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'Management Standards' and work-related stress in the UK: Practical development

ROSANNA COUSINS†★, COLIN J. MACKAY†, SIMON D. CLARKE‡, CHRIS KELLY§, PETER J. KELLY† and RON H. McCAIG†

† Ergonomics, Health & Behavioural Sciences CTG, Health & Safety Executive, Magdalen House, Stanley Precinct, Bootle L20 3QZ, UK
‡ Epidemiology & Medical Statistics Unit, Health & Safety Executive, Magdalen House, Stanley Precinct, Bootle L20 3QZ, UK
§ Work Psychology Unit, Health & Safety Laboratory, Broad Lane, Sheffield S3 7HQ, UK

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Research commissioned for the UK's Health & Safety Executive (HSE) supports the view that a preventative, risk-assessment based approach would be more effective than case-based methods in achieving a nationwide reduction in work-related stress. The background to this approach is described and discussed in a companion paper in this issue (Mackay, Cousins, Kelly, Lee, & McCaig, 2004). The present paper describes the development of HSE's new stress Management Standards — which offer organizations continuous improvement through a three-phase stress preventative process — and the development of a supporting 'Indicator Tool' (a two-phase questionnaire to assess employee perceptions of working conditions). The Management Standards comprise a series of 'states to be achieved', which are statements of good practice in six key stressor areas: demands, control, support, relationships, role and organizational change. For each stressor area there is also a 'platform statement' that outlines the main aims to be achieved by the organization. This statement may include a target percentage of employees finding that the organization meets the standard: this matter will be settled after the standards have been assessed in a public consultation campaign. To use the new process, an organization's state can first be assessed using the Indicator Tool; liaising with workers in focus groups enables a further exploration of issues raised; finally, there may be formulation of interventions and subsequent review. It is not intended that the standards will be legally enforceable. HSE's aim is that they and the associated methodology will enable organizations to effectively tackle work-related stress, and subsequently reduce both its incidence and prevalence.

1. Introduction

Under the Health & Safety at Work, etc. Act 1974, employers in the UK have a duty under the law to ensure, so far as is reasonably practical, the health and safety of their employees at work. Initially the 'duty of care' was focused upon physical well-being, but with the

★Author for correspondence. e-mail: rosanna.cousins@hse.gsi.gov.uk

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increasing recognition that the experience of stress at work was having a negative impact on employees, there has been a shift in the interpretation to include both physical and mental well-being.

In 1991, the Health and Safety Executive (HSE), the body responsible for occupational safety and health in the UK, commissioned an overview of the scientific literature to assess the nature of work-related stress and inform ways to tackle the problem (Cox, 1993), following on from recognition of the scale (Hodgson, Jones, Elliot, & Osman, 1993) and importance (cf. Mackay *et al*., 2004) of this occupational health issue. In his seminal review, Cox (1993) noted that (1) there is evidence that the experience of stress at work is associated with changes in both behaviour and physiological function, which may both be harmful to employees' health; (2) only a minority of organizations were purposely practising stress management in their workplace; (3) most stress management interventions (although not in Scandinavia) were individually focused; (4) stressor reduction/hazard control is the most promising avenue for intervention; and (5) measurement of the current state of work-related stress and the effectiveness of an intervention require a standard, or target, to be meaningful.

A critical argument for tackling stress at work under the remit of UK health and safety law is that stress related to work must be risk assessed and managed like any other hazard (cf. *Reducing Risks, Protecting People*, HSE, 2001). Cox and colleagues have advocated such a risk assessment approach for managing work-related stress (Cox & Cox, 1993; Cox, Griffiths, & Randall, 1996), although Rick and Briner (2000) have questioned its effectiveness, largely based on the difficulties in recognizing psychological harm and hazards relative to their physical counterparts. Cooper and Cartwright (1997) acknowledge these difficulties, but suggest that greater skills and training could enable adequate risk assessments for stress in organizations. Indeed, Cooper and Cartwright (1997: 13) go on to assert that health and safety authorities in the UK and the EU should be 'providing appropriate advice and support to organisations to enable them to perform their own [risk] assessment' as an effective strategy for managing workplace stress. In line with this, HSE have developed the Management Standards programme, which is essentially a three-phase process based on a risk assessment to identify potential stressors in the workplace and associated targeted interventions. As part of the programme a questionnaire, or 'Indicator Tool', has been developed to assist organizations in screening for problems and, if necessary, obtaining further information on them (Figure 1).

Timms (2004) presented the case that standards are the cornerstone of sustainable risk control, and this should equally apply to psychosocial risk control. This is not new: Cox (1993) advocated that stress measurement has to be against standards or targets to provide any meaningful assessment. Much of the UK and EC legislation in Health & Safety sets out minimum acceptable standards, but, as Cox (1993) noted, organizations that are actively monitoring stress tend to be much more aspirational in their targets, preferring to evaluate their performance against standards of excellence. This suggests that a standard for assessing psychosocial risk factors associated with work-related stress should be much more informative than merely being a pass/fail marker. To be in line with the HSE's aims of making a population shift towards improved health and safety through effective stress management, a standard that acts as a yardstick to enable organizations to plot and target progress is likely to be most effective.

In April 1999, the Health & Safety Commission (HSC), the overall body responsible for health and safety in the UK, issued a Discussion Document called *Managing Stress at Work,* to encourage a debate about the best way to ensure that risks from work-related stress in Britain are properly controlled. A total of 845 responses were received; these came from a

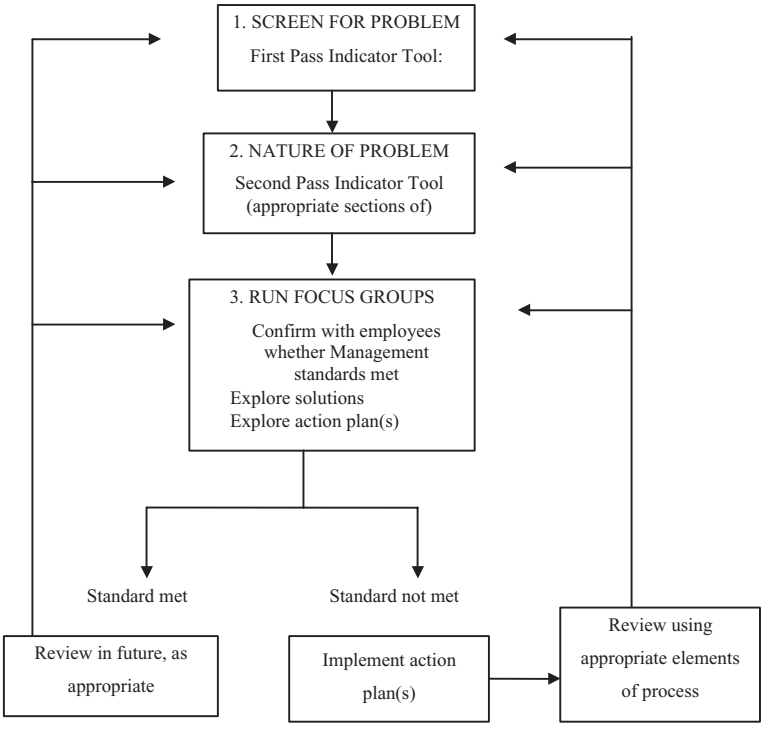

Figure 1. The process of doing a risk assessment for stress.

