay (LISV, 1998).

Sickness absence

A careful comparison revealed that sickness absence rates in the Netherlands are 50% higher than in Germany and even double those of Belgium (Prins, 1990). Another indication of relatively high job stress levels in the Netherlands is that 12% of workers' absence days is due to mental or psychological disorders, which, together with musculoskeletal disorders (13%), constitute the most frequent diagnoses (Houtman, 1997). For long-term absences of six weeks and more, this rate of mental disorders is more than twice as high (27%). Again, the vast majority (85%) do not suffer from severe psychiatric disorders but are labelled 'exogenous reaction' (Van Engers, 1995).

Costs

In 1998, the sickness absence rate was 5.6% and there are currently approximately 880,000 work incapacity benefit claimants. This accounts for 12.8% of the total workforce (CBS, 1999). From an economic perspective, sickness absence and work incapacity constitute huge benefit costs amounting to $25 billion in 1995 which corresponds to approximately 8% of the Dutch Gross Domestic Product (Gründemann & Van Vuuren, 1997).

Health-based selection processes

On the one hand, job stress – as indicated by rates of work incapacity and absence due to mental problems – is relatively high in the Netherlands. Also, high work pressure is a prominent facet of working life in the Netherlands and seems to act as a precursor of serious health problems. On the other hand, work productivity is high compared to other European countries. If hourly work productivity in industry is indexed at 100 points, productivity in France, Germany and Great Britain is 82%, 78%, and 62%, respectively (Ministry of Social Affairs and Employment, 1997). Japan and the USA come behind these European countries.

It seems that these are two sides of the same coin, suggesting that health-based selection is occurring on the Dutch labour market. Houtman and Kompier (1995) described this typical Dutch "healthy worker effect" of squeezing the least healthy workers out of the active labour force – nearly 20% of the Dutch workforce receives sickness or incapacity pensions. There are indications that employers are keen to select the healthiest and most motivated workers in order to reduce their future financial risks – so called front-door selection (Houtman, Smulders & Klein Hesselink, 1999). Consequently, the resulting work force is relatively healthy and motivated and – thus – productive.

What legal framework and national infrastructure exists ?

The Working Conditions Act (WCA)

After a 10-year period of phased introduction, the Dutch Working Conditions Act (WCA) was finally issued on 1 October 1990 as the successor to the outdated Safety Act 1934. As a result of the implementation of the EU Framework Directive in 1994, important amendments were made, and a completely new version of the WCA was brought into force on 1 November 1999 (Staatsblad 1999, p. 184). The WCA is inspired by similar Swedish legislation and defines the role of employers, employees, the works council, the Labour Inspectorate, and the Ministry of Social Affairs and Employment. In addition, the WCA provides the legal basis for the tasks and certification of Occupational Health and Safety Services (OHSS). The WCA aims to increase workplace safety levels and maintaining, and by the same token improve, workers' mental and physical health, and well-being. The Act applies to all employed persons, both in the private and public sectors, and in organizations of all sizes. The WCA goes beyond merely protecting the employee's health and safety by promoting their well-being within the company. In other words, the Act is not based on a negative definition of health (i.e., the absence of a disease), but on a positive definition (i.e., the presence of physical and psychological well-being). Finally, the WCA strongly favours collective, organization-based preventive measures over individual curative measures.

As to the psychosocial aspects of work, the WCA provides that :

- The workplace, working methods, tools, machines, appliances and other aids used, and the work content should – as far as may reasonably be required – be in accordance with the personal characteristics of the employees.
- Monotonous and repetitive work should be avoided, as far as may reasonably be required.

As far as obligations for employers are concerned, the WCA provides – among other things – that :

- An active policy by employers to foster safety, health and well-being must be based on a thorough written and regularly conducted inventory and assessment of all work-related risks, including psychosocial risk factors. The risk inventory and assessment, which should also include a plan of action to reduce risks, must be sent to the OHSS for approval.
- Employers should engage experts from OHSSs to assist in : (1) approving – or carrying out – the risk inventory and assessments as well as the plan of action; (2) social and medical guidance of sick employees (including drawing up a work resumption plan); (3) carrying out periodic medical examinations; (4) holding a working conditions surgery.

The WCA is administered by the Labour Inspectorate, which is part of the Ministry of Social Affairs and Employment. The Inspectorate may impose administrative fines on employers who contravene the WCA. Criminal proceedings may be brought against employers for serious breaches. However, rather than a negative, penalty-based approach, official governmental policy towards maintaining and implementing the WCA and preventing job stress is more positive. Examples include providing information (brochures, leaflets, magazines, videos, television programs), funding the development of instruments for assessing psychosocial risks and job stress (checklists and questionnaires), introducing a "Stress at work" policy and research program to encourage employers to make stress prevention an integral part of their common company practice, stimulating preventive programs in particular organizations (so-called examples of good practice), and disseminating knowledge through conferences, workshops, training programs, books, articles, and the internet.

Additional relevant legislation

Supplementary legislative measures were put in place in the second half of the nineties to reduce sickness absence and work incapacity rates and the financial costs associated with them. For instance, employers in a particular branch of industry must pay higher social insurance premiums when sickness absence or work incapacity rates rise in order to stimulate an active and preventive working conditions policy from their side. Furthermore, the way individual incapacity benefits are calculated has been changed. In most cases this has led to lower benefits. Accordingly, both employers and employees have to pay for the huge costs that are associated with high absence and work incapacity rates. On the other hand, financial incentives have been provided for employers to hire people with a disability or who are on work incapacity benefit.

Occupational Health and Safety Services (OHSSs)

OHSSs are independent commercial enterprises that operate in the private market by selling their services to companies. In 1998, 95% of all Dutch companies had a contract with an OHSS; the remaining 5% consist exclusively of small companies with fewer than 10 employees (Arbeidsinspectie, 1999).

In order to operate legally, OHSSs must be certified. This certificate can be obtained from private certifying companies if the OHSS meets certain legal and quality criteria. Each OHSS must employ at least one certified professional from each of the following four fields : (1) occupational medicine; (2) occupational safety; (3) occupational hygiene; and (4) work and organization. These professionals are meant to work together as a team. Many OHSSs also employ human factor specialists and work and organizational psychologists for ergonomic consultation and for individual counselling and treatment of workers, respectively.

The Work and Organizational Expert

The W&O expert is a new profession, exclusively employed in OHSSs. Training of W&O experts takes places in three post-graduate teaching facilities that have been accredited by the Ministry of Social Affairs and Employment. In 1996 about 195 W&O experts were employed by the OHSSs, which means that one expert was available for every 25,200 workers at that time (Van Wieringen & Langenhuysen, 1997). It is estimated that in 1999 about 280 W&O experts (full-time equivalents) were employed in all Dutch OHSSs, roughly one expert for every 17,500 workers.

Rather than working primarily with individual workers, the W&O expert's job is to advise management on policy issues to improve work organization. The W&O expert has four key tasks : (1) organizational advice and recommendation of measures; (2) psychosocial risk assessment; (3) implementation of organization-based measures to reduce job stress and sickness absence rates; (4) co-ordination and integration of measures – i.e. acting as a liaison between the company and the OHSS team.

What are the views of employers' organizations and unions ?

Employers' organizations

Employers tend to argue that employees nowadays have shorter working weeks than they had in the past, but suffer from self-imposed off-the-job demands (e.g. recreation activities, family obligations, sports). To clarify their point they introduced the concept of "life stress" (or life pressure), as opposed to work stress (or work pressure). Accordingly, employers would like a systematic distinction between the so-called "risque professionnel" (i.e. work-related causes) and the "risque sociale" (i.e. remaining causes) of sickness absence and work incapacity.

Generally speaking, employers tend to interpret employees' health problems, sickness and work incapacity by either pointing at the impact of the non-work situation (life stress) or by blaming factors within the individual (medicalization). Employers' organizations also want stricter medical examinations for those claiming work incapacity benefit.

Trade unions

Over the last decade, Dutch trade unions have become more active in the field of occupational stress. Recently, the largest Dutch trade union (FNV) has mounted a campaign that includes distributing information brochures on job stress and work pressure among their members. Dutch trade unions have also carried out various large-scale surveys on job stress in various branches of industry, not only to assess the scale of the problem and study the contributing factors, but also to canvass their members' suggested solutions (Warning, 2000). Furthermore, an easy-to-use instrument to analyse stress at work was developed, the so-called "Quick Scan Work Pressure" (Nelemans, 1997). Traditionally, trade unions are keen to point at the causal role of work-related factors in employees' health complaints, sickness absence and work incapacity. They stress the importance of early rehabilitation, since it has been shown that after a few weeks of sickness the prognosis for work resumption deteriorates dramatically (Schroer, 1993).

Trade unions are quite critical of the privatization of OHSSs, arguing that the private market actors (i.e. employers and OHSSs) have failed to adequately tackle job stress, sickness absence, and work incapacity. They also doubt whether OHSSs have sufficient expertise to provide proper social and medical guidance for sick employees, since the usual approach is strictly medical, emphasizing individual rather than workplace-related factors.

What instruments are used for psychosocial risk assessment ?

Assessment and evaluation of psychosocial risk factors is a key activity of the W&O expert. During the last twenty years many different instruments have been developed that are now being used by OHSSs. The most important instruments are discussed below.

Checklists

For the purpose of quickly screening the psychosocial work environment, four simple checklists have been developed (Kompier & Levi, 1994), which cover : (1) job content; (2) working conditions; (3) terms of employment, and (4) social relations at work. Sample questions that are scored in yes/no format are : "Are many tasks performed with a short work-cycle less than 1.5 minute ?" (job content); "Are there dangerous situations in the workplace ?" (working conditions); "Are workers being replaced in case of sickness absence ?" (terms of employment); "Are workers being discriminated because of their gender, age or race ?" (social relations at work). These checklists, which are administered at the company or work-team level, include between ten and twenty items that are scored individually. Since no statistical norms are available, the prevalence of psychosocial risk factors cannot be validly assessed.

One of the Dutch trade unions has also developed a checklist for psychosocial risk factors at work : the "Quick Scan Work Pressure" (Nelemans, 1997), which is particularly geared towards the assessment of quantitative and qualitative workload. The instrument, which also exists in a computerized version, has been distributed among union members for use by local works councils.

One example of an expert or secondary-level approach is the WEBA[1]-instrument (Vaas, Dhondt, Peeters & Middendorp, 1995). Its development, strongly influenced by German action theory (Frese & Zapf, 1994) and the Job Demand-Control model (Karasek & Theorell, 1990), was actively sponsored by the Ministry of Social Affairs and Employment. It is essentially a method of job analysis which is based on independent and more or less objective indicators (e.g. job descriptions, expert ratings) rather than on the worker's own subjective judgements. It assesses risks at job level and not at individual level.

One of the virtues of the WEBA-methodology is that specific interventions follow from the risk assessment and evaluation of the particular job, such as job rotation, regulation of workload, creating feedback loops, elimination of social isolation, changing the work order, and increasing participation in decision-making. The instrument gained considerable popularity : a survey held in the early 1990s found that over a quarter of all large companies had used the WEBA (Goudswaard & Mossink, 1995). However, the WEBA has also been criticized because it is rather time-consuming and because inter-rater reliabilities are quite low.

Self-reporting questionnaires

As in other countries, job stress questionnaires are fairly popular in the Netherlands, probably because they provide an efficient way to gather detailed information from relatively large groups of workers (Evers, 1995). Most Dutch questionnaires in this field contain sets of questions about various aspects of the job, including psychosocial risk factors, and possible consequences for (mental) health and well-being. By aggregating the scores of individual workers at unit or job level and comparing them with other units, or with similar jobs, relative risks can be evaluated (benchmarking). Although different questionnaires are available the most promising and widely-used instrument is the VBBA[2]-inventory (Van Veldhoven, Meijman, Broersen & Fortuin, 1997). This questionnaire has been carefully psychometrically constructed and is actively promoted by a foundation that acts as an R&D facility for most of the Dutch OHSSs. For instance, computerized data processing is offered, including comparisons with relevant reference groups. A large database is available, which to date includes over 80,000 Dutch employees, more than 1% of the total working population (Van Veldhoven, Broersen & Fortuin, 1999). The VBBA consists of four sections or modules, each of which includes various multi-item scales; (1) job characteristics (e.g., mental workload, emotional workload, work pace, physical effort, task variety, autonomy); (2) work organization and social relations (e.g., task unclarity, communication, relationship with colleagues and superior, provision of information); (3) terms of employment (e.g., pay, future job security); (4) job strain (e.g., commitment, turnover intention, fatigue, worry, quality of sleep, emotional reactions, disengagement). The first three sections include job stressors or psycho-social risk factors, whereas the final section includes stress reactions or strains.

