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Managing Job Stress in the Netherlands

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Compared with other countries, in the Netherlands work pressure and sickness absenteeism and work incapacitation rates due to work-related mental health problems are quite high. 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 it 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 prescribed by the WCA. Preventive measures are increasingly taken by organizations in order to reduce job stress and sickness absenteeism. Based on the Dutch approach some lessons may be learned. 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.

KEY WORDS: job stress, legislation, working conditions, occupational health, the Netherlands

INTRODUCTION

The aim of this article 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. In particular, the objective

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is to answer six related questions (1) What are facts and figures with respect to job stress in the Netherlands? (2) Which legal framework and national infrastructure exist for psychosocial risk assessment and stress prevention? (3) What are the points of view of employers' organizations and trade unions concerning job stress? (4) Which instruments are used for the assessment and evaluation of job stress and psychosocial risks? (5) What kind of preventive measures do companies undertake to reduce job stress? and (6) Are there lessons to be learned from the Dutch experiences?

In order to answer these questions information was gathered from international labor 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: WHAT ABOUT FACTS AND FIGURES?

Work Pace

A recent survey, sponsored by the European Commission, of nearly 16,000 workers in all 15 European Union (EU) member states revealed that compared with all other member countries, Dutch workers experience the highest levels of work pressure (Paoli, 1997) That is, 58% of the Dutch workers indicate that their work pace is high more than 50% of their working time, the European average of high work pace is 42% A comparison with a similar survey (Paoli, 1992) conducted 4 years earlier, showed that work pressure in Europe had increased by 7% from 1991 to 1995. In the Netherlands this increase was even sharper, 11%. These figures closely correspond with the results of the National Work and Living Conditions Survey conducted of a representative sample of the Dutch working population every 3 years from 1977 to 1989 (Houtman & Kompier, 1995). The percentage of workers who report they work in a very high work pace steadily increased from 38% in 1977 to 51% in 1989—an increase of 13% in 12 years.

Work Disability

Roughly speaking, work disability rates in the Netherlands are twice as high as in other European countries such as Norway, Belgium, Germany, Denmark, Sweden, and Great Britain (Stichting van de Arbeid, 1999). However, one should be extremely cautious with such comparisons 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 of absenteeism, regardless of its cause In most collective agreements between employers and employees. 100% payment is assured. After 1 year of illness, a national compensation system becomes operational, which guarantees compensation until recovery. The compensation is paid by a premium-based social security fund Within certain budgetary limits, compensation is a maximum of 70% of the latest earned wage, there are no occupational restrictions.

Typical for the Netherlands is that almost one third of disability benefit recipients is assessed work disabled on mental health grounds. In 1998, mental health disorders were the largest diagnostic group for work incapacitation (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 Disability Security Act was introduced, mental health disorders accounted for 11% of the new disability benefit recipients Ten years later this amounted to 20%, and since the early 1990s, the yearly rate has been stable at approximately 30%. A comparison with other European countries shows that the percentage of work-incapacitated persons in the Netherlands who receive benefits on mental health grounds is much higher than in other countries—from twice as high compared with Norway to five times as high when compared with 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 labeled as "situation dependent or exogenous reaction" and include predominantly chronic job stress and burnout

In a Dutch study of more than 7,000 recently disabled employees, 53% of the respondents reported a direct, clear relationship between aspects of their work and the health problems that caused their disability (Gründemann & Nijboer, 1998). Work aspects mentioned most frequently as major causes of the disability were physical workload (43%), mental workload (26%), and general working conditions (29%). Of those who were assessed work-disabled on mental health grounds, 56% reported a direct relationship between their work and their disability. Another Dutch study that compared work characteristics of over 3,000 work disabled employees who were absent 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, unfavorable social climate, and low payment (LISV, 1998).

Sickness Absence

A careful comparison revealed that sickness absenteeism in the Netherlands is 50% higher than in Germany and 100% higher than in Belgium (Prins, 1990) Another indication of relatively high job stress levels in the Netherlands is that 12% of the workers' absenteeism days is due to mental or psychological disorders, which, together with musculoskeletal disorders (13%), constitute the most frequent diagnoses (Houtman, 1997). For long-term absenteeism of 6 weeks and longer, this rate of mental disorders is more than twice as high (27%). Again, the vast majority (85%) do not suffer from severe psychiatric disorder but from an "exogenous reaction" (Van Engers, 1995).