wide cross-section of people. Overwhelmingly (98%), respondents thought that more needed to be done to tackle stress, and 94% thought that stress at work is at least partially a health, safety and welfare issue. Moreover, respondents broadly supported the concept that the ideal was to prevent stress before it occurred, through the adoption of good job design, and good management practices, in line with a risk assessment approach. A range of options, which included formal Regulations (i.e. enforceable legislation) and an Approved Code of Practice (ACoP—a quasi-regulatory tool requiring more formal compliance than adhering to guidance) and targeted, but informal guidance, was suggested to support the discussion of what action the HSE should take on stress. However, there was no clear consensus. Comparison of employer and employee opinions indicated that equal proportions were in favour of an ACoP. Of those calling for something else, employees preferred stronger action (i.e. regulation), while employers preferred weaker action (i.e. guidance). The consultation also indicated that the proposed partnership approach would be favourably received.

Following from this, in 2000, the Health & Safety Commission agreed to the development of a plan, involving key partners, to tackle work-related stress. This plan included work to develop clear, agreed standards of good management practice for a range of stressors with the option to develop an ACoP later being kept under review.

The technical background to the Management Standards is described in the companion paper to the present one in this edition of *Work & Stress* (Mackay *et al*., 2004). That paper includes a flow diagram to illustrate their development (Mackay *et al*., 2004, Figure 1). The present paper describes the methodology in the development of the HSE's Management Standards approach. Briefly, there are three strands: Management Standards (and associated

'states to be achieved'), the risk-assessment process, and the risk Indicator Tool. Piloting, evaluation and revision of these three distinct component parts was separate, although necessarily overlapping both in time and in practice.

To summarize, the HSE's specific aim is that the introduction of Management Standards will enable organizations to adopt good management practices for tackling work-related stress, such that there is a reduction in the number of employees reporting that they suffer from work-related stress, and being absent from work as a result of workplace stress. In turn, this will contribute to the larger 10-year (2000–2010) *Revitalising Health & Safety* (DETR, 2000) targets to reduce the incidence of self-reported work-related illness by 20%, and to reduce the number of working days lost from work-related illness by 30%.

2. Management Standards

As outlined in the companion paper on HSE's Management Standards approach (Mackay *et al*., 2004), research has identified a taxonomy of work-related stressors. Specifically, there is accumulation of evidence that six particular stressors—demands, control, support, relationships at work, role and organizational change—have the potential to have a negative impact on employee well-being (and productivity), regardless of type or size of organization. HSE chose to focus on these six stressors to provide six Management Standards, and associated 'states to be achieved' that suggest generic principles and interventions that will achieve a positive effect for the workforce, and a reduction in the national incidence of work-related stress.

At the very beginning of our consultations, employers told us that any formal standards should be written in plain English, short and succinct, and applicable across organizations, irrespective of sector or size. A steering group made up of representatives from a HSE Stress Management Team consisting of psychologists, statisticians, epidemiologists and policy staff, called upon knowledge from the literature and commissioned research to consider (a) what is good/best practice, and following from that, (b) what an organization should be doing to manage threats to best practice, for each of the six areas we recognize as being central to managing work-related stress. The steering group developed a draft 'Platform Statement' (see Figure 2), for each of the six stressors (demand, control, support, relationships, role and change) indicating what is required in order to meet the standard. This statement included a percentage of employees indicating compliance with the standard, *to act as a target*, and series of decrees, each essentially a 'state to be achieved', that reflected some aspect of good management practice.

The remainder of this paper will outline the methodology that HSE used to develop the Management Standards. Here in Section 2 we describe workshops that underpinned the refining of the Management Standards themselves, including 'platform statements' and 'states to be achieved'. We then go on in Section 3 to illustrate and explain the risk assessment process and how it enables organizations to assess how well they are doing in managing risks to well-being in the modern workplace. Section 4 gives details of the development of HSE's Indicator Tool—a two-stage questionnaire—that can be used as an integral part of the risk assessment process. Finally, a Discussion section elaborates on how 'fit-for-purpose' the whole approach is, and considers the challenges of working towards continuous improvement in stress management.

DRAFT STANDARD — DEMANDS

The organization has achieved the standard if:

at least 85% of employees indicate that they are able to cope with the demands of their jobs; and
systems are in place locally to respond to any individual concerns

States to be achieved:

The organization provides employees (including managers) with adequate and achievable demands at work [D.S.1]

Job demands are assessed in terms of quantity, complexity, and intensity and are matched to people's skills and abilities [D.S.2]

Employees have the necessary competencies to be able to carry out the core functions of their job [D.S.3]

Employees who are given high demands are able to have a say over the way the work is undertaken (see standard on Control) [D.S.4]

Employees who are given high demands receive adequate support from their managers and colleagues (see standard on support) [D.S.5]

Employees in safety-critical roles are competent and able to cope with the pressures of their jobs [D.S.6]

Repetitive and boring jobs are limited, so far as is reasonably practicable [D.S.7]

Employees are not exposed to a poor physical working environment (the organization has undertaken a risk assessment to ensure that physical hazards are under appropriate controls) [D.S.8]

Employees are not exposed to physical violence or verbal abuse [D.S.9]

Employees are provided with mechanisms that enable them to raise concerns about health and safety issues (e.g. dangers — real or perceived, working conditions) and working patterns (e.g shift work systems, uncertain hours, etc.) and where necessary appropriate action is taken [D.S.10]

Figure 2. Draft, pre-pilot Management Standard for Demands. Each of the six Management Standards has a 'Platform Statement' at the beginning, which delineates how that Standard is achieved, and a series of 'states to be achieved', that outline best organizational practices.

2.1. *Workshops*

To consider whether the draft Management Standards adequately captured the principles of sound management practice to reduce the likelihood of employees suffering from work-related stress, the steering group organized a series of four workshops to consult with experts working in the stress field. The primary aim of the workshops was to guide the development and revision of the draft Management Standards so that the end product was comprehensive enough to capture the key issues known to be associated with the particular work-related stressors, realistic with regard to work situations, helpful to organizations in terms of intervening and fully accessible in terms of clarity.

2.1.1. *Participants:* The experts were drawn from a wide range of fields consistent with the multidisciplinary interest in work stress and included academics, trades union representatives, human resources specialists, lawyers, independent consultants, occupational psychologists and occupational physicians. An invitation to a workshop was sent out to all the experts that the HSE Stress Management Team knew to be working in the area. To ensure that we canvassed the opinion of as many relevant experts as possible, we also used a snowball approach whereby invited recipients could pass on the information to others we may have missed, and experts who were not able to attend the workshops could contribute via a questionnaire that accompanied the first round of invitations.