A Dutch adaptation of the Maslach Burnout Inventory is available (Schaufeli & van Dierendonck, 2000) to assess burnout, a particular syndrome of work-related mental exhaustion. The test manual includes three versions to be used in : (1) the human services; (2) education; (3) all remaining professions. Based on clinically validated cut-off scores, employees with high (i.e. clinical) burnout levels can be identified.

Psychophysiological measures

In the mid-eighties, an ambitious project was funded by the Dutch Ministry of Social Affairs. Its aim was to develop a 'Stressomat', a toolbox to measure objective psychophysiological stress reactions, mainly cardiovascular and respiratory reactions, elicited by standardized computerized laboratory tests. The program was ended after several years due to problems with the reliability, validity and practicability of these tests.

Administrative data

Prompted from the working conditions and sickness absence legislation, all companies – sometimes assisted by their OHSS – analyse their sickness absence and work incapacity rates. In order to facilitate this, national standards for the analysis of both sickness duration and sickness frequency – including simple

[1] From the Dutch acronym WElzijn Bij de Arbeid ("Well-being at work").

[2] From the Dutch acronym Vragenlijst Beleving en Beoordeling van de Arbeid ("Questionnaire on the Experience and Assessment of Work").

tables that may be used to test for significance – have been developed (Projectgroep Uniformering Verzuimgegevens, 1996). Furthermore, handbooks and instruction manuals have been developed that combine checklists, questionnaires and analyses of administrative data (Kompier & Marcelissen, 1990), (see also next paragraph).

What preventive measures are taken ?

Government initiatives : handbook, exemplary projects, instruction manual

The Dutch government has actively encouraged preventive programs to reduce job stress and sickness absence rates in organizations. In the late 1980s, the Ministry of Social Affairs and Employment launched a comprehensive policy and research program on job stress in order to develop instruments, tools, preventive strategies, facilitate best practices, and disseminate knowledge and transfers of experience. One of the first developments was a "work stress handbook" (Kompier & Marcelissen, 1990), which provides both a theoretical and practical framework for the prevention of job stress at company level. It emphasizes a systematic and stepwise approach and an appropriate stress audit (diagnosis) as a basis for possible preventive measures. Several instruments (see above) are introduced to measure risk factors in the psychosocial work environment, and to identify risk groups and a big focus is put on planning and implementing change processes in organizations. A second government initiative was the production of a more practical instruction manual on stress prevention for the employees of three large unions (Kompier, Vaas & Marcelissen, 1990).

Also, research on job stress was funded, a national study on identifying risk factors and risk groups was carried out (Houtman & Kompier, 1995), and a national monitoring instrument on job stress and physical load was implemented (Houtman, Goudzwaard, Dhondt, Van der Grinten, Hildebrandt & Van der Poel, 1998). This instrument was administered in 1993 and again in 1995-1996 among a large representative sample of both the Dutch labour force and Dutch companies.

Finally, organization-based intervention projects were funded in order to establish examples of good preventive practice. The main aim was to develop evidence-based practical guidelines for setting up such programs, in order to encourage other organizations and branches of industry to take similar initiatives. Between 1989 and 1995, four such projects were carried out to develop, implement, and evaluate stress reduction programs in a production plant (Maes, Verhoeven, Kittel & Scholten, 1998), a general hospital (Lourijsen, Houtman, Kompier & Gründemann, 1999), a construction company (Cooper, Liukkonen & Cartwright, 1996; pp. 25-48), and in three community mental health centres (Van Gorp & Schaufeli, 1996). Based on these four projects, and by way of disseminating knowledge and transferring experience, a manual was written that contains detailed guidelines on how to set up programs in organizations to reduce job stress and promote worker health (Janssen, Nijhuis, Lourijsen & Schaufeli, 1996). The manual puts forward a stepwise approach. The five steps are : (1) preparation and introduction of the project; (2) problem identification and risk assessment; (3) choice of measures and planning of interventions; (4) implementation of interventions; (5) evaluation of interventions. This stepwise approach follows the steps that are outlined in the "work stress handbook" mentioned earlier, which are also akin to those of the so-called control cycle, introduced by Cox and Cox (1993).

A recent investigation into preventive measures taken by organizations to reduce workload and job stress reveals that training (i.e. stress management and skills training) and education (i.e. didactical stress management) are used most frequently – i.e. by over 9% of all surveyed organizations (Houtman, Zuidhof & Van den Heuvel, 1998). Other measures were : introduction of team meetings (8%), alleviating the individual employee's workload (7%), training of supervisors in social leadership (7%), task rotation (5%), and task enrichment (5%). Compared to measures targeted at preventing physical strain, measures for preventing job stress were less frequent in Dutch organizations. Organizations indicated that the main reasons for taking preventive measures were to increase employee motivation and involvement (70%), and reduce absenteeism (62%). Complying with legal obligations was cited by "only" 31% of employers.

Although empirical research on organization-based interventions to prevent and reduce job stress is still quite scarce (Kompier & Kristensen, in press), substantial progress has been made over the last decade. Not only as far as studies with a quasi-experimental control-group design are concerned (for a review see Bamberg & Busch, 1996), but also with respect to "natural experiments" (e.g., Cooper, Liukkonen & Cartwright, 1996). As far as the Netherlands is concerned, ten such natural experiments were analysed using a multiple case study approach (Kompier, Geurts, Gründemann, Vink & Smulders, 1998). The results showed that in most cases, sickness absence rates were reduced and that often the financial benefits outweighed the costs of the interventions. These results suggest that stress prevention may be beneficial to both the employee and the organization. The authors conclude that five factors seem to be at the heart of a successful approach : (1) its stepwise and systematic nature; (2) an adequate diagnosis or risk analysis; (3) a combination of various measures (i.e. both work-centred and person-centred); (4) a participatory approach (i.e. worker involvement); and (5) top management support. More recently, intervention studies have also been carried out in a European context with comparable results (Kompier & Cooper, 1999).

Discussion

The purpose of this paper was to provide an overview and evaluation of recent developments and experiences in the Netherlands with respect to the assessment and prevention of job stress. In the introduction, we posed six related questions that were all addressed except for the final one. In this concluding section we will first comment on each of the five issues raised above and finally address the sixth question, i.e. what lessons might be learned from the Dutch way of managing job stress.

Job stress is a major problem in the Netherlands

It seems that, also compared to other countries, job stress is a serious social problem in the Netherlands. The experienced work pressure is high, as are sickness absence and work incapacity rates, particularly for work-related mental problems. This may be the price that a highly competitive and successful economy has to pay in terms of human costs. In recent years, however, the price of 'squeezing out'

the less healthy, less productive, and less motivated employees from the nation's labour force has become so high as to force the government into drastic action. Financial penalties have been applied to employers to reduce sickness absence and work incapacity rates, while the prevention of job stress in organizations has also been stimulated.

It is still too early to say whether these measures have been effective, although there are indications that positive initial effects in terms of reduced sickness absence and work incapacity rates have tailed off (Stichting van de Arbeid, 1999; Geurts, Kompier & Gründemann, in press). It is likewise very difficult to estimate the impact of (changes in) legislation on sickness absence figures and work incapacity figures, since Dutch society is a dynamic open system.

The comprehensive legal framework is difficult to implement

The new legal framework on working conditions which was phased in during the 1990s is based on quite modern principles such as active participation of employers and employees, and risk prevention at the source rather than merely treatment. Also, Dutch legislation embraces a positive and comprehensive health concept that is geared towards the improvement of physical health **and** the worker's well-being. This legislation has proven to be difficult to implement since it differs fundamentally from the traditional approach in occupational safety and health which is dominated by a fairly technical and medically-oriented approach focused on the individual rather than on the integrated socio-technical system in which the employee is working. It is difficult not just for professionals but for employers, too – although for quite different reasons, – to think and act along these different lines laid down by the new legislation. In a way, modern Dutch legislation on working conditions bespeaks the triumph of a multi-disciplinary approach to occupational health and safety that recognizes the unique contribution of the behavioural sciences. The clearest illustration is the introduction of a new type of professional – the Work & Organizational Expert – who is meant to play a crucial role in reducing job stress. Yet, the W&O experts – as a young and top-down institutionalized profession – are still defining their role in everyday practice. This is a difficult task in the business-like environment in which their employers, privatized OHSSs, have to operate.

Conflicting views of employers and unions

From the outset, legislation – particularly as far as psychosocial factors are concerned – has been fiercely debated, not only politically in parliament but also between employers and employees. Employers argue that the current legislation is unfair because they are held (financially) responsible for employee behaviours that are beyond their control – the so-called 'risques sociales' (social risks) like sickness absence due to personal or family problems or sports injuries. Typically, employers do recognize that psychosocial risk factors at work can be a problem, and seem to be willing to take some responsibility for the 'risques professionels' (work risks) (Houtman *et al.*, 1998). By contrast, Dutch trade unions have in recent years put much emphasis on work pressure and job stress as major themes in collective bargaining with employers (Warning, 2000).

Psychosocial risk assessment is spreading

Less than five years after the legal obligation to conduct an inventory and assessment of psychosocial risks at regular intervals came in, almost 90% of organizations with over 100 employees have complied (Arbeidsinspectie, 1999). By contrast, only about one-third of the smaller companies employing less than ten workers have done so. Despite the fact that various instruments are available for assessing psychosocial risks, there seems to be a bottleneck in using them, especially in small and medium-sized companies. The Dutch government has taken a pro-active stance in stimulating the development of various instruments as well as implementing them in practice. There seems to be a growing consensus among OHSSs on the use of one particular instrument – the VBBA self-report questionnaire. This is exemplified by a recent publication in which VBBA data on psychosocial risks and job stress collected from almost 70,000 workers between 1995 and 1999 are analysed (Van Veldhoven, Broersen & Fortuin, 1999).

Prevention of job stress is relatively rare but gaining ground

As with psychosocial risk assessment, prevention of job stress is chiefly being done by larger companies that employ 500 workers or more. A recent survey showed that the larger the company, the more measures were taken (Goudswaard & Mossink, 1995). Small companies with fewer than 10 workers are much less active. The government played an active role in funding 'best practice' projects and disseminating knowledge on the prevention of job stress. Work pressure is identified as a major risk for job stress by employers and unions alike. Despite the fact that the number of measures taken by companies to reduce job stress – mainly by reducing work pressure – is relatively low, they have become more frequent in recent years.

What lessons can be learned ?

Can we learn from the Dutch situation ? Can conclusions be drawn for the Dutch themselves as well as for other countries ? To some extent the situation in the Netherlands is unique. Industrial relations in this country are fairly harmonious, with a strong traditional emphasis upon consensus-building and co-operation between social partners and the national government. Social, administrative, and legal systems are deeply rooted in national history and culture, and as such they cannot be transplanted to other nations. Nevertheless, recommendations drawn from Dutch experiences might be helpful, since other European member states are dealing with the same European Framework Directive on Safety and Health (1994).

The role of the government

Over the years, the Dutch government has pursued an active policy towards job stress and its prevention. This not only relates to issuing modern legislation but also to stimulating its implementation by positive incentives and facilitating initiatives rather than by penalizing measures. This policy of encouragement not only raised the awareness of job stress among the general public and in organizations, but also resulted in practical products like risk assessment inventories, 'best preventive practices', and large statistical databases for identifying psychosocial risks and risk groups. Although the immediate impact of government policies on what actually happens in organizations should not be overestimated, job stress is increasingly recognized as a national problem by all parties involved (employers, employees, professionals, scientists, and government). Furthermore, a common need has evolved towards the reduction and prevention of job stress.