Costs

In 1998, the sickness absence rate was 5.6%; currently the country counts approximately 880,000 work disability benefit recipients. This accounts for 12.8% of the total workforce (CBS, 1999). From an economic perspective, sickness absence and work disability constitute huge benefit costs amounting to $25 billion in 1995, corresponding 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 disability and absenteeism due to mental health 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 with other European countries. When work productivity per hour in industry is indexed at 100 points, productivity of France, Germany, and Great Britain is 82%, 78%, and 62%, respectively (Ministerie van Sociale Zaken en Werkgelegenheid, 1997). Japan and the USA have lower productivity levels than these European countries.

It seems that these are two sides of the same coin suggesting that health-based selection processes take place in the Dutch labor market. Houtman and Kompier (1995) described this typical Dutch "healthy worker effect" of eliminating from the active labor force the least healthy workers (nearly 20% of the Dutch workforce receives sickness or disability pensions). There are indications that employers are keen to select the most healthy and 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—thus, productive This process of health-based selection is costly in terms of individual health and well-being and in terms of national finances. As long as increases in work productivity could cover costs due to increased sickness absenteeism and work incapacitation, the Dutch system was more or less in balance. But in the early 1990s the costs of absenteeism and work incapacitation had risen so dramatically that the system was about to collapse

WHAT LEGAL FRAMEWORK AND NATIONAL INFRASTRUCTURE EXISTS?

The Working Conditions Act (WCA)

After a 10-year period of step-by-step introduction, the Dutch Working Conditions Act (WCA) was finally issued on October 1, 1990, as the successor of the antiquated Safety Act of 1934. As a result of the implementation of the EU Framework Directive in 1994, important amendments were made By November 1, 1999, a completely new version of the WCA came into force (Staatsblad, 1999, p. 184). The WCA is inspired by similar Swedish legislation and defines the role of the employers, the employees, the works council, the Labor Inspectorate, and the Ministry of Social Affairs and Employment. In addition, the WCA provides the legal basis for the tasks and the certification of Occupational Health and Safety Services (OHSS). The WCA aims at increasing the level of safety in the workplace and maintaining, casu quo improving, both mental and physical health, as well as worker 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 employee 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 favors collective, organization based preventive measures instead of individual curative measures.

As to the psychosocial aspects of work the WCA states that.

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

As far as some obligations for employers are concerned, the WCA states:

- An active policy of 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 OHSS to assist in: (a) approving or carrying out the risk-inventory and assessments as well as the plan of action; (b) social-medical guidance of sick employees (including drawing up a work resumption plan); (c) carrying out periodic medical examinations, (d) holding a working conditions surgery.

The WCA is administered by the Labor Inspectorate, part of the Ministry of Social Affairs and Employment. The Inspectorate may impose administrative fines when employers violate the WCA; in the case of grave violations, employers may be pursued under criminal law. Instead of focusing on a negative approach by imposing sanctions, the official government policy toward maintaining and implementing the WCA is rather positive. Compliance is encouraged, for instance, by providing information through brochures and leaflets, by granting the development of instruments for assessing psychosocial risks, by stimulating preventive programs as examples of good practice, and by disseminating knowledge through conferences, workshops, training programs, books, and the Internet.

Additional Relevant Legislation

In the second half of the 1990s, supplementary legislative measures were put into force to reduce sickness absenteeism and work disability rates and their associated financial costs. For instance, in order to stimulate an active and preventive working conditions policy from their side, employers in a particular branch of industry have to pay higher social insurance premiums in case sickness absence rates or work disablement rates rise. Furthermore, how individual disability benefits are calculated has been changed. In most cases this leads to lower benefits. Accordingly, both employers and employees have to pay for the huge costs associated with high absenteeism and work incapacitation rates On the other side, it was made financially more attractive for employers to hire persons with a handicap or persons who receive a work disability 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 closed a contract with an OHSS, the remaining 5% include exclusively small companies with fewer than 10 employees (Arbeidsinspectie, 1999)