Initially, 64 experts were invited to the first workshop in July 2003. That grew to 75 through additional snowball sampling of invitees. Of these, 43 participants attended the workshop (and an additional eight experts who did not attend the workshop returned comments). This workshop was an all-day event held at Manchester Airport. The participants were largely academics and stress consultants, but there were also Trades Unions representatives and other relevant Occupational Health experts.

Approximately 86 invitations were sent out for the second workshop, resulting in 64 attendees. This all day workshop took place in September 2003 in a central London hotel. The participants were largely academics and stress consultants but also included Trades Unions officials, lawyers and some other Occupational Health experts.

Sixty-three participants attended the third workshop. This was incorporated into a Chartered Institute of Personnel and Development (CIPD) 'Managing Stress in the Workplace' training day in Manchester in November 2003. Half a day was given over to discussions of the draft Management Standards. All the participants were members of CIPD; most were working in Human Resources/Personnel offices of large organizations, with a few working as independent consultants.

Thirty-five participants attended the fourth workshop, which was organized in partnership with the UK's Advisory, Conciliation and Arbitration Service (ACAS). The participants were largely Trades Unions health and safety representatives. A full morning in November 2003 was dedicated to feeding back on the draft Management Standards.

2.1.2. *Workshop procedure:* An introductory letter and background briefing note was sent to participants in advance of the workshops. On the day, there was also a succinct presentation of the aims and objectives of HSE's Management Standards. Delegates were randomly appointed to small groups of 10–16, to deliberate the six Management Standards—and especially whether the 'states to be achieved' captured the issues associated with each of the six stressors adequately, noting gaps and overlaps.

Each workshop was facilitated by an experienced member of HSE's Stress Programme, supported by a dedicated note taker from HSE or CIPD. The workshops were deliberately solution focused—that is, when a problem or challenge was identified within the draft Management Standards, the group spend some time considering and suggesting the way to deal with it. A *rapporteur* for each group was appointed on the day to report back to other delegates in the feedback sessions. The *rapporteurs* were always one of the invited experts—independent of HSE.

The six Management Standards, relating to the six stressors that had been identified, were explored separately; there was also time for consideration of the validity and design of the approach, and the use of target percentages as part of the Management Standards. All the points made by the experts were noted and collated for formal evaluation. It is worth noting here that similar points were being raised at each of the workshops, and this enabled us to be confident that we had fully analysed the potentials of the draft Management Standards.

2.1.3. *Results of evaluation of the standards:* Workshop participants almost unanimously endorsed the idea of the Management Standards and the associated process. They particularly commended the value of an approach that moved away from mere identification of 'stress', and towards recognition that good management practices can avoid making people ill by their work. Delegates also welcomed an approach that was based on employee involvement, was outcome focused, and which can run alongside existing organizational systems. It was noted that supporting guidance was essential, as some of the 'states to be achieved' were very general, and hence vague. This has been accepted, and

guidance to accompany the Management Standards is now in preparation and will be published with them at the end of 2004. A sample of the issues raised can be seen in Figure 3 (a more detailed summary can be obtained from the corresponding author, on request).

The draft Management Standards that were submitted to the workshops contained 9 'states to be achieved' for Demands, 7 for Control, 5 for Support, 7 for Relationships, 6 for Role, and 6 for Change. Following from consideration by the experts and stakeholders, it was acknowledged that there were overlaps, a few gaps, and the potential for making the states to be achieved more focused and succinct. There was also a call for a clear 'essence' statement and for a revision of the platform statement of each Management Standard. Generally there was consensus on the issues raised—the major exception to this was with respect to the incorporation of target percentages in the Management Standards. There was almost a 50–50 division for and against inclusion. Of particular note, there was concern about whether the percentages given were a true reflection of sufficient/satisfactory stress management and whether having a percentage that in essence served as a pass/fail target was in accord with the HSE's broader aims of continuous improvement in stress management. These percentages have been provisionally set at 85% for Demands, Control and Support—based on evidence from the Whitehall 2 study (Head, Martikainen, Kumari, Kupes, & Marmot, 2002; Stansfeld, Head, & Marmot, 2000), and the Bristol Study (Smith, Brice, Collins, Matthews, & McNamara, 2000a; Smith, Johal, Wadsworth, Davey Smith, &

DRAFT STANDARD — DEMANDS

1. **The organization provides employees (including managers) with adequate and achievable demands at work**

Challenges

Problem with definitions – what does 'adequate' and 'achievable' mean?

May not adequately address external pressures (e.g. visit from schools standards organization – OFSTED)

Consider scrapping as the principles are contained within other states. Either that or provide definitions and linkages to other standards

Why are managers defined as a separate group of employees?

Need to define what is reasonable and agreed in terms of time frame.

Recommendations

Guidance should define what 'adequate' and 'achievable' are and how organizations can work with employees to assess whether they have the right balance. This would also help to overcome the 'external pressures' point and would be part of the assessment.

2. **Job demands are assessed in terms of quality, complexity, and intensity and are matched to people's skills and abilities**

Challenges

Wording will not work in a competency framework

Statement is generic

Needs to be split up to aid clarity – assessing 'quantity', 'complexity', and 'intensity' are likely to require different types of skills/information

If Demand State 2 (above) were properly worded, then Demand State 6 would not be needed. Demand States 2 and 3 may also cover the same things.

People's skills and abilities should be matched to the quantity, complexity and intensity of job demands – not the other way round.

Figure 3. An example of issues raised and suggestions for improvement to the Management Standards' 'states to be achieved' from expert and stakeholder consultation workshops, 2003.

Peters, 2000b); and 65% for Relationships, Role and Change—based on the acknowledgement that the evidence base that these stressors have a negative impact on health is not as developed.

On the positive side, the inclusion of target percentages in each of the Management Standards was recognized by some participants as beneficial in terms of providing organizations with a yardstick to show how well they are performing in terms of stress management. Proponents for target percentages acknowledged that this benchmarking opportunity would remain, regardless of whether the target percentages were 'up front' in the platform statement, or presented in guidance accompanying the standards. It was recognized that there are perceptual differences in the authority of target percentages according to their position in the material published by HSE. Specifically, having a target percentage as an integral part of the Management Standards gives more of an impression of pass/fail and conformity than would target percentages that were only included in accompanying guidance. The status of the percentages—whether they remain part of the Management Standard, whether they are presented in guidance as a yardstick for motivation and encouragement, or whether they are not included at all—is to be explored further in a public consultation exercise in Summer 2004. Following from that consultation, the level of any percentages associated with the Management Standards will be reviewed in the light of the results and evidence from ongoing research.

To summarize, the six initial draft Management Standards were revised using the consensus of opinion voiced at stakeholder workshops. Each Management Standard includes a 'platform statement', and 'states to be achieved' that are based on known best practice. The revised, pre-public consultation Management Standards contain 4 states to be achieved for Demands, 6 for Control, 6 for Support, 5 for Relationships, 4 for Role, and 5 for Change. These pre-consultation standards are shown in full in Figure 4. They will be further refined, as necessary, before the formal launch in Winter 2004.