Lesson 1 *: An active government policy on job stress may prevent it from remaining a 'no-go area' and put it on the political and company agendas.*

Legislation and legal recognition of psychosocial work factors

In Dutch working conditions legislation, psychosocial factors are recognized as comparable to other work constraints, like physical, biological or toxic agents.

Lesson 2 *: Modern working conditions legislation should not only address traditional health and safety issues, but also psychosocial work characteristics (job content, social relations at work). Such legislation is crucial for worker protection in today's society.*

Lesson 3 *: Such legislation and a corresponding national administrative infrastructure for working conditions (OHSSs) are crucially important to stimulate organizations to take action.*

However, such a legal and administrative infrastructure is a necessary but not a sufficient precondition for guaranteeing workers' health and well-being. There may well be a distinction between theory and practice, and negative side-effects are possible (e.g., health-based selection; no tenured employment for employees with a chronic illness). Such undesirable spin-offs probably stem from the fact that employers are held responsible for the financial costs of sickness absence and work incapacity, regardless of their causes. As we have seen, in the Netherlands, no difference is made between the 'occupational risk' and 'social risk'.

Lesson 4 *: Special attention should be paid to small and medium-sized companies, which often lack special expertise for risk assessment and risk prevention. Branch organizations could probably play an energizing role here.*

Privatization of the occupational health and safety sector

Key players in the national infrastructure – the OHSSs – operate as private businesses in a highly competitive market. OHSSs find themselves in a difficult position because they are commercial organizations which depend on their customers. These customers – employers – tend to buy only those services from OHSSs which they are obliged to by law. In practice, this means that the work of OHSSs is often limited to rehabilitation for individual sick workers, rather than tackling the problems at source – i.e. at the organizational level - as is suggested by the WCA.

Lesson 5 *: Privatization of occupational health and safety services may have negative side-effects such as minimum service packages bought by employers and the stimulation of secondary instead of primary prevention.*

Research on job stress and job stress prevention

As we saw earlier, various studies have focused on the prevention of job stress. Although more such studies are clearly needed on the effects of stress prevention, there is increasing evidence that examples of good preventive practice yield positive outcomes, both for the employer and for the employee. These studies also help in identifying success factors with respect to the content of interventions and their implementation.

Lesson 6 *: For both theoretical and practical reasons, more stress intervention projects in companies need to be carried out and systematically evaluated.*

Finally, we should like to single out a positive consequence of the broad Dutch focus on job stress, i.e. a positive research climate in this field. A flourishing field of occupational health psychology has now grown up. Many universities now offer programs in occupational health psychology, and many students are enrolled in post-graduate courses. Over the past two decades, an active research community has developed, operating within a research infrastructure that includes universities and private research institutes. Data on risk assessment and job stress are gathered more or less systematically and the effects of policy measures are monitored quantitatively.

Lesson 7 *: Research and practice seem to mutually reinforce each other since scientific research may benefit from governmental and societal attention to job stress. On the other hand, government – and to a somewhat lesser extent company – policies have been influenced by research in the field.*

It remains to be seen to what extent the management of job stress in the Netherlands, which is based firmly in the notion of consensus-building between employers, employees and the government, contains useful elements – amongst others the seven 'lessons' – which can be applied in other national contexts. ■

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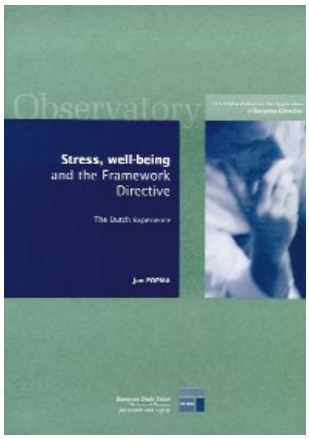

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Measuring psychosocial workload in Belgium

Hugo D'Hertefelt*

Legislation and regulation

Belgium's employment law on employee well-being took a radical change of direction with the new Welfare at Work Act 1996. The Act's explanatory memorandum calls for a focus on emerging health hazards, including work-related stress. The Act itself cites psychosocial workload as one of the seven aspects of well-being.

The Royal Decree (regulations) of March 1998 singles out psychosocial workload as an area of risk to be analysed. It is also a regulation task and area of expertise for internal and external prevention services. The regulations set their remit as: "*to contribute to and assist in the study of workload, adapting the techniques and conditions of work to the physiology of the individual, preventing physical and mental work-related fatigue, and taking part in the analysis of the causes of workload-related disorders and other work-related psychosocial factors*".

In March 1999, private sector employers and trade unions signed a collective agreement on a policy to prevent work-related stress. It cites four areas of stress risks : *job content, the physical circumstances of the job, work relations and working conditions*. The agreement sensibly allows for the *questioning* of workers to identify *whole-workforce* stress risks by cross-comparing the findings for groups of workers.

A final legislative and regulatory milestone was passed in February 2002, when Parliament passed a Welfare at Work (Supplemental) Act to make protection of workers against violence, psychological and sexual harassment in the workplace part of prevention policy.

The front-line players

Until recently, there were two mainstays to safety and health at work policy : the safety engineer and the occupational health doctor. This set-up is being thrown into question by the emerging areas of well-being constituted by ergonomics and psychosocial workload, to which other disciplines can give specialized input.

Belgium's labour inspectorate system is still based on two key pillars – the technical inspectorate and the medical inspectorate – which between them police most if not all of the technical and health aspects of work hazards.

Company prevention advisers tend to be technically trained, and so more focused on technical hazards. They are less well-versed with ergonomics, psychosocial factors and, even less so in psychological harassment at work.

For that reason, *external prevention services* must now have a risk management division as well as a medical surveillance division covering five fields of expertise or specialisms, including a prevention adviser on social aspects. Thirty-odd external services have so far been accredited to assist firms with all their statutory Welfare Act prevention responsibilities and tasks.

Some *consultants* are also active in analysing and taking remedial action on psychosocial workload. Emerging needs and demands for specialized input always create a market to which a private sector supply response develops.

Questions

There has been a spate of congresses, day conferences, seminars, information meetings, workshops and publications in recent years dealing with psychosocial factors and work-related stress. The issue is on the agenda, but fundamental questions are still going unanswered :

- What is the problem, and how big is it ?
- How to measure it ?
- What to do about it ?

This article seeks to address the first two questions, and especially to illustrate the project developed by the National Institute for Research on Working Conditions (INRCT) in cooperation with the not-for-profit organization Quest Europe to support firms in evaluating and taking remedial action on work-related stress.

Nature and size of the hazard

Risk areas

Psychosocial workload is a holistic concept, whose constituent parts will briefly be examined here.

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Por experiencia, No. 4, April 1999, ISTAS

Job satisfaction and work commitment (or the lack of them) are a first component – whether or not psychosocial needs are being satisfied. They are only fulfilled if certain features are present in the work. Two sorts of needs can be distinguished. One is the need to avoid unpleasant factors, like bad working conditions, job insecurity, unfair pay, overwork, etc. These are also called "job-extrinsic factors". Fulfilling this need leads to satisfaction; not doing so leads to the opposite – despondency. A measure of satisfaction is an essential part – but only a part – of motivation. Job-intrinsic factors are what determine motivation at work. They include, among other things, opportunities for learning, taking initiatives or deciding on how certain aspects of the work is done. If these things are there, they provide a solid basis of motivation; if not, demotivation may set in. While lack of satisfaction and motivation are known to affect both psychological health and well-being, this tradition of research has paid too little attention to their health hazards.

The health effects of **work-related stress** have come in for more study. This is the second element involved in psychosocial workload. The definition of work-related stress in the Belgian collective agreement on company stress policy is based on the World Health Organization definition, and refers expressly to "*a situation which is perceived as negative by a group of workers, which causes complaints or abnormalities that can be physical and/or social...*" This part of the definition reflects what is happening from the worker's view. The final part of the definition looks at stress as a (mis) match between demands and expectations : "*(a situation) which is caused by the fact that employees cannot meet the demands and expectations placed on them by their work situation*". These demands and expectations have been elaborated extensively by social science research. High demands and too little decision-making discretion are the root causes of ill health, especially when combined with a lack of social support. This tends to be the case with low-skilled workers and those in subordinate jobs. They have less "control" over their work and working conditions, and generally draw fewer positive stimulants like esteem, prestige or recognition from it. But too much autonomy can also create problems, which may happen with some graduate-level and/or managerial posts. Too much work autonomy can become a burden in itself.

Mental and emotional workload are two other risk areas. They present more specific types of problem. **Mental workload** refers to how information is perceived and processed when performing work. It is determined by the inherent demands of the operation, and (the limitations of) the operator's processing ability. There are clear points of contact with cognitive ergonomics here. Information processing is an essential part of many occupations and jobs involved with information and communication technology. By contrast, it is underestimated in repetitive manual work, where sensorimotor activity requires what may be a large volume of information to be processed in a very short time, when these activities also involve significant mental activity.

Emotional workload relates to the emotional reactions experienced when working in circumstances and conditions which are less than ideal or perceived as inappropriate. It is also part of "interpersonal" work, where insight into others' emotions and control over one's own are essential to doing the job properly (customer-, student-, patient-facing, etc.). This is known as "emotional work" and is inherent to many education, health care, social welfare, sales and executive jobs. The working environment has experienced a seismic shift from industrial production towards service provision. And the nature of work and the associated risks have changed with it.

Size of the risk

There is still scant information in this area. In 1994, the INRCT and the Christian mutual insurance organizations did a survey on the share of stress in **long-term absences (> 1 month)**. Around 10% of the survey population seemed to be affected by "pure" stress, meaning a serious inability to operate normally, although not suffering any clearly-identified physical illness. There were proportionately more low-skilled workers in this group than in a healthy control group. Stress is generally acknowledged to be involved in many other dis-

orders, too, like cardiovascular diseases, infections, gastric disorders, back pain, etc. It can therefore be said that, while it may not be the main cause, stress is jointly responsible for about a third of long-term sickness absences.

This finding is borne out by data on **incapacity for work or invalidity**, meaning absence from work due to sickness for more than a year. In Belgium, there are 175 000 such workers – 5% of the total private sector work force. About a third of these – 50 000 people – are incapable of working due to psychological disorders. It is the single largest category, ahead of the 44 000 people with motor disorders. The psychological disorders referred to here are acute psychiatric illnesses, but workers who feel that things are not right with them, and have been assessed that way by the control bodies.

Experiential evidence suggests that, as a **general rule**, about 10% of workers have major difficulties. They have acute problems of work-related stress and suffer regular bouts of depression because they can no longer cope and feel that work – and even more so, life – is getting on top of them. About 30% of workers are vulnerable, but still coping. Without preventive measures, they could sooner or later slip into the serious risk class. For the acutely stressed group, the main form of prevention must be damage limitation measures (tertiary prevention), like individual support and counselling. This approach is not enough for the second risk group, where measures are needed to prevent the risk (primary prevention) and/or damage (secondary prevention). Obviously, such measures cannot just be focused on the individual, but must also take work-related stress factors into account.

How to measure it ?

There are various ways of analysing it, from the standpoint of the individual or work environment, and using either objective or subjective parameters. Opinions differ about the relative merits of "objective" methods versus "subjective" methods based on the worker's own judgment.

Reliable objective methods for analysing psychosocial workload are not thick on the ground. Measuring individuals' physiological and biochemical reactions is costly and time-consuming. The results are difficult to interpret and, above all, the link with stress is not always clear-cut. Most of all, such an approach is not capable of full-scale use in the work environment. Expertise and evaluation, although clearly helpful in giving an updated list of flashpoints, must be approached with caution, due to the possibility of differential interpretation by observers.

Collecting individual opinions from workers guarantees a measure of objectivity. Questionnaires are ideally suited to such an approach. Several standardized questionnaires have been developed to measure psychosocial workload and work-related stress. In Belgium, Dutch and American questionnaires are used alongside certain Belgian models.

Participatory methods of risk analysis are often used, among other things, to evaluate and improve production quality. A group of workers draws up the list, evaluates the flashpoints, and looks for solutions. This method is also suited to determining and assessing psychosocial workload hazards.