In order to operate on a legal basis OHSSs must be certified. This certificate can be obtained from private certifying companies if the OHSS complies to certain legal and quality criteria. Each OHSS should at least employ 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 supposed to cooperate as a team. In addition, many OHSSs have employed human factor specialists for ergonomic consultation, and work and organizational psychologists for individual counseling and treatment of workers

The Work & Organizational (W&O) Expert

The W&O expert is a newly defined profession, exclusively employed in OHSSs Training of W&O experts takes places in three postgraduate 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 at that time, for every 25,200 workers one expert was available (Van Wieringen & Langenhuysen, 1997). It is estimated that in 1999 about 280 W&O experts (full-time equivalents) are employed in all Dutch OHSSs, roughly one expert for every 17,500 workers.

Instead of primarily working with individual workers, the W&O expert is supposed 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 absenteeism, (4) coordination and integration of measures—that is, acting as a liaison between the company and the OHSS team.

WHAT ARE THE POINTS OF VIEW OF EMPLOYERS ORGANIZATIONS AND UNIONS?

Organizations of Employers

Employers tend to argue that nowadays employees have shorter working weeks than they had in the past, but that employees now 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 professionel* (i.e., work-related causes) and the *risque sociale* (i.e., remaining causes) of sickness absenteeism and work disability.

Generally speaking, employers tend to interpret employee health problems, sickness, and work disability by either pointing at the impact of the nonwork situation (life stress) or by blaming factors within the individual (medicalization). Employer organizations also suggest stricter medical examinations for those who qualify for a work disability benefit.

Trade Unions

During the last decade, Dutch trade unions have become more active in the field of occupational stress. Recently, the largest Dutch trade union (FNV) has started a campaign among their members that includes the distribution of informative brochures on job stress and work pressure. Dutch trade unions have also carried out various large surveys on job stress in various branches of industry not only to estimate the size of the problem and study the contributing factors but also to find out which solutions are suggested by their members (Warning, 2000). Furthermore, an easy-to-use instrument to analyze stress at work was developed, the "Quick Scan work pressure" (Nelemans, 1997). Traditionally, trade unions are keen to point at the causal role of work-related factors in employee health complaints, sickness absence, and work disability. They stress the importance of early rehabilitation, since it has been shown that after a few weeks of sickness the prognosis of work resumption deteriorates dramatically (Schroer, 1993).

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

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 20 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) that cover (a) the job content, (b) working conditions, (c) terms of employment, and (d) social relations at work. Sample questions that are scored in yes/no format are "Are many tasks performed with a short work-cycle of less than 1.5 minute?" (job content), "Are there dangerous situations in the workplace?" (working conditions); "Are workers being replaced in case of sickness absentecism?" (terms of employment); "Are workers being discriminated because of their gender, age or race?" (social relations at work). These checklists, administered at the company or work-team level, include between 10 and 20 items that are scored individually. Since no statistical norms are available, the prevalence of psychosocial risk factors cannot be assessed validly.

One of the Dutch labor unions has developed a checklist for psychosocial risk factors at work as well: the "Quick Scan work pressure" (Nelemans, 1997), which is particularly geared toward the assessment of quantitative and qualitative workload. The instrument, of which a computerized version also exists, has been distributed among members of the union to be used by local works councils.

An example of an expert or secondary level approach is the WEBA[4]-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 based on independent and more or less objective indicators (e.g., job descriptions, expert ratings), instead of on the worker's own subjective judgments. It assesses risks at job level, *not* at the 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. These interventions include job rotation, regulation of workload, creating feedback loops, elimination of social isolation, changing the work order, and increasing participation in decision making. The instrument became rather popular; a survey held in the early 1990s indicated that more than one fourth 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-Report Questionnaires

As in other countries, job stress questionnaires are quite popular in the Netherlands, probably because they provide an efficient way to gather detailed