3. Risk assessment process

To ascertain whether an organization is adequately managing the potential sources of work-related stress in their employees, and how they are doing with respect to the Management Standards, the organization will need to look at its policies and ask its workers, essentially by undertaking a (regular) risk assessment for stress. HSE recognized that this could be difficult for those organizations that have never investigated whether they have a problem with stress. In response to this, HSE developed a simple risk assessment methodology, or *process*, as part of the wider Management Standards programme of work. The aim of developing a simple but specific process of doing a risk assessment for stress, as illustrated in Figure 1, was to enable organizations to assess their current performance against the Management Standards, and to go on to further investigate any problem areas that are identified in the initial stages in consultation with employees and their representatives.

To examine whether the risk assessment process was suitable for stress management, HSE conducted a 12-month pilot exercise in a variety of volunteer organizations from both the public and private sectors. The aims of the pilot were to test:

- the given process of identifying hazards and introducing control measures for work-related stress; and
- the feasibility of implementing the draft Management Standards.

As part of the exercise of validating the process, the 'piloteers' were given a draft version of the HSE's indicator tool (which is described later) on which they were able to pass

MANAGEMENT STANDARDS

DEMANDS

— includes issues such as workload, work patterns, and the work environment

The standard is:

[XX% of] Employees indicate that they are able to deal with the demands of their jobs; and

Systems are in place for individuals' concerns to be raised and addressed

States to be achieved:

DS1: The organization provides employees with adequate and achievable demands in relation to the agreed hours of work

DS2: People skills and abilities are matched to the job demands

DS3: Jobs are designed to be within the capabilities of employees

DS4: Employees' concerns about their work environment are addressed

CONTROL

— how much say the person has in the way they do their work

The standard is:

[XX% of] Employees indicate that they are able to have a say about the way they work; and

Systems are in place for individuals' concerns to be raised and addressed

States to be achieved:

CoS1: Where possible, employees have control over their pace of work

CoS2: Employees are encouraged to use their skills and initiative to do their work

CoS3: Where possible employees are encouraged to develop new skills to help them undertake new and challenging pieces of work

CoS4: The organization encourages employees to develop their skills

CoS5: Employees have a say over when breaks can be taken

CoS6: Employees are consulted over their work patterns

SUPPORT

— includes the encouragement, sponsorship and resources provided by the organization, line management and colleagues

The standard is:

[XX% of] Employees indicate that they receive adequate support at work; and

Systems are in place for individuals' concerns to be raised and addressed

States to be achieved:

SS1: The organization has policies and procedures to adequately support employees

SS2: Systems are in place to enable and encourage managers to support their staff

SS3: Systems are in place to enable and encourage employees to support their colleagues

SS4: Employees know what support is available and how and when to access it

SS5: Employees know how to access the required resources to do their job

SS6: Employees receive regular and constructive feedback

RELATIONSHIPS

— includes promoting positive working to avoid conflict and dealing with unacceptable behaviour

The standard is:

[XX% of] Employees indicate that they are satisfied with the behaviour of work colleagues; and

Risks arising from unacceptable behaviour are appropriately managed

Systems are in place for individuals' concerns to be raised and addressed [this includes individuals and organization]

Figure 4 (*Continued*)

States to be achieved:

ReS1: The organization promotes positive behaviours at work to avoid conflict and ensure fairness

ReS2: Employees share information relevant to their work

ReS3: The organization has agreed policies and procedures to prevent or resolve unacceptable behaviour

ReS4: Systems are in place to enable and encourage managers to deal with unacceptable behaviour

ReS5: Systems are in place to enable and encourage employees to report unacceptable behaviour

ROLE

— whether people understand their role within the organization and whether the organization ensures that the person does not have conflicting roles

The standard is:

[XX% of] Employees indicate that their roles and responsibilities are clear and compatible; and
Systems are in place for individuals' concerns to be raised and addressed

States to be achieved:

RoS1: The organization ensures that, as far as possible, the different requirements it places upon employees are compatible

RoS2: The organization provides information to enable employees to understand their role and responsibilities

RoS3: The organization ensures that, as far as possible, the requirements it places upon employees are clear

RoS4: Systems are in place to enable employees to raise concerns about any uncertainties or conflicts they have in their role and responsibilities

CHANGE

— how organizational change (large or small) is managed and communicated in the organization

The standard is:

[XX% of] Employees indicate that they are consulted about and offered the opportunity to participate in workplace changes; and

Systems are in place for individuals' concerns to be raised and addressed

States to be achieved:

ChS1: The organization provides employees with timely information to enable them to understand the reasons for proposed changes

ChS2: The organization ensures adequate employee consultation on changes and provides opportunities for employees to influence proposals

ChS3: Employees are aware of the probable impact of any changes to their jobs. If necessary, employees are given training to support any changes in their jobs

ChS4: Employees are aware of timetables for changes

ChS5: Employees have access to relevant support during changes

Figure 4. HSE Management Standards (pre-public consultation), as revised following stakeholder workshops. Each of the six standards has an initial 'Platform Statement' that delineates how the standard is achieved, and a series of 'states to be achieved'. The employee target percentages and their status — whether they appear within the standards or only in accompanying guidance — will be determined by the consultation campaign.

comment. However, the primary purpose of this pilot exercise was to determine the usefulness of the proposed risk assessment process. The indicator tool was formally refined using a separate, dedicated large pool of participants.

3.1. *Design of the risk assessment process*

The Management Standards risk assessment process is essentially a structured inquiry of working conditions that aims, in the first instance, to identify broad areas of potential concern in a particular workplace, and then goes on to explore the specifics with a view to providing targeted and effective interventions. In practice, this means that all employees are given a stress risk Indicator Tool, and then this is followed by more in-depth discussion (via a focus group) with a representative sample of employees (see Figure 1) that is informed by the outcomes of the Indicator Tool. The HSE Indicator Tool is essentially a two-part questionnaire that has been developed to enable all organizations to have access to a suitable measure of employees' perceptions of their working conditions. Use of HSE's Indicator Tool, however, is not mandatory, nor favoured above other formulations that can make a reliable and valid assessment of the risk of work-related stress in an organization.

The 'first pass' part of the Indicator Tool serves as a screen for problems in a particular area, and the 'second pass' examines more specifically the broad nature of the problem in any of the six stressor areas covered by the first pass of the Indicator Tool. The idea is that organizations can then 'home in' or focus on the idiosyncratic specifics of a problem area identified by the Indicator Tool by consulting with a representative sample of employees, and draw up an action plan that includes interventions to manage the problem(s). We acknowledge that small enterprises, or those organizations that are well acquainted with their 'hotspots' may prefer to make greater use of the focus group phase; this is well within the remit of the approach.

3.2. *Participants in pilot exercise*

Twenty-eight organizations initially agreed to pilot the Management Standards process. Two organizations withdrew very early on, due to incompatibility of the time limits imposed by the pilot exercise with structures for putting out staff surveys already in place in those organizations. Four other organizations withdrew during the course of the year, largely due to business pressures and large-scale change. The 22 organizations who remained committed to the pilot included both public and private organizations. The participating organizations were composed of four government departments, five local councils and one other local government organization, two energy production and supply businesses, a rail engineering firm, a financial institution, an insurance company, two multinational manufacturing businesses, a university, a college, a National Health Service trust, a police force and a charity.