Very often, a mix of methods gives the best results. So, a questionnaire allows relatively quick and consistent evaluation of the experiences of a large number of workers, but is only a diagnostic rather than a problem-solving tool as such. When combined with group discussion (e.g., divisional or functional), survey findings can be put to practical use and turned into priorities and measures to be taken. So it is not just about finding the best way of collecting data, but also focusing on how they are turned into practical measures.

The Quest Europe-INRCT project

In 1998, the non-profit-making body Quest Europe and the INRCT public agency decided to carry out a joint questionnaire-based survey on psychosocial workload. Quest Europe was licensed to use the VBBA[1] inventory in Belgium, while the INRCT applied itself to processing the questionnaires, creating and managing a database.

The VBBA had been developed some years previously by Marc van Veldhoven for a joint project by an external prevention service, two universities and the then Dutch Institute for Working Conditions (now TNO/Arbeid). Marc van Veldhoven reviewed 50 Dutch and international instruments for psychosocial workload and work-related stress, and came up with a sort of "greatest common denominator" of the aspects studied and the items used in these 50 check-lists and questionnaires. Then, in a development stage, he conducted surveys to test the reliability and unidimen-

[1] From the Dutch acronym Vragenlijst Beleving en Beoordeling van de Arbeid ("Questionnaire on the Experience and Assessment of Work").

sionality of the scales created. That resulted in a questionnaire which, psychometrically-speaking, was a substantial net improvement on what had gone before. He also considered inter-scale validity and validity in relation to external criteria like sickness absence. It was put out for extensive practical testing in firms and prevention services in the Netherlands.

These were all compelling arguments for the INRCT to use this tool. It has sufficient scientific credibility, and has established its credentials and use in the field. Over 100 000 workers from more than 1 000 organizations in the Netherlands have already replied to it.

The questionnaire : the VBBA

The VBBA comes in two versions: an abridged version of 108 questions divided between 14 scales, and an extended version of 232 questions distributed between 27 scales plus 42 additional questions. A scale comprises a series of questions measuring a particular aspect of psychosocial workload and work-related stress. An overview of the underlying structure and scales of the extended version is given below. The figures in brackets give the number of items in the scale concerned. The scales are given in italics.

- Job characteristics : *work pace and volume (11), emotional workload (7), mental workload (7), physical effort (7)*
- Variety : *task diversity (6), learning opportunities (4)*
- Autonomy : *task autonomy (11), participation (8)*
- Relations and communication : *relations with colleagues (9), relations with immediate superior (9), opportunities for contact (4), communication (4)*
- Job-related problems : *task unclarity (5), changes in tasks (5), information (7), problems with the work (6)*
- Working conditions : *pay (5), career opportunities (4), job insecurity (4)*
- Satisfaction : *pleasure in work (9), organizational involvement (8), turnover intention (4)*
- Strain : *need for recovery (11), worry (4), quality of sleep (14), emotional reactions at work (12), fatigue at work (16)*

All the scales connected with job characteristics, variety, autonomy, relations and communication, job-related problems and working conditions can be considered as work-related factors. These are the potential work-related stressors. The scales connected with satisfaction and strain are the individual-related factors. They are the possible reactions to stress. Because the focus is on work, a whole series of stress-related aspects were not included, like psychological personality attributes, coping, health complaints and privacy.

The time allowed to complete the questionnaire is relatively short : about 15 minutes for the abridged version and 30 minutes for the extended version. Some may still find that (too) long, but not when the amount of information received is considered. All questions on the work-related factors can be answered by *always – often – sometimes – never*. Most of the individual-related questions are *yes – no* answers.

The approach

A series of information meetings, training sessions and conferences were staged between 1998 and 2000 to familiarize company and external prevention advisers with the topic and with the VBBA as a measurement tool.

From the start of 1998, *logistical support* was stepped up. The questionnaires were tailored to client requirements, using either the extended or abridged version, or even a combination of the two, company specific data (e.g., department, function), additional questions if required, specified number of copies, etc. The questionnaires are designed to be OCR input and processed. A statistics package for social science research (SPSS) was used for analysis. A statistical report was output showing average scores for the various scales. The organization's overall average scores are compared with those of the reference file. The organization's subunits (divisions, functions, etc.) are compared to the general average.

Support all through the process rapidly proved to be essential. To begin with, this was essentially geared to the preparatory phase, i.e., how to get started. Later, the focus shifted towards clarity and accessibility of the statistical report. Later still, it turned towards follow-up, i.e., extracting feedback from the results, and especially what to do with it. Action was taken on all these points to improve the quality of support. For example, a task force named "InterVisie" set up to help psychosocial workload specialists from the various external prevention services swapped ideas throughout the process : introduction of a survey, results analysis and feedback, follow-up and remedial action.

The database

The Belgian reference file currently holds around 18 000 observations (completed questionnaires)

Por experiencia, No. 4, April 1999, ISTAS

collected in approximately 200 organizations across different sectors. The biggest single file segment (about a third) comprises observations from industry. The service (for-profit) and care sectors each account for about a quarter of the observations. The remainder come from the public sector and building industry. More than half the observations are from organizations with between 100 and 500 workers. The others are equally divided between organizations with over 500 workers, and those with under 100 workers.

The file is also functionally divided. Most observations are fairly evenly split between white- and blue-collar workers, but already over 1 000 managerial staff and just short of 2 000 care workers have answered the VBBA.

Other analytical criteria are age, educational level, type of work (day, shift, night, irregular), type of contract (permanent, temporary) and gender.

Benchmarking

Feedback of the results to firms and organizations is a service provided as part of the statutory risk analysis obligations. Risk analysis is meant to take place at three levels : organization-wide, job or function groups, and the individual. The VBBA questionnaire survey does precisely this. The results for each organization taken separately on the different scales of the VBBA can be compared to reference values in the full file or a substantial part of it, and positive or negative variances identified. Inter-subgroup positions can be compared against the organization average, making it possible to identify which functions, divisions, age groups, etc. are exposed to specific aspects of psychosocial workload. Finally, the results can also be fed back to the individual, but only at the individual's request and by a trustworthy official, usually the occupational health doctor, so that anonymity and the confidentiality of information are not in any way at risk.

The scientific survey

As well as opportunities for organizations to benchmark themselves against others, an extensive reference file offers scientific research potentials.

To start with, a major focus was put on the quality of the measurement tool and the analytical potentials. A validity survey was carried out using the French and Dutch language versions of the questionnaire to check whether the underlying concepts had been properly evaluated. The results for both versions indicated that they had.

When enough observations have been collected for the English and German versions, a similar study will be done for them.

Research was also done into ways of improving the analysis accuracy. Without going into too great detail, it is safe to say that this approach enables individuals to be allocated between risk-graded groups : acute risk, indicative risk, reduced risk and zero risk. Individual assistance and support to workers can be improved and organization-wide warnings given about the size and severity of the risks.

A file this size opens up other opportunities for working on the data. The idea is not just to test more or less long-standing models dealing with psychosocial workload in general, work-related stress and burnout in particular, but also to investigate certain high-risk groups, like older workers. Other issues can also be examined, like quality of workplace communication and relations, and their extremely negative forms – violence and psychological harassment.

Conclusion

Psychosocial workload is a new kind of problem in Belgian workplace welfare policies. Focusing on the ill effects that psychosocial factors have on workers is effective, but still not enough to ground a real prevention policy on the matter. Various milestones have already been passed. Psychosocial workload is an aspect of well-being and recent changes in the law require a bigger focus on prevention and protection against extreme forms of undesirable behaviour (harassment, violence, etc.). The new approved external prevention services have hired or appointed specialists in psychosocial workload. A new specialized approach – psychology – will claim its place in prevention. The employers' organizations and trade unions have signed a collective agreement on work-related stress policy. Researchers and consultants are offering services to analyse and take remedial action on psychosocial workload problems. The joint Quest Europe-INRCT project fits into that frame. It provides assistance on analysis of psychosocial workload for company and external prevention services, human resources departments, company management and trade unions. The file created and since expanded is helping to further inform knowledge in this area. That knowledge can and will improve understanding and solutions to the many problems involved in psychosocial workload in general and work-related stress in particular. ■

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The WOCCQ : WOrking Conditions and Control Questionnaire

The WOCCQ – *WOrking Conditions and Control Questionnaire* (I. Hansez) – is a Belgian psychosocial risk diagnostic aid developed at Liège University's Psychology of Work and Business Department (Prof. V. De Keyser). It can be used both to measure existing stress levels, and as groundwork for a prevention policy by identifying stressors in working conditions. It is a questionnaire-based method most suited to medium-sized and large firms. The basic tool consists of a questionnaire to measure control over working conditions (the WOCCQ), a standardized stress gauge, and a problem spotting guide. Other questionnaires can be added to refine the diagnosis according to the firm's specific features.

Work psychology research shows that stress develops when workers feel they lack what they need to cope with unavoidable job requirements. It can readily be imagined how the feeling of lacking control over aspects of one's work is likely to cause stress. Based on this premise, the WOCCQ evaluates workers' feelings of control over different aspects of their work, like resources, the future, work planning, task management, risks and time management. Using the findings, ideas for appropriate solutions for ways of reducing stressors can be suggested.

A workplace-specific flanking approach is also implemented, which entails getting all the different workplace actors directly involved. The kingpin of this approach is the steering committee. It is composed of company resource persons (personnel or human resources manager, workers' representatives, occupational health doctor, etc.) and supports the survey process, adapts it to the workplace, and puts in place a communication plan to ensure maximum participation by the workers.

A database (currently comprising over 8000 subjects) is being developed out of the surveys, which enables each new firm that uses it to be positioned against a reference set.

The method has received public funding both in the design (from the Federal Office for Scientific, Technical and Cultural Affairs) and promotion phases (jointly-funded by the Federal Ministry for Labour and Employment, and the European Social Fund). It has been used to acclaimed success both in Belgium and abroad, especially in France and Switzerland.

Further details of the WOCCQ from :

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A new tool for assessing psychosocial factors at work : The Copenhagen Psychosocial Questionnaire

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Background

There is as much need for valid and reliable instruments to assess exposures in the psychosocial as other areas of work environment research and practice. At the National Institute of Occupational Health (NIOH) in Denmark the Copenhagen Psychosocial Questionnaire (COPSOQ) for assessing psychosocial work environment factors has been developed in three versions: a long version for researchers, a medium-sized variant for use by work environment professionals, and a short version for workplaces. The concept as a whole has been dubbed "the three-tier concept".

In developing the COPSOQ, we set ourselves a series of goals :

- to develop valid instruments for use at different levels;
- to improve communication between researchers, work environment professionals and workplaces;
- to make national and international comparisons possible;
- to improve surveys of the psychosocial work environment;
- to improve and facilitate evaluations of workplace action;
- to make it easier to put complicated theories and concepts into practice.