[4]WElzijn Bij de Arbeid

information from relatively large groups of workers (Evers, 1995). Most Dutch questionnaires in this field contain sets of questions with respect to various aspects of the job, including psychosocial risk factors and possible consequences for mental health and well-being. By aggregating scores of individual workers at the unit or job level and comparing them with other units, or with similar jobs, relative risks can be evaluated—a process known as benchmarking. Although different questionnaires are available, the most promising and widely used instrument is the VBBA-inventory (from the Dutch acronym Vragenlijst Beleving en Beoordeling van de Arbeid [Questionnaire on the Experience and Assessment of Work]; Van Veldhoven, Meijman, Broersen, & Fortuin, 1997). This questionnaire has been carefully psychometrically constructed and is actively promoted by a foundation that acts as a research and development 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 with 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, worrying, quality of sleep, emotional reactions, disengagement). The first three sections include job stressors or psychosocial 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-1980s an ambitious project was granted by the Dutch Ministry of Social Affairs. Its aim was the development of a *stressomat*, a toolbox to measure objective psychophysiological stress reactions, mainly cardiovascular and respiratory reactions elicited by standardized computerized laboratory tests. After several years this program was ended because of problems with the reliability, validity, and practicability of these tests.

Administrative Data

Stimulated by the working conditions and sickness absence legislation, all companies—sometimes assisted by their OHSS—analyze their sickness absence rates and work disability rates. In order to facilitate this, national standards for the analysis of both sickness duration and sickness frequency—including simple 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 section).

WHAT PREVENTIVE MEASURES ARE TAKEN?

Government Initiatives

The Dutch government has actively stimulated preventive programs to reduce job stress and sickness absenteeism in organizations. At the end of the 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 transferring experience. One of the first steps was the development of the *Handbook Work Stress* (Kompier & Marcelissen, 1990). This book provides both a theoretical and practical framework for the prevention of job stress at the company level. It emphasizes a systematic, stepwise approach and an adequate stress audit (diagnosis) as a basis for possible preventive measures. Several instruments (see above) are introduced to measure risk factors and to identify risk groups in the psychosocial work environment. Much attention is devoted to 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).

In addition, the government funded research on job stress and conducted a national study on identifying risk factors and risk groups (Houtman & Kompier, 1995). A national monitoring instrument on job stress and physical load was implemented (Houtman et al., 1998). This instrument was administered in 1993 and again in 1995–1996 to a large representative sample of the Dutch labor force and of Dutch companies.

Finally, organization-based intervention projects were granted in order to establish so-called examples of good preventive practice. The major aim was to

develop evidence-based practical guidelines for setting up such prevention 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, & Grundemann, 1999), a construction company (Cooper, Liukkonen, & Cartwright, 1996, pp 25–48), and in three community mental health centers (Van Gorp & Schaufeli, 1996). Based on these four projects, the knowledge and experience gained through a manual was written containing detailed guidelines on how organizations can set up programs to reduce job stress and promote worker health (Janssen, Nijhuis, Lourijsen, & Schaufeli, 1996). In this manual a 5-step approach is outlined: (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, and (5) evaluation of interventions. This approach follows the steps that are outlined in the previously mentioned *Handbook Work Stress* and are similar to those of the so-called control cycle, introduced by Cox and Cox (1993)

A recent investigation of 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., didactic stress management) are used most frequently, by over 9% of all surveyed organizations (Houtman, Zuidhof, & Van den Heuvel, 1998). Other stress reduction measures are 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 with 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 increasing employee motivation and involvement (70%) and reducing absenteeism (62%). Complying with legal obligations was mentioned by just 31% of employers.

Although empirical research on organization-based interventions to prevent and reduce job stress is still rather scarce (Kompier & Kristensen, in press), substantial progress has been made over the last decade This is true 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 are concerned, 10 such natural experiments were analyzed using a multiple case study approach (Kompier, Geurts, Grundemann, Vink, & Smulders, 1998) Results showed that in most cases sickness absenteeism was reduced and that the financial benefits often exceeded 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-centered and person-centered), (4) a participatory approach (i e . worker involvement), and (5) top management support More recently, intervention studies have been carried out in a European context with comparable results (Kompier & Cooper, 1999).

DISCUSSION

The purpose of this article 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, five dealt with above. In this final section we comment on each of the five issues raised above and then we address the sixth question, that is, what we might learn from the Dutch way of managing job stress.