Individual participants in the pilot included supervisors, managers, factory operatives, administrative staff, front line office staff, teachers, lecturers, salespersons, call centre staff, council employees, policemen, doctors, nurses and scientists. The total number of employees from the 22 organizations participating in the pilot exercise was approximately 11,000; the range of organization size was from 26 in one organization to 6,000 in another.

The individual pilot organizations were able to select the part of their organization to take part in the pilot. Some selected different parts of the organization so as to give a 'diagonal slice', whereas others chose to use a self-contained unit. Two of the smaller organizations included everyone in the organization.

3.3. *Pilot procedure*

The pilot study commenced in April 2003, and ran for 8 months until December 2003. The pilot organizations were given 'The Management Standards Piloteers' Pack' as a means of getting started, and each pilot organization was assigned a 'buddy' from the HSE Stress Management Team for support and feedback, as needed.

The pilot pack was essentially a resource guide that described the *Pilot Process* (Figure 5), and gave details of each step of the process.

This pack was also released onto the HSE website (www.hse.gov.uk/stress), so other organizations could make use of the initiative. The fact that the contents of the pack were developmental was clearly noted on the cover, and the fact that both the Indicator Tool, and the Management Standards were still in draft format was clearly emblazoned on the documentation. HSE was content for the information to be used, and encouraged feedback and comments for the further development of the materials.

The remainder of this section gives a flavour of the experimental work involved in piloting the process. We must emphasize here that the process was designed to be flexible, and as a consequence of this there were differences in interpretation and action in the different organizations that took part in the pilot.

First, the pilot organizations administered the six items of the first pass of the draft Indicator Tool to employees. This was achieved using paper copy, by e-mail, and by local intranet. The responses were then loaded into an Excel database provided by HSE. The database allowed computation of the percentage of employees that endorsed the 'good' aspects of each question (e.g. always, often). These percentages were given and presented using a traffic lights analogy to show their relationship to the figures of the Management Standards. That is, organizations were given a 'green light' if they achieved the draft Management Standard threshold of 85% of employees endorsing the positive alternatives ('agree' or 'strongly agree') to Demands, Control and Support, and 65% of employees endorsing the positive alternatives to Relationships, Role and Change. The use of these thresholds in the draft (pre-public consultation) standards is discussed in Mackay *et al*. (2004).

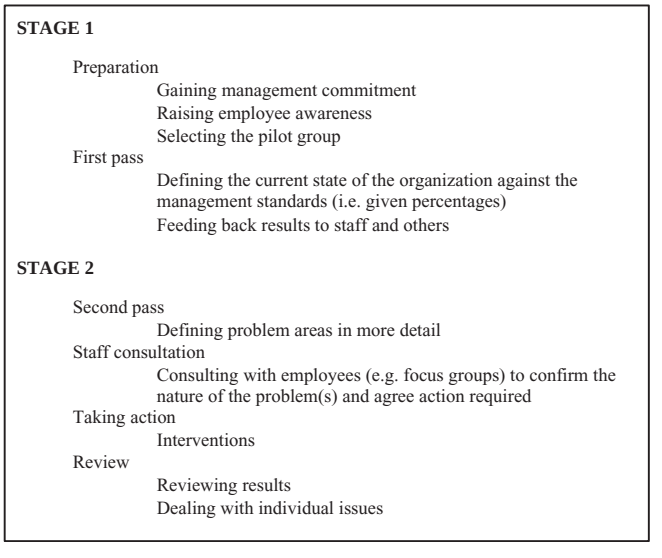

Figure 5. The Pilot Process.

Green was used to indicate that employees, as a group, were not experiencing work-related stress because of a problem in that specific area, and therefore there was no need to go on to investigate that particular domain further using the second pass of the Indicator Tool. However, 'scores' of less than the standards given above—as indicated by an amber or a red—were to be seen as indicating a problem in that area, and that the second pass should be given to further define the problem.

The second pass of the Indicator Tool can be different for different organizations, as it is tailored to consist of only items from those areas that had not reached the target percentage of the relevant Management Standard. Some organizations told us, however, that they had used all of the second pass because they were not confident of the results they had achieved from the first pass—for example, because despite reaching the target percentage of a Management Standard, they had a known problem in that domain(s), or because they had achieved borderline 'pass'. These organizations had thus gone on to run more of the second pass questionnaires than the process dictated, or indeed all the second pass questionnaires, and this gave us additional useful information. Employee data from the second pass of the Indicator Tool was entered into Excel databases, in the same way as at first pass, for calculation of the percentage of employees endorsing each of the items at second pass. A similar traffic light system was used at second pass.

There were three organizations that used their own staff survey, which was redefined in terms of the six Management Standards for the purpose of piloting the Management Standards process. One organization acknowledged that they had a gap in what was being asked in one stressor area, so they inserted a couple of additional questions. At the evaluation of outcomes stage, a very similar system of using percentages to consider employee's perceptions of working conditions was used.

The feedback from the two phases of the Indicator Tool allowed organizations to begin to see strengths and weaknesses in their approach to stress management. To move this forward towards improving the situation, the third phase of the process would be to run a series of focus groups, to allow employees to confirm or challenge the nature of problems identified by the Indicator Tool, to explore the issues further and define them in more detail, to be able to raise additional locally relevant issues, and critically, to suggest ways of improving the situation. To help organizations with this third, crucial, phase HSE developed an interventions guide (*Real Solutions, Real People: A Manager's Guide to Tackling Work-related Stress*; HSE, 2003), which includes additional information on the risk assessment approach, basic good advice in the form of a series of 'dos and don'ts', 18 case studies outlining effective interventions that can be generalized to other situations, and guidance towards making an action plan for stress management. We suggested that organizations might benefit from considering the interventions made in the selected case studies in this publication as a means of getting started with their own situation.

While the piloteer organizations had a great deal of autonomy in the way they participated in the Management Standards pilot, they were also given substantial support from HSE. This took the form of the provision of materials, having a dedicated 'buddy' to assist with any queries they had, and regular feedback meetings with HSE's Stress Team and other piloteers to share experiences. Feedback to HSE came via the buddying system and via a formal follow up by psychologists at the Health & Safety Laboratory (HSL). The Evaluation of the Management Standards Pilot Study undertaken by the HSL is published on HSE's website (www.hse.gov.uk/stress).

3.4. *Outcomes from the pilot procedure*

The organizations that piloted the process developed to support the Management Standards all fully endorsed the methodology. The risk assessment process using an Indicator Tool together with consultation with employees to 'manage stress together' was deemed to be effective.

To further explore the intricacies of the proposed Management Standards programme, the pilot organizations were also asked to report on other practices they may have undertaken in the course of piloting the proposed methodology for the Management Standards. The following questions were asked.