Figure 1 : Dimensions and number of questions in the Copenhagen Psychosocial Questionnaire – all versions (long, medium, and short)

Dimensions	Number of questions: Research questionnaire	Medium-sized questionnaire	Short-form questionnaire	
Quantitative demands	7	4	3	
Cognitive demands	8	4		
Emotional demands	3	3	2	6
Emotion concealment demands	2	2	1	
Sensorial demands	5	4		
Influence at work	10	4	3	
Development opportunities	7	4	2	
Span of control at work	4	4	1	10
Meaningfulness of work	3	3	2	
Commitment to the workplace	4	4	2	
Predictability	2	2	2	
Role-clarity	4	4		
Role-conflicts	4	4		
Quality of leadership	8	4	2	10
Social support	4	4	2	
Feedback at work	2	2	2	
Social relations	2	2		
Sense of community	3	3	2	
Insecurity at work	4	4		4
Job satisfaction	7	4		4
General health	5	5		1
Mental health	5	5		5
Vitality	4	4		4
Behavioural stress	8	4		
Somatic stress	7	4		
Cognitive stress	4	4		
Sense of coherence	9			
Problem-focused coping	2			
Selective coping	2			
Resigning coping	2			
Number of questions	**141**	**95**		**44**
Number of scales	**30**	**26**		**8**

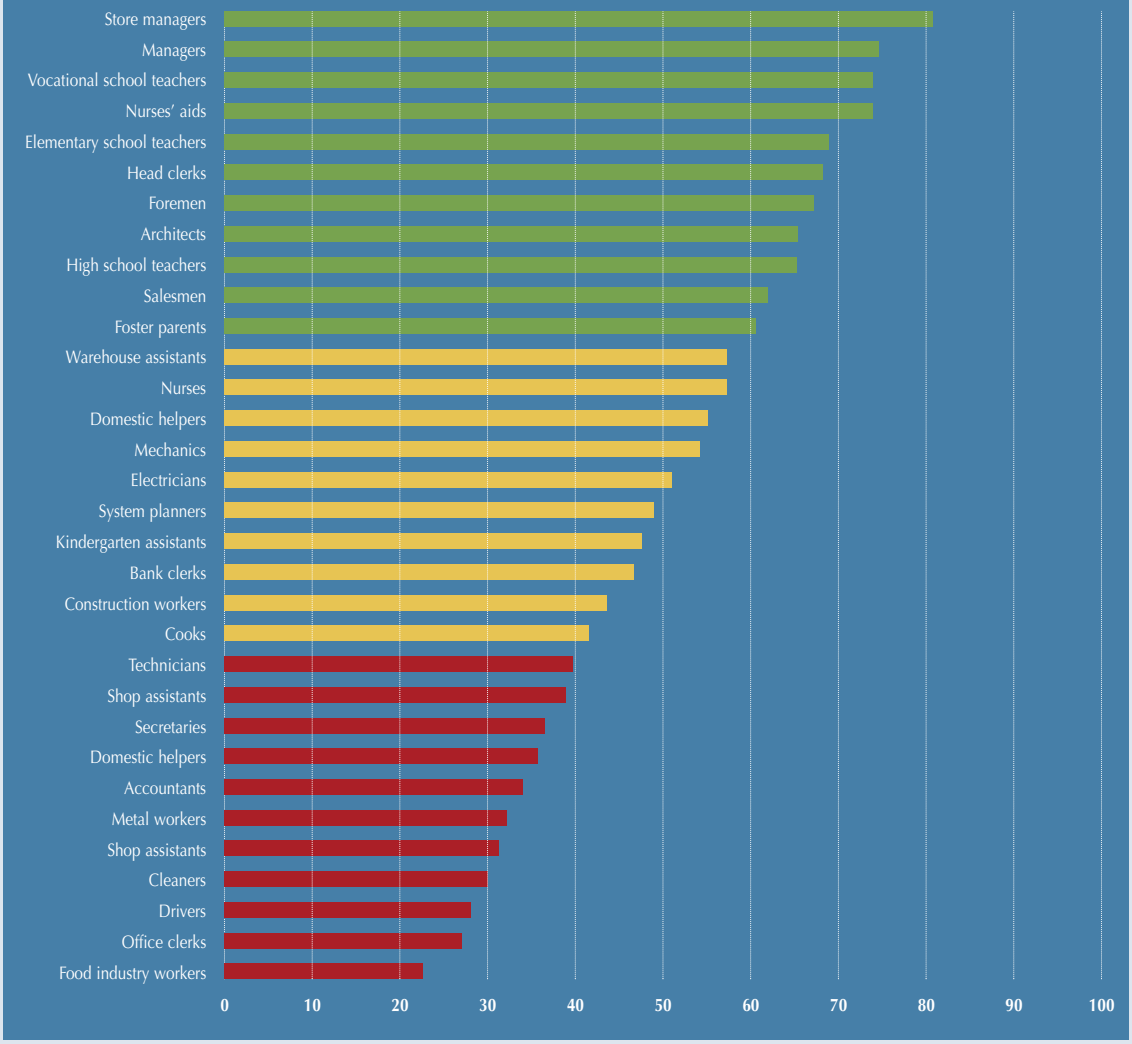
Methods

The project was rolled out in several phases. In phase one, psychosocial questionnaires from different countries were collected in order to study the different models, concepts, and questions. Sixteen questionnaires from Finland, Sweden, UK, USA, Denmark, and the Netherlands were used. Several of the questionnaires were inspirational and good quality, but none were found to be suitable for our purpose. In phase two, 145 questions were selected from the 16 questionnaires, and 20 new questions of our own were added. These 165 questions were tested empirically in a survey of a representative sample of 1858 adult Danish employees (20-60 years of age, 49% women, response rate : 62%). The responses were then analysed for internal consistency, factorial validity, missing values, and response patterns. The aim was to develop a number of scales, each based on several questions in order to improve reliability and validity of the assessments. The result was a research questionnaire with 141 questions comprising 30 different dimensions – scales – (see Figure 1).

Next, the scales were reduced in length to a maximum of 4 questions per scale (5 in some cases), and a number of scales on individual characteristics were excluded. This resulted in a medium-sized questionnaire with 95 questions and 26 dimensions. In both the long and medium-sized versions of COPSOQ, all scales run from 0 to 100 points.
Finally, the short-form questionnaire was developed by reducing both the number of dimensions and questions. It comprises 44 questions and only 8 dimensions, some of which include several of the dimensions of the longer versions (see Figure 1).

The medium-sized questionnaire for work environment professionals was developed in a computerised form in which all dimensions have a national average of 50. Values above 60 and below 40 are considered statistically divergent from the national average. Average scores are shown in yellow. Above-national-averages are shown in green, while the red bars represent below-average scores. Where the questionnaire is used to assess the psychosocial work environment of a workplace, each individual department, and the whole workplace, can be compared with the national average on all 26 dimensions. It is also possible to compare jobs, age groups, pay systems etc. This version of the questionnaire is in use by the occupational health services (OHS), occupational health clinics and private consultants. All these professionals have been able to acquire the system (including the computer software) for the moderate sum of $150. Figure 2 shows the distribution of jobs in the national sample on one of the key dimensions : Influence at work.

Figure 2 : An illustration of job distribution for one of the COPSOQ dimensions : Influence at work
(There were at least 20 respondents for each of the 32 jobs)



The short-form questionnaire can be used in workplaces not equipped with computers or even desk calculators. The points on each of the eight dimensions can be totalled manually to calculate average scores for departments or workplaces. A small pamphlet facilitates comparisons with national average values. Workplaces wanting a more precise and comprehensive evaluation are encouraged to contact work environment professionals, who can give a more detailed picture of the work environment using the medium-sized questionnaire.

Results

The three questionnaires have now been in use for about two years. Almost all OSH practitioners and many other work environment professionals in Denmark are now using the system. More than 6,000 copies of the short-form questionnaire have been distributed free of charge, and it has been downloaded from the Internet by hundreds of users. We collect no data and have no system for monitoring users. The philosophy of the concept is for users to use the system as a means for dialogue and development at the workplace.

The researchers at NIOH cannot and do not wish to dictate the use of questionnaires in practice. We have, however, developed a number of "soft guidelines" for the use of COPSOQ :

- Never start a work environment survey unless there is a firm intention to take action if indicated by the results.
- All results should be anonymous and participation completely voluntary.
- The workers should have the right to see and discuss all results.
- The results of a workplace survey should be seen as a common tool for dialogue and future development – not as a school report or black marks list !
- All parties – workers, middle and senior management – should participate in and be committed to the entire process.

The National Institute in Copenhagen receives reactions, comments and questions about the concept almost daily, and many users have developed the system further for specific workplaces. We gain the clear impression that this system has been an unprecedented success. Researchers at the Danish NIOH and other institutions in Denmark have used the COPSOQ dimensions for many studies, which facilitates comparisons between different investigations.

We hope to be able to update the database for national comparison values in 2002 on the basis of a new national survey in order to maintain system validity and reliability. As part of that, we shall be looking into the possibility of developing benchmark values for specific industries and branches.

All the COPSOQ questions have been translated into English, and some into Japanese. Spanish, German and Flemish versions are under development.

Conclusions

The three-tier concept of the COPSOQ has been successful in improving communication between researchers, work environment professionals, and workplaces. The questionnaire seems to provide valid assessments of a broad range of psychosocial work environment factors. In Denmark, the NIOH has plans to develop similar instruments for other fields of research. ■

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www.ami.dk/apss : shows the Danish version and average values for more than 30 jobs. The English version of the questionnaire is available on the TUTB website : www.etuc.org/tutb/uk/newsletter-stress.html

Nordic method for measuring psychosocial and social factors at work

Kari Lindström*

Work-related stress is a common occupational safety and health problem at many workplaces. Psychosocial factors at work are its most common causal contributors. The General Nordic Questionnaire (QPSNordic) is both a research tool and a practical tool for monitoring the psychological and social factors at work when planning or evaluating an organizational action or change process.

Why a Nordic method ?

The Nordic Countries have a long tradition of monitoring and improving psychological and social work environments. They have long had similar legislative provisions and practical scope for carrying out surveys and actions on work and work organization. Research into psychological and social factors at work has played an important role in both workplace reforms and occupational health and safety since the 1960s/70s. Nordic research into the work environment has also been typified by its problem-oriented approach and emphasis on employee participation. So far, however, practical experience and scientific data on the prevention of work-related stress have been limited because of the workplace- or occupational group-specificity of the measurement methods used.

The aim in developing the QPSNordic

From 1995-2001, a joint Nordic effort was undertaken to develop and validate a questionnaire-based tool for measuring key psychological and social factors of work. The psychological and social factors of work, work organization, and work environment are potential contributors to the motivation, health and well-being of individual employees, groups, and entire work organizations. One major aim for the questionnaire was for it to be usable both in practically-oriented workplace surveys and actions, and also in research on work-related stress.

How the method was constructed

The QPSNordic was constructed by an expert group from four Nordic Countries, based on the evaluation of 19 methods used earlier in four Nordic Countries. A pilot questionnaire was constructed, based on a data set of 2600 questions from these earlier questionnaires, as well as on an analysis of recent trends and future expectations in work life. After testing the comprehensibility of the questions, the pilot version was validated with two samples of employees from the four Nordic Countries in two study phases. The first phase was to test the factorial structure of the questions and construct questionnaire scales. The second phase aimed to test the QPSNordic's construct and predictive validity in relation various measures of well-being.

Contents of the questionnaire

The full questionnaire comprises 123 questions; its condensed version, QPSNordic 34+, for workplace use, contains 34 questions. All questions use five-point response scales.

To construct the questionnaire scales, the questions were first classified into three levels, i.e., task level, social and organizational level, and individual level. Then, three separate exploratory factor analyses were carried out on the question sets on these levels in order to construct what is known as sum scales. Twenty-six sum scales were created. These sum scales clearly differentiated between different types of jobs and proved the sensitivity of the scales.

Validity of the method

The criterion validity of the QPSNordic was adequate when compared to earlier research results on the associations of psychological and social factors at work to workers' well-being. The central scales of the QPSNordic accurately predicted employees' emotional exhaustion, distress symptoms, and job involvement. For example, emotional exhaustion was explained by the same job and organizational factors as had emerged from previous studies.

Applicability of the method

The applicability of the QPSNordic to organizational development as a survey feedback tool was tested in practice. The objective of this case study was also

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Classification of the QPSNordic questionnaire scales

Task level	Social and organizational level	Individual level
Job demands	Social interaction	Commitment to organization
Control at work	Leadership	Competence
Role expectation	Communication	Preference for challenge
Predictability at work	Organizational culture and climate	Predictability, individual
	Group work	Work motives
		Work centrality
		Interaction between work and private life

to evaluate the survey feedback procedure when the QPSNordic was used with respect to the following goals : (1) enhancement of workers' knowledge of psychological and social factors at work on the department level and (2) specification of relevant action plans.

When the questionnaire is used as a survey method and feedback of results is given to specific work units, the necessary openness and trust must be established by observing ethical and social principles. The preconditions of openness and trust are confidentiality, keeping the participants fully-informed, and giving them feedback on results. For organizational development purposes, these principles are a starting point, and the development itself starts with feedback meetings.