Job Stress Is a Major Problem in the Netherlands

It seems that compared with other countries, job stress is a serious social problem in the Netherlands. The experienced work pressure is high and so are sickness absenteeism and work incapacitation rates, particularly as far as work-related mental problems are concerned. It looks as though this is the toll that a highly productive, competitive, and successful economy has to pay in terms of human costs. In recent years, however, the price for "squeezing out" the less healthy, less productive, and less motivated employees from the nation's labor force has become so high that it forced government to take drastic action. On the one hand, financial sanctions were enforced on employers to reduce sickness absence and work incapacitation rates, whereas on the other hand, the prevention of job stress in organizations was stimulated.

It is still too early to conclude whether these measures have been effective, although there are indications that positive initial effects in terms of a reduction of sickness absence and work incapacitation rates have faded away (Stichting van de Arbeid, 1999, Geurts, Kompier, & Grundemann, 2000). It is very difficult to estimate the impact of changes in legislation on sickness absence and work disability figures since Dutch society is a dynamic, open system. As a matter of fact, it seems rather puzzling that in a country like the Netherlands, where so many initiatives are taken in order reduce job stress, stress levels are so high. Of course, this could mean that those initiatives are not effective. However, it can also be speculated that these initiatives have countereffects, for example, information campaigns to raise the awareness of job stress might sensi-

tize employees for problems at work and thus increase perceived job stress. Thus, it cannot be ruled out that the unintended effect of measures to reduce stress is to produce it by drawing more attention to it.

The Comprehensive Legal Framework Is Difficult to Implement

The new legal framework on working conditions that was gradually introduced in the 1990s is based on quite modern principles such as active participation of employers and employees and risk prevention at the source. In addition, Dutch legislation embraces a positive and comprehensive health concept that is geared toward the improvement of physical health *as well as* worker well-being. Implementation of this legislation has proven to be difficult. It differs fundamentally from the traditional approach in occupational safety and health that is dominated by a rather technical and medically oriented approach focusing on the individual rather than on the integrated sociotechnical system in which the employee is working. It is difficult to think and act along the new lines formulated in the novel legislation, not only for professionals but also for employers (for quite different reasons, by the way). In a way, modern Dutch legislation on working conditions signifies the victory of a multidisciplinary approach to occupational health and safety that recognizes the unique contribution of the behavioral sciences. The most clear illustration is introduction of a new type of professional—the Work & Organizational Expert—who is supposed to play a crucial role in reducing job stress. Yet, the W&O experts—being members of a young and top-down institutionalized profession—are still in the process of defining their role in everyday practice. This is a difficult task in the business-like environment in which their employers, that is, privatized OHSSs, have to operate

Views of Employers and Unions Tend to Conflict

From the onset, legislation, particularly insofar as psychosocial factors are concerned, has been fiercely debated—politically in parliament and between employers and employees. Employers argue that the current legislation is unfair because they are held financially responsible for employee behaviors that are beyond their control—the so-called *risques sociales* such as sickness absenteeism due to personal or family problems or to sport 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* (Houtman et al., 1998). In contrast, Dutch labor unions have in recent years put much emphasis on work pressure and job stress as major themes in collective bargaining agreements with employers (Warning, 2000).

Psychosocial Risk Assessment Is Increasingly Carried Out

Less than 5 years after the legal obligation to conduct at regular intervals an inventory and assessment of psychosocial risks, almost 90% of organizations that employ over 100 workers comply (Arbeidsinspectie, 1999). In contrast, only about one third of the smaller companies employing fewer than 10 workers do so. Despite the fact that various instruments are available for assessing psychosocial risks, there seems to be a bottleneck to their use, especially in small and medium sized companies The Dutch government has taken a proactive stance in stimulating the development of various instruments—as well as implementing them It seems that among OHSSs, more and more consensus exists 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 were analyzed for almost 70,000 workers between 1995 and 1999 (Van Veldhoven, Broersen, & Fortuin, 1999).

Prevention of Job Stress Is Relatively Rare but Gains Importance

As with psychosocial risk assessment, the prevention of job stress is first and foremost an affair of 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 that employ fewer than 10 workers are much less active. The government played an active role in granting 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[2]—mainly by reducing work pressure—is relatively low, their frequency is increasing over the last years.

WHAT LESSONS MAY BE LEARNED?