1. *How easy was it to secure senior management commitment? How was this achieved?* The Piloteers all confirmed that senior management commitment was critical to the success of any stress management initiatives. There was not a major problem with any of the participating organizations, whose Human Resources or Occupational Health Departments already agreed that there are benefits to managing work-related stress for the organization. Nevertheless, almost all the departments had had to present a formal 'business case' that outlined particular business and social benefits, such as improved absence rates and improved productivity, to senior management. HSE had provided a draft business case to help piloteers with this, and their feedback will help to inform revisions (see also http://www.hse.gov.uk/workers/involvement/businessbenefits/index.htm for a series of 19 case studies that provide a general business case for good health and safety management).
2. *How well did the process fit into existing HR policies and processes?* Some organizations reported that they would have to make changes to existing staff surveys, and their timings. Most were not currently consulting with their employees in the form of focus groups on a regular basis. Critically, the responses given were that the process would work well within current practices. There were some fears of 'questionnaire fatigue', but that was largely because the pilot phase was taking place on top of what the organizations were currently doing.
3. *How accurate was the supporting indicator tool in identifying key risks areas?* Piloteers recognized that some of the questions being asked were better than others. They called for revisions to items that, for example, were seen as being part of the job, or were ambiguous. Feedback to this section informed revision of the indicator tool, as described later. There were also some queries about the scoring methodology used in the Excel tool; specifically there were queries about the transformation of the original 4-point scale to a dichotomous format for translating the responses. For some items this did not work well, but this has been addressed in the revised Indicator Tool.
4. *Were there gaps in guidance for the piloteers and supporting information?* The consensus was that the information provided was comprehensive. Piloteers were also asked about the costs of implementing the Management Standards, whether any savings had been identified, and whether they had been any other unforeseen benefits or downsides. The evaluation of these responses is outside the scope of this paper and will be presented elsewhere.

As reported above, the draft Management Standards—indicator tool and process—were posted on the HSE website in June 2003, making them available to other organizations for use, and enabling them to feed back on their experiences. HSE received almost 1000 feedback e-mails, the majority of them from individuals in organizations. Most were positive, and very supportive of the whole package. Only two were negative—the

first was a complaint about not being able to get some peripheral information, and the other was airing a view that tackling stress would make UK plc anti-competitive, and ultimately be bad for business—which HSE would strongly argue is not the case.

To summarize, the process associated with the Management Standards was successfully applied in the 22 organizations that took part in HSE's pilot exercise. This has been further endorsed by other organizations who have used the materials on the website without the support of HSE. In our view, the risk assessment process described above and depicted in Figure 1, provides an effective approach to managing work-related stress.

4. Indicator Tool

HSE research has shown that no single questionnaire, on its own, is sufficient to assess all risks of work-related stress (Rick, Briner, Daniels, Perryman, & Guppy, 2001). Nevertheless, in the context of additional inquiry—such as the three-phase Management Standards approach described here—a questionnaire could be useful. To this end a questionnaire was developed to support the process (described above), but accepting the known limitations of structured questionnaires it was initially labelled a 'Filter Tool', and later termed an 'Indicator Tool' to reflect its ability to provide only a broad indication to organizations of how well their workforce considers they are performing in managing the risks associated with work-related stress.

4.1. *First draft of the Indicator Tool*

The first draft of the Management Standards Indicator Tool, which was used in the piloting of the process, described above, consisted of 6 'first pass' questions (one each for the 6 Management Standard areas of demands, control, support, relationships, role and change) and 39 'second pass' questions (4 for demands, 15 for control, 6 for support, 6 for relationships, 4 for role and 4 for change; these drafts of the first-pass and second-pass tools are available from the corresponding author on request). It essentially employed the Karasek items for demand, control and support, as adapted by Marmot *et al.* (1991) for the Whitehall II studies of stress and health outcomes; the items for relationships, role and change and the first pass were novel, and based on an assessment of their face validity relative to the respective Management Standard.

The use of a 'first pass' as an initial screen was strongly supported in early discussions between HSE and businesses. It should be noted, however, that while the majority of Piloteers went along with this suggested methodology, some preferred to go straight in at the second pass stage. This is perfectly acceptable: it supports the flexibility of the process and does not jeopardize the risk assessment.

4.2. *Revision of the draft Indicator Tool after the pilot stage*

Feedback from the pilot organizations and examination of the full scope of each Management Standard strongly suggested that the Indicator Tool needed further development. To this end the authors undertook a review of items that had been used to access work-related stress in the published literature. This included revisiting the measures reviewed by Rick *et al.* (2001), measures that are being used elsewhere in Europe (e.g. APP: Runeson & Kjölsrud, 2002; COPSOQ: Kristensen & Borg, 2000; Kristensen, 2002; SIGMA: Salewski-Renner, Zimolong, & Windel, 1997), published Whitehall II papers (cf. Head *et al.*, 2002), recent specific measures of distress (Cousins, Davies,

Turnbull, & Playfer, 2002), and the items constructed for piloting the risk assessment process. Following from this review, a pool of 100 questions that broadly represented all aspects of the 6 Management Standards was constructed with the intention of developing an Indicator Tool that was comprehensive in coverage and statistically reliable and valid.

Questions were largely accurately copied into the item pool, but some were slightly altered to enable them to be answered according to a preferred 5-point Likert scale format (as opposed to the original 4-point scale). We used two alternative response formats: a frequency response (always to never) and an agree format (strongly disagree to strongly agree).

The 100-item 'pool' questionnaire was piloted in the Children and Family Services (CFS) Division (which includes the education sector) of Hertfordshire County Council. The questionnaire was distributed in 611 batches through Heads of local units of CFS. In total 16,016 questionnaires were sent, but the exact numbers of staff receiving these is unknown as there were inaccuracies in the staff database. However, 3147 questionnaires were returned completed. Based on questionnaires sent this represents a response rate of 19.5%, although given that total staff numbers were estimated at nearer 15,000 the response rate was probably a little higher.

4.3. *Analyses and revision*

The data from the 100-item 'pool' questionnaire ($N = 3147$) were entered into a database in SPSS version 10. An exploratory factor analysis was used to extract factors best representing the six Standards areas. Given the known overlap of the stressor areas represented in the Management Standards, an oblique Promax rotation method was employed to ensure maximal loading on the factors extracted.

The factor extraction was initially performed on a random 50% of the data and the number of factors extracted was based on an assessment of the Scree plot, consideration of the six Management Standards and assessment of the proportion of variance explained by an increasing number of factors. Initially eight factors were extracted on this basis. The factor structure was re-assessed in various sub populations by age, gender, occupation and early and late response. Items were removed one or two at a time and the factor structure was reconsidered.