Whether the developmental goals of such survey feedback processes are achieved depends on the extent of workers' involvement in feedback meetings. These are most productive when participants have the time and opportunity to discuss the results and priorities in small groups and present their evaluations and priorities in plenaries.
A successful feedback meeting depends on :
- having a structured agenda for the meeting;
- splitting up into small groups during the feedback meeting, focusing on questions/problems in the work unit;
- having an independent consultant present to select and give feedback on relevant results, monitor the feedback meeting, and give guidance when necessary.

An outside consultant organizational psychologist is best suited to give the feedback and facilitate the discussion on interpreting the questionnaire results. However valid the questionnaire method, the readiness and resources of employee groups, like occupational health service personnel, to implement developmental projects in the workplace vary greatly. The tasks of the consultant psychologist, other occupational health personnel, and supervisors in a survey feedback process need to be spelled out for each project. The role of supervisors and management is crucial in implementing development plans that come out of the feedback meetings.

The method questionnaire and user guide are now available in English, Swedish, Danish, Norwegian and Finnish. An Icelandic version is in the pipeline. The method has been used in various Nordic research projects and some occupational health services. ■

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An English version of the questionnaire is included *in* Lindström, *User's Guide for QPSNordic*, 2000.
A Swedish version of the questionnaire is available at : www.niwl.se/arb/2000-19.html

Stress and Work-Related Musculoskeletal Disorders of the upper extremities

Michel Aptel and Jean Claude Cnockaert*

Work-related musculoskeletal disorders of the upper extremities (WRMSDue) are one of the main causes of work-related illnesses in Europe. This catch-all term refers to both a wide array of disorders and the fact that work-related stresses are causal in their development. So, biomechanical (repetitive motions, effort, extreme joint postures) and psychosocial risk factors have been demonstrated. The role of stress and work-related psychosocial factors in the development of WRMSDue is still poorly understood and there is still no consensus on the epidemiological data. However, it seems likely that the body responds to stress factors through four systems – central nervous, autonomic nervous, endocrine and immune – which are constantly interacting as a complex network. Whether or not, the fact that we do not understand the specific mechanics of the associations between stress and WRMSDue is no reason not to put in place preventive measures which include organizational and psychosocial factors because there is sufficiently compelling scientific evidence to bear out the effectiveness of a holistic approach to work situations.

An EU survey of working conditions carried out in 2000 [1] revealed that the most common health problems included :

- back pain, reported by 33% of workers;
- stress, reported by 28% of workers;
- muscle pain (neck and shoulders), reported by 23% of workers.

According to the survey's authors, this rising tide of health problems is to do with poor working conditions, in particular working in painful positions, the carrying of heavy loads, and intensification of work. The survey findings clearly show, therefore, that whole-body MSD and stress are the most frequently encountered complaints among the workers interviewed.

Work-related musculoskeletal disorders of the upper extremities (WRMSDue) affect the soft tissues of the locomotor system. Many authors [2,3] regard the acronym WRMSDue not as a diagnosis but as a "catch-all term" which covers a wide array of disorders (carpal tunnel syndrome, epicondylitis, rotator cuff syndrome, myalgia, etc.) resulting from physical activities which put the locomotor system under strain. Whole-locomotor system MSD are regarded as the main cause of care demand, disability and sickness absence [4]. In the United States and Canada, WRMSDue is the cause of the fastest-rising disability rate since the mid-90s [5]. The current consensus is that work is an undeniable risk factor for WRMSDue [5,6].

Stress has been the focus of much scientific study. A summary report written for the European Agency for Safety and Health at Work [7] defines stress as *"a psychological state which is part of and reflects a wider process of interaction between the person and their work environment... stress may be experienced as a result of exposure to a wide range of work demands and, in turn, contribute to an equally wide range of health outcomes"*.

The issue of a possible link between WRMSDue and stress was brought to the fore some years ago by epidemiological research [8,9] demonstrating a causal association between the 2 disorders. The question of a link between stress and WRMSDue is therefore both one of causation – what is instrumental in what – and biological likelihood – how does it happen?

This article briefly reviews what WRMSDue and stress are, then rehearses the arguments for a credible link between stress and WRMSDue.

A general explanatory model for WRMSDue

In 1999, the European Agency for Safety and Health at Work published a report on WRMSDue [6]. The report's authors state that *"there is a substantial evidence within the EU member states that neck and upper limb musculoskeletal disorders are a significant problem with respect of ill health and associated costs within the workplace. It is likely that the size of*

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the problem will increase as exposure to work-related risk factors for these conditions is increasing within the European Union". They argue that "*the scientific reports, using defined criteria for causality, established a strong positive relationship between the occurrence of some neck and upper limb musculoskeletal disorders and the performance of work, especially where high levels of exposure to work risk factors were present*". The NIOSH [5] (US National Institute for Occupational Safety and Health) published a report in 1997 giving a detailed review of the epidemiologic evidence for the work-relatedness of MSDue. The authors state that "*A substantial body of credible epidemiologic research provides strong evidence of an association between MSDs and certain work-related physical factors...*". Table 1 shows the risk-relatedness of biomechanical factors to WRMSDue [5], but refers only to evidence of relatedness between biomechanical or physical risk factors and whole-body MSD. Finally, a series of models are suggested to explain the complex relationships between work risk factors and WRMSDue [6].

The INRS [10] has developed an explanatory model (cf. Figure 1, p.52) which demonstrates how the links between categories of risk factor and WRMSDue are organized, and shows that work-related WRMSDue must be regarded as multifactorial disorders. The risk of contracting them results from the indivisibly systemic nature of risk factors which clinical examinations cannot reveal.

Stress

There is an extensive body of research on work-related stress[1], and the corpus of knowledge is reasonably certain. Stress is a set of physiological, behavioural and emotional responses that occur in reaction to situations which are potentially harmful to the individual's physical or psychological health. A model developed by Cooper as amended by Fox [7] (cf. Figure 2, p.52) gives a summary depiction of the relation between the stressors which are also called psychosocial factors (Table 2), the symptoms of stress and the illnesses which may result from a state of stress. Chronic stress is what is most often encountered in the work environment. So, when physical, organizational, psychosocial, etc. changes occur in the human organism's work environment, the body mobilizes its metabolic and "psychological" resources to respond to the changed environment. Two situations may then arise depending on whether the *challenge* can be satisfactorily met or not (Figure 3, p.52).

Table 1 : Relevancy of biomechanical-WRMSDue risk factor relationships [5]

Anatomical region Risk factor	Cogent evidence (+++)	Epidemiological evidence (++)	Insufficient evidence (+/0)
Neck and cervicobrachial			
Repetitive motions		✘	
Strain		✘	
Range of motion	✘		
Vibration			✘
Shoulder			
Repetitive motions		✘	
Strain			✘
Range of motion		✘	
Vibration			✘
Elbow			
Repetitive motions			✘
Strain		✘	
Range of motion			✘
Combination*	✘		
Hand/Wrist			
Carpal Tunnel Syndrome			
Repetitive motions		✘	
Strain		✘	
Range of motion			✘
Vibration		✘	
Combination	✘		
Tendinitis			
Repetitive motions		✘	
Strain		✘	
Range of motion		✘	
Combination	✘		

* *Combination* = At least 2 risk factors present

Table 2 : Psychosocial factors of work-related stress

In the modern approach to stress, stressors include the controllability, predictability, loss of control, hazards, etc., of the work social environment. This makes it possible to draw up a list (non-comprehensive, and not in order of importance) of the main psychosocial factors of chronic work-related stress.

- Loss of job
- Change at work (transfer, retraining, change in job content/requirements, retirement...)
- Change in work responsibilities
- Husband/wife starting new job/leaving job
- Relationships within the organization (superiors/colleagues) (role conflict/ambiguity)
- Changes in working hours (rotating shift work, shift work)
- Length and method of daily commute
- Working conditions (social work, care for patients and people with disabilities...)
- Empowerment/control over how the work is performed
- Working to tight deadlines
- Job content (poor --> underload, over-demanding --> mental overload)
- Organization (rigid structures, no communication between organizational levels)

In the first, the person is energized and motivated; the challenge then becomes a key ingredient of quality, productive work bringing satisfaction to the worker. This is often mislabeled "good stress", which perpetuates the confusion over what stress is. In the second, the person feels (cognitive appraisal) that their physiological, psychological and emotional

[1] The Bilbao-based European Agency's report gives a detailed, cogently-argued review of the current state of knowledge [7].

Figure 1 : WRMSDue risk factors : a dynamic model

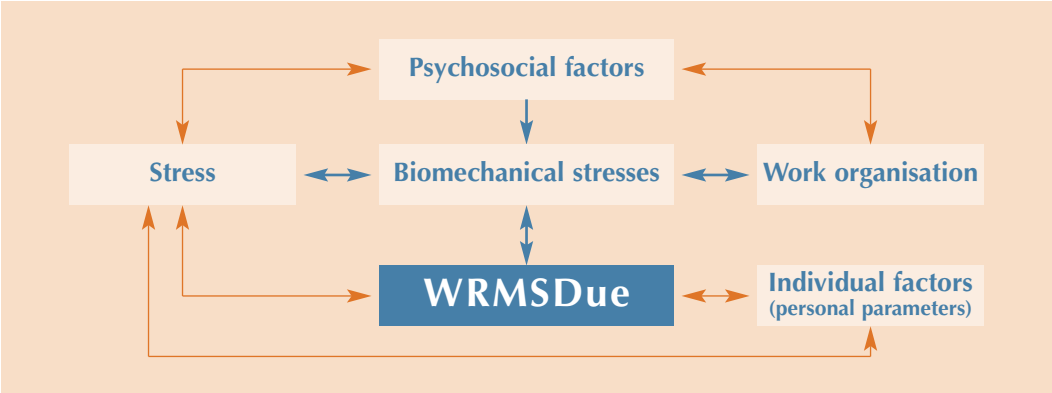


Figure 2 : Cooper's model of the dynamic of work stress*

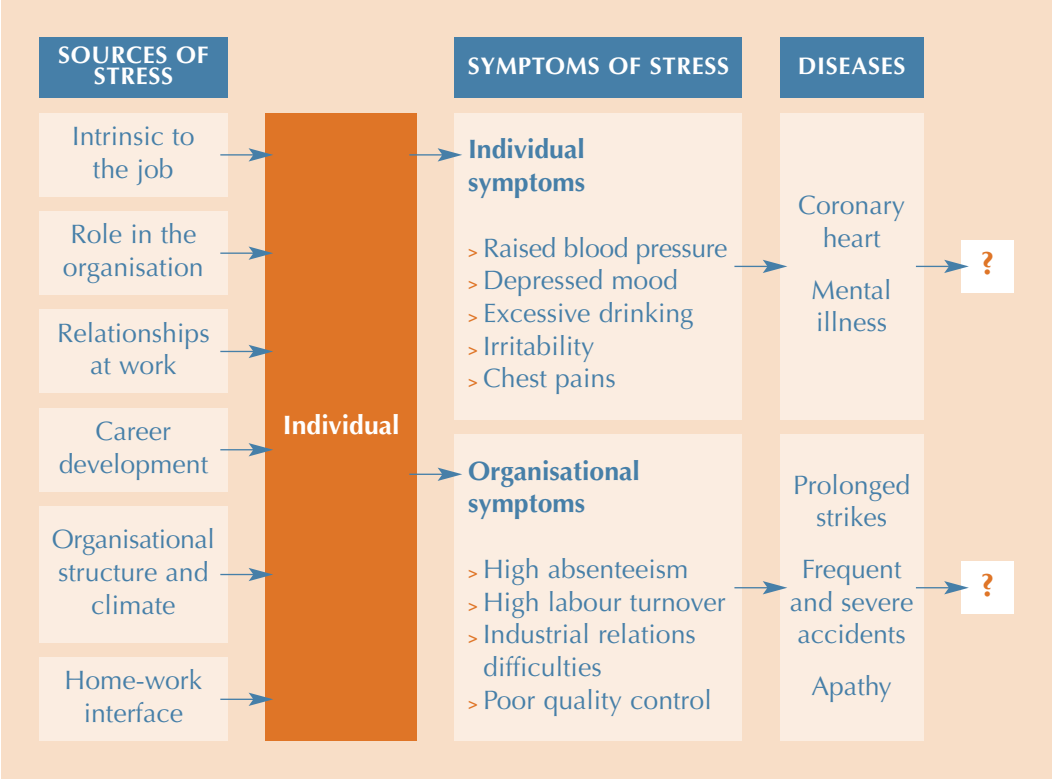
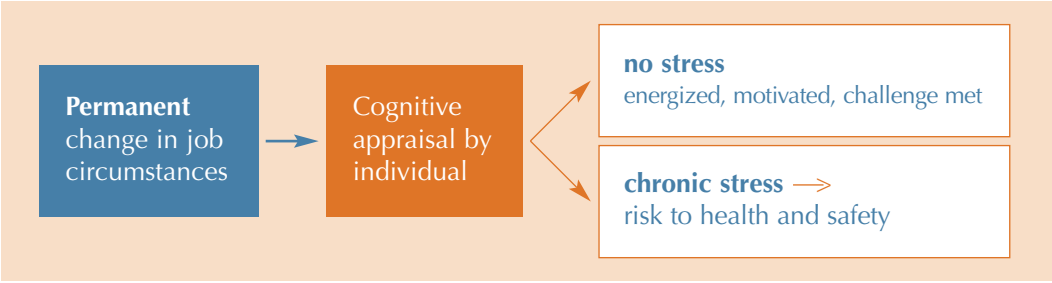


Figure 3 : Impact of the sources of stress on the state of stress



The concept of "acute" stress is not included in this figure as it relates to a temporary change in job circumstances.