Can we learn from the Dutch situation? Is it perhaps possible to formulate some lessons for the Dutch themselves, as well as for other countries? To some extent the situation in this country is unique. Industrial relations in the Netherlands are quite harmonious with a strong traditional emphasis on consensus building and cooperation 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 welcomed since

other EU 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 pursued an active policy toward the prevention of job stress. This includes issuing modern legislation and stimulating its implementation with positive incentives and facilitating initiatives rather than by using repressive measures against employers. This policy not only raised the awareness of job stress in the general public and in organizations, it also resulted in concrete products such as 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 toward the reduction and prevention of job stress.

Lesson 1 An active governmental policy toward job stress may prevent it from remaining a mere taboo subject and may put it on the political and company agendas.

However, it has also been pointed out that providing information on job stress, and thus fostering a greater awareness of the problem, might initially cause adverse effects because employees may be sensitized and be more likely to feel stressed.

Legislation and Legal Recognition of Psychosocial Work Factors

In Dutch working conditions legislation, psychosocial factors are comparably recognized as other work constraints such as physical, biological, or toxical 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). From the point of view of modern worker protection such legislation is crucial

Lesson 3: Such legislation and a corresponding national working conditions administrative infrastructure (the OHSSs) is crucially important to stimulate organizations to take action

However, a legal and administrative infrastructure is a necessary but insufficient condition to guarantee employee 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 who have a chronic disease). Such undesirable effects probably stem from the fact that employers are held responsible for the financial costs of sickness absenteeism and work disability, regardless of its causes. As we have seen, in the Netherlands, no distinction is made between the *risque professionel* and *risque sociale*

Lesson 4: Special attention should be addressed to small and medium sized companies that often lack special expertise for risk assessment and risk prevention. Branch organizations could play a stimulating 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 depending on their customers. These customers—employers—tend to buy exclusively those services from OHSSs to which they are legally forced. In practice, this means that the work of OHSSs is often reduced to the rehabilitation of individual sick workers, instead of tackling the problems at the source—that is, 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 have seen before, several studies have concentrated on the prevention of job stress. Although we surely need more of these studies 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 would like to point at a positive consequence of the broad Dutch attention to job stress, that is, a positive research climate in this field. To date there is a flourishing field of occupational health psychology. In many universities programs in occupational health psychology are offered, and many students are enrolled in postgraduate courses. Over the past 2 decades an active research community has developed, which operates 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 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 for job stress. However, governmental policies—and to a somewhat lesser extent company policies—have been influenced by research in the field.

It remains to be seen to what degree the management of job stress in the Netherlands, a system strongly built on the notion of consensus-building among employers, employees, and the government, contains useful elements that may be applied in other national contexts—among other elements, the seven lessons

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Stress Induced Oral Behaviors and Facial Pain

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Facial pain is frequently associated with environmental stress and emotional distress. One hypothetical mechanism by which stress is translated into pain is through stress induced motor function (e.g., teeth clenching, grinding, nail biting) Existent data partially supports these stress-hyperactivity models although they have also come under theoretical and empirical attack The purpose of this study was to examine the relationship between oral behaviors and pain in an analog sample of facial pain sufferers and student controls. Subjects engaged in a controlled clenching task and reported on subjective facial pain intensity and unpleasantness at 5 specified times over the subsequent 48 hours A one-way ANCOVA indicated group differences in self reported oral habits ($p < .05$) *with the facial pain group reporting great frequency of oral habits Two repeated measures ANCOVAs (i.e., pain intensity and pain unpleasantness), controlling for baseline pain ratings, indicated a between groups effect with facial pain sufferers experiencing significantly greater pain over the 48 hours postexperiment* ($p < .05$). *This study supports a hyperactivity model of facial pain and provides clues about relevant factors in facial pain development.*

KEY WORDS: facial pain, myofascial pain, oral habits, hyperactivity

Hyperactivity models of facial pain (e.g , myofascial pain, headache) postulate that psychological stress is translated into maladaptive motor function (i e., oral behaviors such as teeth clenching, teeth grinding, nail biting, gum chewing) that is directly and causally related to the development of pain. This relationship first gained general acceptance following the publication of Laskin's (1969)

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