A number of criteria were applied to reduce the scales. These were that item loadings should be greater than .5 on the loading factor and at least .2 above that for any other factor, to indicate that the item is conceptually distinct. Also, an item should have its highest loading on the same scale when re-factored across the different subgroups. One of the factors disappeared during this process, leaving seven factors. The aim was to ensure that the loadings on each factor were as high as possible, and as 'clean' as possible. Correlations between items within the 7 factors were then assessed. Correlations greater than .7 resulted in removal of one of the items on the basis that these item pairs were basically asking the same thing (cf. Cohen & Cohen, 1983). The criteria for choosing which item to discard were (lower) factor loading and perceived face validity. The resultant factor structure was then tested in the second random 50% data sample ($n = 1575$) to ensure its stability. It is worth noting here that factor loadings for the final scale fulfilled the *a priori* aims, as the vast majority of loadings for each item in the oblique Promax rotation were very small, yielding a high loading onto a single factor only.

The final factor loadings from the full dataset along with individual scale reliabilities are shown in Table 1.

Table 1. Promax factor analysis of Indicator Tool.

Scale and item	Loading	α
Demands		.89
I am pressured to work long hours	.79	
I have unachievable deadlines	.77	
I have to work very fast	.80	
I have to work very intensively	.77	
I have to neglect some tasks because I have too much to do	.75	
Different groups at work demand things from me that are hard to combine	.66	
I am unable to take sufficient breaks	.61	
I have unrealistic time pressures	.84	
Control		.78
I can decide when to take a break	.78	
I have a say in my own work speed	.71	
Do you have a choice in deciding what you do at work?	.71	
Do you have a choice in deciding how you do your work?	.70	
I have some say over the way I work	.54	
My working time can be flexible	.64	
Support – Managerial		.87
I am given supportive feedback on the work I do	.66	
I can rely on my line manager to help me out with a work problem	.65	
I can talk to my line manager about something that has upset or annoyed me about work	.74	
I am supported through emotionally demanding work	.62	
My line manager encourages me	.77	
Support – Colleague		.81
If work gets difficult, my colleagues will help me	.87	
I get help and support I need from colleagues	.85	
I get the respect I deserve from my colleagues	.56	
My colleagues are willing to listen to my work-related problems	.75	
Relationships		.78
There is friction or anger between colleagues	.62	
I am subject to personal harassment in the form of unkind words or behaviour	.83	
I am subject to bullying at work	.83	
Relationships at work are strained	.60	
Role		.83
I am clear what is expected of me at work	.80	
I am clear about the goals and objectives for my department	.66	
I know how to go about getting my job done	.84	
I am clear what my duties and responsibilities are	.83	
I understand how my work fits into the overall aim of the organization	.62	
Change		.83
Staff are consulted about change at work	.86	
I have sufficient opportunities to question managers about change	.68	
When changes are made, I am clear how they will work out in practice	.76	

Loadings are for Promax rotation. Total variance accounted for = 62.56%. Scale reliabilities measurements: Cronbach's α.

The revised Indicator Tool consists of 35 items and seven subscales. There is one factor for each of demands (8 items), control (6 items), relationships (4 items), role (5 items) and change (3 items), with the factor analysis indicating that *Support* is made up of two distinct factors according to source. It makes intuitive sense that there is a difference between managerial support (5 items) and peer support (4 items); and to appreciate the distinction should be helpful if an organization is considering ways to support their workforce. The final, revised Indicator Tool is shown in Figure 6.

INDICATOR TOOL

Demands (8 items)

Scored on a 5-point LIKERT scale 'never', 'seldom','sometimes','often','always':

I am pressured to work long hours
I have unachievable deadlines
I have to work very fast
I have to work very intensively
I have to neglect some tasks because I have too much to do
Different groups at work demand things from me that are hard to combine
I am unable to take sufficient breaks
*I have unrealistic time pressures

Control (6 items)

Scored on a 5-point scale 'never' to 'always':

I can decide when to take a break
I have a say in my own work speed
*I have a choice in deciding what I do at work?
I have a choice in deciding how I do my work?

Scored on a 5-point scale 'strongly agree', 'agree', 'neutral', 'disagree', 'strongly disagree':

I have some say over the way I work
My working time can be flexible

Managerial support (5 items)

I am given supportive feedback on the work I do *('never' to 'always')*
I can rely on my line manager to help me out with a work problem *('never' to 'always')*

'Strongly agree' to 'strongly disagree':

I can talk to my line manager about something that has upset or annoyed me about work
I am supported through emotionally demanding work
*My line manager encourages me at work

Work colleague support (4 items)

If the work gets difficult, my colleagues will help me *('never' to 'always')*
I get the help and support I need from colleagues *('strongly agree' to 'strongly disagree')*
*I receive the respect I deserve from my colleagues at work *('strongly agree' to 'strongly disagree')*
My colleagues are willing to listen to my work-related problems *('strongly agree' to 'strongly disagree')*

Role (5 items)

Scored 'never' to 'always'

I am clear what is expected of me at work
I am clear about the goals and objectives for my department
I know how to go about getting my job done
*I am clear what my duties and responsibilities are
I understand how my work fits into the overall aims of the organization

Relationships (4 items)

(Scored 'never' to 'always')

There is friction or anger between colleagues
I am subject to personal harassment in the form of unkind words or behaviour
*I am subject to bullying at work
*Relationships at work are strained

Change (3 items)

Scored 'strongly agree' to 'strongly disagree':

*Staff are consulted about change at work
I have sufficient opportunities to question managers about change at work
When changes are made at work, I am clear how they will work out in practice

Figure 6. The full Indicator Tool, revised following piloting. The tool is now freely available for use. The eight items that constitute the shorter, first pass tool are marked with an asterisk.

4.3.1. *Development of first pass tool:* The next step was to develop a shorter, first pass tool from the reliable and valid items identified by the analyses on the larger pool of relevant items. While it would have been feasible to just rely on the seven items that provided the highest loadings in the large Hertfordshire County Council sample, a much stronger case was made for confirming that these were the best items for indicating potential problems, in each stressor domain, in a nationally representative population. Therefore, HSE commissioned modules in two National Omnibus Surveys (nationwide surveys conducted for the UK's Office of National Statistics). These provided a means of identifying potential first items, as well as further validating the Indicator Tool in a very large nationally representative population and will also be used for ascertaining baseline levels for measuring the anticipated population shift towards reducing work-related stress. The finalized first-pass Indicator Tool consists of the eight items marked with an asterisk in Figure 6.

5. Discussion

In this paper we have presented empirical evidence to validate the HSE's draft Management Standards and associated methodology. In the accompanying paper, Mackay *et al.* (2004) described the scientific underpinning for the standards, and here we describe the methods we have used to test the hypothesis that HSE's Stress Management Standards campaign is practical and acceptable in the 'real world', and critically, is also scientifically valid.

In the early stages there was some debate about whether stress management standards should define a *process* or an *outcome*. There is no evidence that simply engaging in a specific process to manage stress, for example, by introducing a 'stress policy' or carrying out a risk assessment in a specific way, will necessarily reduce the risk of harm to health, thus HSE favoured Management Standards for stress as outcome standards. We are now at the point where we can assert that adopting the methodology of the Management Standards will normally mean that an organization is doing enough to comply with Health & Safety law. Further, the organization is likely to benefit from a reduced risk of work-related stress and improvements in the way its work is currently designed. This in turn is likely to have a positive impact on organizational productivity and performance.