*Adapted from Cooper & Marshall (1976), from Fox, *in Research on work-related stress* (2000) [7]

resources are unable to cope with the challenge; they are stressed. The body's natural equilibrium is upset, its ability to respond is diminished, and its immune defences are less effective. The conditions are then ripe for physical or psychosomatic disorders (raised blood pressure, gastrointestinal disorders, disturbed sleep patterns, infections, etc.) or accidents and neuropsychological disorders (depression, neurosis, loss of appetite...) to occur.

The origin of work-related stress is multifactorial, which puts it in the same realm of probabilistic causation as WRMSDue. The consensus view divides identified working environment stressors into physical factors (noise, cold, heat, vibrations...), psychosocial factors (Table 2) and organizational factors.

The general context to the concept of stress comprises :
- the circumstances that the individual considers as threatening;
- the stressed person (evidence and symptoms of stress);
- the interaction between one or more stressors and the individual's resilience to them.

Relations between stress and WRMSDue

The role of work-related stress and psychosocial factors in the occurrence of WRMSDue is still poorly understood and there is still no consensus on the epidemiological data [7,8,9,11]. So, NIOSH argues that [5], "*the epidemiologic studies of upper extremity disorders suggest that certain psychosocial factors have a positive association with these disorders*", but qualifies this with the assertion that "*these factors, while statistically significant in some studies, generally have only modest strength*".

There may be several explanations for this conclusion :
- the association between psychosocial factors, stress and WRMSDue is difficult to establish, because there is a limitless number of risk factors;
- the diversity of findings may be explained by the lack of a consensus on the methods and tools of scientific investigation. Also, the objective evidencing of processes and their associations is made still more difficult by the lack of objective measures of psychosocial factors.

A great deal more research is therefore needed into establishing causal inferences in the chain of events linking psychosocial factors, stress symptoms and illnesses as depicted in the model developed by Cooper *et al.* (cf. Figure 2) or that developed by the US National Academy of Sciences [see 6, page 32]. However, recent discoveries about the mechanisms used by a stressed individual's body allow credible propositions to be advanced about the links between stress and WRMSDue (Figure 4, p.55).

These propositions are not given in order of importance, as the precise relative contribution of each in the etiopathology of WRMSDue and stress cannot yet be told. Figure 4 simply illustrates the complexity of the mechanisms in play, shows the number of physiological functions involved, and reminds us that the body is a psycho-sensori-motor whole. The response to stress involves four systems: the central nervous system, the autonomic nervous system, the endocrine system and the immune system. These systems continually interact as a network, allowing the organism to maintain its wholeness and homeostasis. The response mechanisms that psycho-neuro-immunology [12] seeks to evidence are a chain of nervous, hormonal and mood reactions generally controlled by feedback loops. These feedback loops will not be described in this article so as not to further complicate the physiopathological picture; but their existence ought still to be borne in mind.

Activation of the central nervous system

Stress produces activation of the central nervous system, which increases activity ("tone") in the reticular formation. This in turn, increases muscle tone which itself increases muscle and tendon "biomechanical load", thereby contributing to an increased risk of WRMSDue.

Activation of the catecholaminergic pathway

Stress produces activation of the autonomic nervous system, which triggers the secretion of catecholamines (adrenalin and noradrenalin). These are released in the blood and elicit, among other things, increased reticular formation tone (see above), a raised heart rate, and arteriolar vasoconstriction. This leads to raised blood pressure and, in the long term, the risk of coronary heart disease. Where WRMSDue are concerned, restriction of muscle and tendon microcirculation (the latter generally displaying poor vascularisation) both reduces nutrient delivery to the tendons, thus hampering self-healing of the microlesions caused to the tendinous fibres by the excessive biomechanical strain ("ergonomic" factors), and encourages the development of chronic muscle fatigue and muscle pain.

Activation of the adrenal cortex

Stress produces activation of the central nervous system which, via the hypothalamus activates the pituitary gland, which among other things, triggers the release of corticosteroids from the adrenal cortex. These corticosteroids (corticosterone, cortisol) act

on the kidneys and may disrupt the body's fluid and mineral balance, the most visible sign of which is oedema. As regards WRMSDue, oedema may cause "tunnel syndromes" as oedematized adjacent tissues (tendons, etc.) cause local compression of the nerves.

Activation of cytokine secretion

Stress produces activation of the central nervous system, which in turn activates the production and release of cytokines (molecules secreted by immune system cells). Some of these cytokines, like interleukins (IL-1, IL-2, IL-10, etc.) are pro-inflammatory, and may possibly be instrumental in or cause WRMSDue (inflammation of tendons). This has been indirectly borne out by the findings of a study on the side effects of a triple therapy cancer treatment [13] associating two specific drugs with IL-2. The patients treated developed carpal tunnel syndrome just three weeks into the treatment. Crossover studies in complete bed rest patients, whose wrists were therefore not subject to any particular biomechanical strains, confirmed that IL-2 was indeed the sole cause of carpal tunnel syndrome.

Summary

There is, then, a sufficient body of persuasive scientific evidence to prove a credible biological relationship between stress and WRMSDue. That relationship forms part of a self-consistent biological model based on the wholeness and complexity of the living organism. That scientific evidence is wholly consistent with a psychosocial approach in which human beings are continuously interacting with their environment, especially their work environment. Far from calling into question the social dimension of working life, it adds to its relevance and more than ever argues in favour of a systemic approach to preventive measures in the work environment.

Figure 5, developed by Claudon and Cnockaert [14] summarizes (and amplifies certain points of) the foregoing propositions. Beyond the purposely over-simplified not to say simplistic approach to the stress-WRMSDue relationship that it portrays, it does hint at the complexity of the mechanisms involved. It also gives some insight into, if it does not explain, inter-individual (faced with the same circumstances, some people are stressed, others not) and intra-individual (faced with the same circumstances, the same person may be stressed or not according to when the circumstances arise) variability.

From this, it can be deduced that :

- stress is a WRMSDue risk factor : it damages employees by impairing their working efficiency. This is a conclusion shared by Smith and Carayon [15], who argue that stress and biomechanical strains (effort, repetitive motions and extreme joint postures) are "intermediate variables" between organizational, ergonomic and psychosocial risk factors (cf. Figure 1);
- stress is also potentially a form of illness in itself;
- by acting on the organizational and psychosocial factors, it is possible to prevent both stress and WRMSDue at once. Figure 1 shows that stress and WRMSDue result from new patterns of work organization (cf. European Foundation for the Improvement of Living and Working Conditions' report). It is therefore a shared problem with which all actors in prevention must feel concerned.

How this knowledge impacts the prevention of WRMSDue and stress

A study reported by the Dublin-based European Foundation for the Improvement of Living and Working Conditions was carried out in a major Swedish industrial group (over 30 000 workers) manufacturing electrical equipments. It showed that action on psychosocial factors brought not just financial, turn-over, absenteeism, productivity and other benefits, but also very significantly reduced the incidence of WRMSDue (255 cases a year in 1988 to 10 in 1994). This bears out the proposition that prevention of WRMSDue also involves counting in and getting a grip on the psychosocial factors and stress which are instrumental in the development of WRMSDue.

The right prevention response is to take a holistic approach to jobs, in the workshop, in piecing together the WRMSDue risk factors through a rounded and transparent participatory ergonomic intervention as part of a project approach run by the business manager, enlisting expertise (ergonomists, methods and procedures officers, occupational health nurse, occupational health doctor, etc.) and worker representatives [16]. It is fundamentally in line with the available scientific evidence, and the only way to reduce WRMSDue risks. The economic, financial, health and social consequences that WRMSD create for firms mean that there is no alternative to preventive measures. That is also the belief of the authors of the European report on WRMSDue [6], who say "*the report concludes that existing scientific knowledge could be used in the development of preventative strategies for WRMSDue. These will be acceptable to many of those interested in prevention and are practical for implementation*". ■

Figure 4 : Relations between stress and WRMSDue (Propositions)

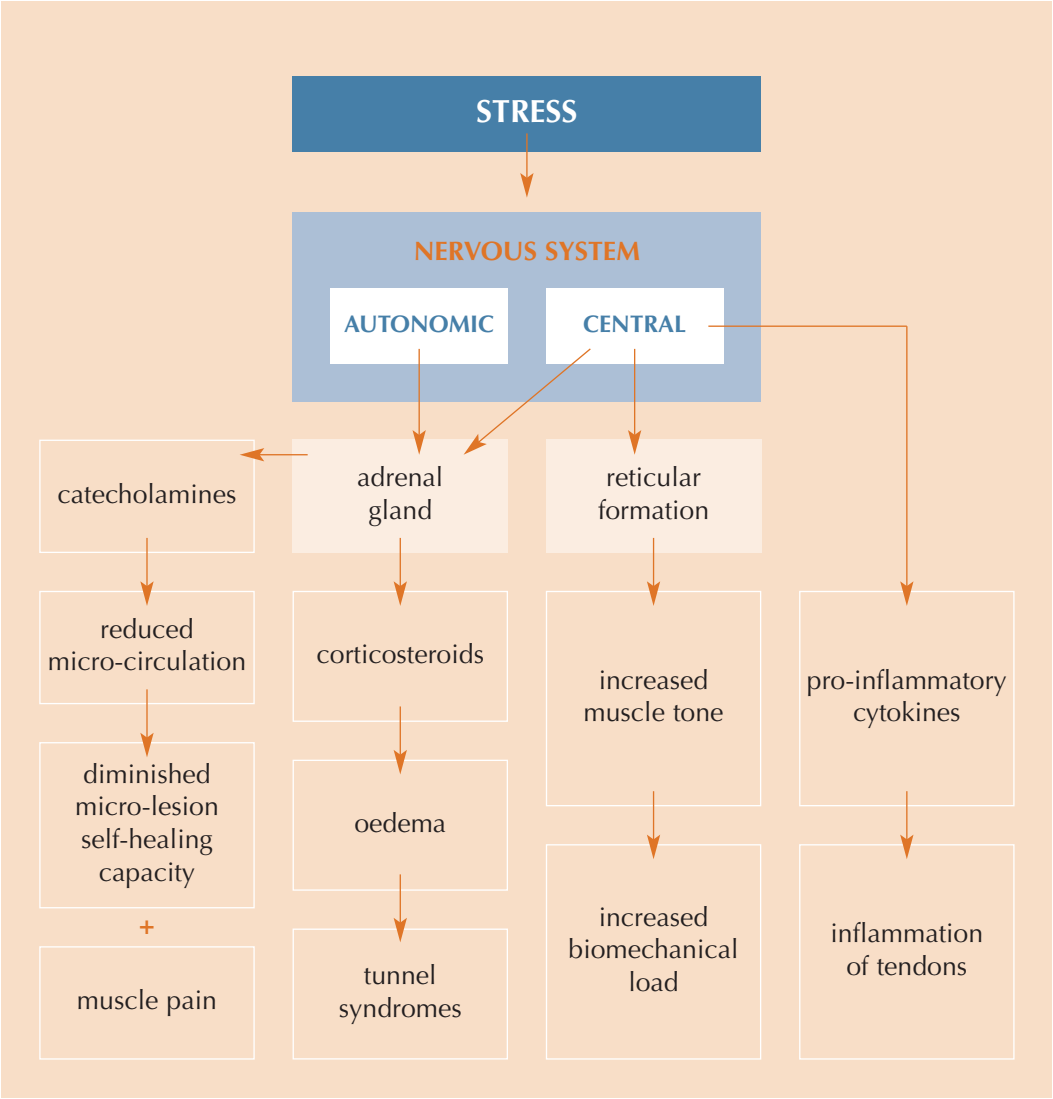
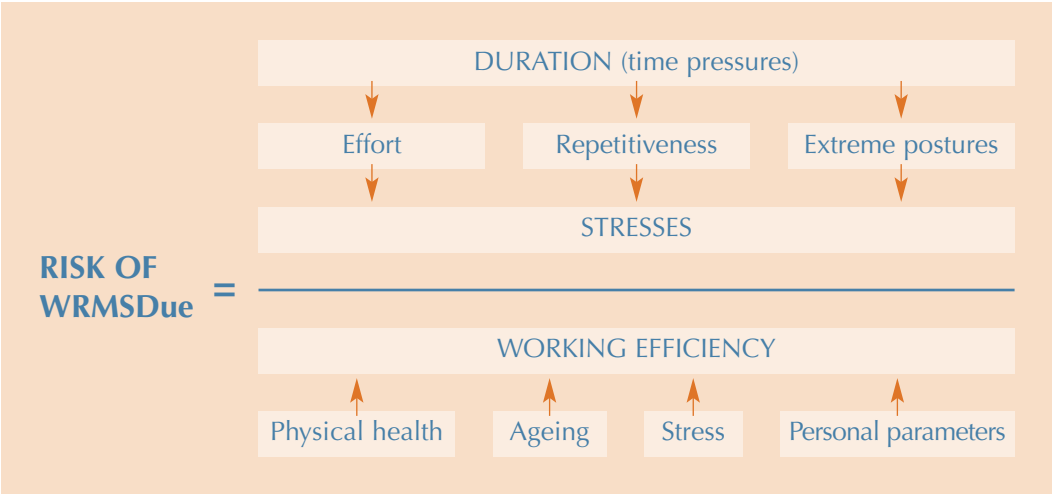


Figure 5 : WRMSDue risk factors : a dynamic model



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MSD, stress : expanding discretion

Philippe Douillet and Jean-Michel Schweitzer*

Simultaneous developments

In France, as in most European countries, stress is very much on the agenda of social partner debates and prevention practitioner interchanges. Survey after survey confirms that symptoms normally associated with stress are on the rise among workers, even though no specific work-related illness has yet been legally recognized. At the same time, musculoskeletal disorders have exploded : in France, they now account for 70% of recognized work-related illnesses, and have risen tenfold over the past ten years. Behind the bald figures, the ANACT network's workplace interventions have uncovered evidence of physical problems due to peri-articular disorders and physical or psychological disorders usually associated with stress.

The common culprit : work intensification

What both the spread of stress and the onset of MSD have in common is work intensification. In 1995, an epidemiological survey commissioned by the ANACT demonstrated the link between MSD and forms of "just-in-time" working raising employee "organizational dependence" levels. The recent surveys by the Dublin Foundation[1] and DARES[2] in France also confirm a sharp rise in time pressures and "imperative" deadlines for operators. In the French context of an across-the-board reduction of working time, "densification of work" has taken hold, especially when reduced working time has led to cutting down on breaks, doing away with the "down time" which aids recovery, and time to work out problems as a group. Studies are on-going to assess the health impacts of these radical changes in the organization of working time.

Similar explanatory models mean rethinking prevention

Scientific research has already demonstrated the physiological links between endocrine system activity triggered by stress and the onset of peri-articular disorders[3], so this article will focus more on the mechanisms and similar work contexts which lead to the development of a stress disorder or MSD. The evidence suggests that we need to radically rethink how we see workplace health and expand the scope of prevention. Analysis of both MSD and stress disorders show the central importance of work organization. Even more than risk factors, work organization "determines" the characteristics of work situations and may potentiate pathogenic effects. So prevention needs to look towards wider spheres than the standard areas of health protection.

The explanatory models for both MSD and stress-related disorders are necessarily complex and demonstrate the multifactorial nature of the risk factors. This sets them apart from other diseases for which we now possess simple, more monocausal schemas of identification and prevention. So, unlike the so-called "traditional" risks, there is no systematic link between the risk factors and the onset of MSD or stress-related disorders. For example, a short-cycle, repetitive activity does not constitute a pathogenic situation per se. Likewise, a customer-facing relationship with a highly-demanding customer base will not produce stress-related disorders in every case. In both these examples, the individual's health can be preserved provided they can draw sufficient resources from their work organization and their own potentials to withstand the stresses : relations with work colleagues, opportunities for mutual self-help and cooperation, time to deal with unforeseen circumstances, predictive planning, etc.

The fact is that each pathogenic situation is the result of a singular combination of multiple personal and collective, material and psychosocial factors bound up with the practical way work is organized. The relationship between these factors and illnesses is a probabilistic one. So, the complexity of the explanatory models means adapting the preventive measures. What prevention practitioners have to do is to help the firm understand in each specific situation what are the stresses experienced by its employees. To act on a single causal factor based on a one-size-fits-all perception of work situations is invariably to court failure (cf., multi-skilling, job re-design, for example).

The prominence of so-called "psychosocial" factors in work content which are also causal for MSD are also found in the mechanisms of stress-related disorders. Recent European studies on each of these processes point to the proximity, if not the similarity, of the causal factors[4]. This requires a reality check on workers' experiences at an earlier stage of preventive measures, a focus on their perception of the stressors in their work. This analysis involves providing significant help to workers' self-expression, and proactive listening to what they say. It also means

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[1] P. Paoli and D. Merllié, *Ten years of working conditions in the European Union*, Dublin, European Foundation for the Improvement of Living and Working Conditions, 2000.

[2] "L'organisation du travail : résultat des enquêtes conditions de travail" (work organization : findings of the working conditions surveys), in *Dossier de la DARES*, 4/2000, Ministère de l'Emploi et de la Solidarité, Documentation Française.

[3] Cf. in particular the work of the INRS and the contribution of psychoneuroimmunology.

[4] Cf. Prof. P. Buckle and Prof. J. Davereux's report on MSD for the Bilbao Agency in 2000, and Prof. Cox's report on stress.

encouraging workers to take part in analysing their work, understanding how stresses work, and, finally, searching out and implementing solutions.

Concerted preventive measures can then be implemented on the basis of established conclusions. While they can be expected to have effects on the employee's work situation, preventive measures must be wider in scope, and not restricted to remedial measures applied to the job or the individual (in particular, stress management, or learning correct work motions). As well as job- and work environment-specific measures, solutions must be focused much more on the work process and product design sides, but also on skills development for employees and management, establishing properly controlled multi-skilling, the organization of working time, the organization of workforces to permit mutual self-help, improving work relations between individuals and departments. In other words, prevention means the firm and its advisers acting on several levels – from individual jobs to industrial strategies – which demands joined-up action across all company departments.

Finally, there is nothing set in stone about prevention of the disorders discussed. Ongoing changes in the company, its strategies and organization upset the delicate equilibriums developed by workers to withstand stresses. The clear issue for management is to develop monitoring and forward planning capabilities, such as by early complaint collection, but also by safeguarding workers from the "vicious circles"[5] identified in the diagnosis phases.

[5] Cf. F. Bourgeois *et al.*, *TMS et travail, quand la santé interroge l'organisation*, ANACT, 2000. See also : www.anact.fr/sante/tms

[6] In particular work psychodynamics.

[7] Karaseck, Siegrist, etc.

Dossier stress et travail, Bulletin No. 208, Liège : Fondation André Renard, 1995

Limiting discretion : the common denominator of work situations

When it comes to MSD, the ANACT network, bringing work in various fields to bear[6], has shown that there are three dimensions to work motions : a biomechanical dimension (movements and their visible characteristics : force, angulation, etc.), a cognitive dimension (the movement is the result of a learning strategy, ...), and a psychological dimension (the meaningfulness of the movement). So, the individual's movement uses creativity to effect production by managing multiple imponderables. If the conditions of production (impossible to predict incidents, regulate one's activity, ...) result in a movement in which the simultaneous requirements of speed and quality can no longer be combined, the movement will be more physically stressed (more forceful, quicker, ...), and the work will become a source of dissatisfaction. The backlash of the distress associated with this now-meaningless work may be reflected in muscle strain and somatization disorders.

Likewise, most explanatory models for stress[7] demonstrate mechanisms akin to those described for MSD onset : a mismatch between the systematic stresses experienced by the employee and the assessment of how they can be avoided, conflict between the employees' expectations and the actual or perceived reduced potentials offered by the organization, or again, limited individual work autonomy in conflict with the perceived level of demands.

To this extent, both MSD and stress-related disorders arise out of work situations which limit the worker's discretion. They increase the work stressors, sap creativity, and so stop the individual seeing a point to the work, which is a precondition for their mental balance. Expanding workers' discretion, therefore, becomes a key prevention priority : not just to reduce the physical and psychological stressors, but also as a way of recognizing the individual's creativity at work.

Prevention : an issue for social dialogue

The issue of the "discretion" which workers are allowed in their work activity raises questions about all aspects of workplace health. It means prevention practitioners getting involved in work organization to develop the right conditions for individuals to bring their physical and experiential resources to bear. Clearly, it is an issue that goes beyond the narrow framework of prevention to engage all those involved in work organization and industrial bargaining. ■

TUTB PUBLICATION

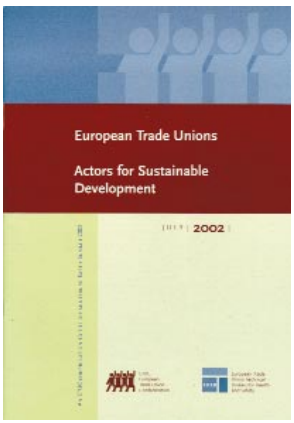
European Trade Unions – Actors for Sustainable Development

An ETUC contribution to the Johannesburg Earth Summit 2002

European trade unions are going to the Johannesburg Summit with a message : that the current income and natural resource use gap between North and South is not sustainable. More – it holds cause for alarm. Trade unions want world governments to adopt a global plan for sustainable development which will defeat poverty, protect the environment, and ensure respect for human and social rights.

The European Trade Union movement wants the plan to enable urgent action on the social dimension of sustainable development by giving recognition to fundamental social rights, jobs and training as fundamental shaping factors in the war on poverty, as well as the importance of access to collective goods like water, energy, education, health, and communication infrastructures through public services. The ETUC wants the European Union to take the lead in delivering these principles and objectives.

Our brochure, published jointly with the ETUC, aims to elaborate the role of the European trade unions with respect to sustainable development. It opens with a description of the current position of European trade unions in European economic and political life. The paper shows that they play a central role in effecting the European social model, through negotiations on industrial and regulatory issues with employers and the State.
For European trade unions, the sustainability challenge lies primarily in integrating environmental issues into their policy stances and actions. Since it is clear that in the future environmental issues will be more and more connected to core workers' and trade unions' interests, the importance of a balanced and coordinated approach, based on Global and European action plans is clear and compelling. In general terms, European trade unions recognise that the coordination of social, economic and environmental policies is essential to achieve truly sustainable development. Within this key challenge, three issues are identified as needing urgent attention; namely, (i) food and agriculture, (ii) climate change and energy, and (iii) chemical risks.



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