The Management Standards have been developed using a robust, bottom-up, qualitative approach that included consultation with as many stakeholders as appeared to be necessary; supporting tools have been developed and validated using quantitative scientific principles. The first draft of the Management Standards was based on documented knowledge to provide a firm foundation for refinement using input from expert stakeholders on fitness-for-purpose. The number of experts' workshops we held was not pre-determined: it was the realization that we were not getting new comments at subsequent workshops, but only similar observations, that enabled us to decide that we probably had enough material with which to revise the draft Management Standards. The 'states to be achieved' were revised by taking on board issues on which there was consensus, as described above.

The status of the target percentages—that is, whether they are an integral part of the Management Standards as compliance statements, or whether they are presented in supporting guidance as an indication of how well the organization is doing—will be subject to the outcomes of a 3-month public *Stress Management Standards Consultation Campaign* conducted over the summer of 2004 through HSE's website (hse.gov.uk/stress) and literature provided to organizations. There are strengths and weaknesses to both positions, as described in the companion paper to the present one (Mackay *et al*., 2004), but critically, both alternatives have the potential to embrace HSE's overarching goal for a

population shift towards reducing work-related stress. Some expert commentators have also voiced concern regarding the threshold of the Management Standards—that is, the percentages associated with each of the Management Standards, in terms of their accuracy as a yardstick for effective stress management. We acknowledge that the 85% and 65% thresholds used in the pilot were essentially based on research that was indicative, rather than grounded. To address this, HSE is committed to attaining accurate baseline figures to support *Securing Health Together* targets from nationwide Omnibus Surveys that include the items of the Indicator Tool; the data from these surveys will also enable us to provide revised thresholds. These will be available for the formal launch of the finalized Management Standards later in 2004. That said, the argument remains that a population shift towards better stress management, and continuous improvement within organizations, is the main aim of the HSE Stress Programme, and this can and should be the aim of each individual organization, regardless of their particular starting point.

Data from the Omnibus Surveys were also used to determine those items that will work best as 'first pass' indicators of stress in a specific area. The 'first pass' screen is a critical gateway to the risk assessment process, and any false negatives—i.e. the organization getting response data that suggests that there is no problem when really there are aspects of stress management that could be improved upon—could be viewed as a critical flaw in the process. There was the potential for this in the pilot, mainly due to inadequacies in the questions being asked; this has now been addressed. On the face of it, the presence of target percentages is pivotal to perceptions of whether the organization has got through the 'first pass' screen. If, however, the outcomes of the first-pass tool are presented as giving an organization the ability to *prioritize* remedial interventions towards continuous improvement, then the potential for not acting because all appears to be well will be removed.

We have mentioned that false negatives were seen in the pilot, but this was actually limited just to the demands domain, and arose because the question being asked was not appropriate. It is worth reiterating, however, that even where this was the case (confirmed by the pilot organizations' data from use of the second pass Indicator Tool), there was still strong support for the two-phase screen approach. The pilot organizations told us that they found it helpful to be able to prioritize, via the use of the screen (the first-pass tool), and also to direct the 'second pass' inquiry towards improving their current situation. In addition, it is completely acceptable for an organization to skip the screen, and go straight in at the second pass stage; some organizations may prefer to have the greater depth of information in the first instance. The risk assessment model presented allows this flexibility.

The three-phase risk assessment approach (as was illustrated in Figure 1) followed from an appraisal of HSE's work to develop an assessment of the risk of fatigue in safety critical work (Cowell, 1998; Lucas, Mackay, Cowell, & Livingstone, 1997), Health Education Board for Scotland's *Work Positive* project (Health Education Board for Scotland, 2002), the conclusions of Rick *et al.* (2001), and stakeholder's calls for a simple but relevant method for assessing stress in the workplace. The procedure of moving from a global, stressor-level screen (i.e. the first-pass Indicator Tool) to more indicative diagnostics (i.e. the second-pass Indicator Tool or equivalent, and employee consultation via focus groups) in order to more clearly define problems towards providing effective, targeted interventions was fully endorsed by those organizations who participated in the formal pilot. Other organizations who have used the Management Standards materials on HSE's website (see www.hse.gov.uk/stress) also feedback that they approve the process.

Human Resources and Trades Unions expert stakeholders have told us that there is a growing acceptance that stress management is an important issue, but that work-related stress is more of a problem in some sectors than others. This implies that interim targets may

be required to maintain a focus on continuous improvement, but alongside this there may be the problem of seeming to condone a situation in which the organization meets the target but some employees clearly report that they are stressed by some aspects of their work. Critically, there has to be a trade-off between what is pragmatically possible, and what is politically acceptable, and HSE's approach has to be to promote the notion of continuous improvement using the best solution following the public consultation campaign.

We are confident that we used a representative sample to pilot the process—in terms of both organization size range and sector range. Experts have queried whether the approach will be practical in small businesses; it is true that none of the piloteer organizations truly fell into that category. Nevertheless, initial research has indicated that the risk assessment approach is still valid, and that in small businesses where the concept of survey anonymity is not feasible, then it is acceptable within the remit of the stress Management Standards to 'start' at the focus group phase. A difficulty is that there is a dearth of research exploring stress management in small businesses. To address this problem HSE is commissioning research that will look at the effectiveness of the Management Standards approach to provide direction for guidance to those managing small businesses.

An important part of the Management Standards is that organizations do not just make an assessment to see if they have a problem with stress in the workplace, but that they also work to eliminate or at least ameliorate the potentials for any identified stressor.

> One of the cardinal sins in the area of occupational health is to conduct elaborate studies, describing in considerable detail the work-related stress of the employees, its causes and consequences—and then leave it at that. To diagnose, but not to treat and even less to prevent, if this is done it adds insult to injury (European Commission, 2000).

To date, only a limited number of studies have monitored the impact of Stress Management Interventions (SMIs). Giga, Noblet, Faragher, & Cooper (2003) undertook a review of extant UK-based SMIs in the scientific literature. They found that the majority (over 80%) were targeted at the individual level, while only 19% adopted strategies to intervene at the organizational level. The former interventions were largely employee assistance programmes (EAPs), or specific stress management techniques such as cognitive-behavioural therapy (CBT); the latter almost exclusively focused on employees involved in job redesign and restructuring. As Giga *et al*. (2003) note, the overall lack of UK-based research on organizational interventions serves to hamper organizations adopting comprehensive stress management programmes.

Parkes and Sparkes (1998) looked more widely at the literature on organizational interventions, but even when including European and US studies, the scope of type of interventions was limited. Six of the nine case studies reviewed by Parkes and Sparkes use participatory action research (PAR), which allows employees to play more active roles in formulating their own interventions, as is endorsed in the Management Standards methodology. Disappointingly, they conclude that 'the case studies outlined ... do not present a convincing picture of the value of organisational interventions' (Parkes & Sparkes, 1998: 43). In response, however, Griffiths (1999), argues that strict attempts to confirm cause-and-effect relationships to endorse the value of interventions are unnatural, and serve to decrease the value of interventions. She proposes that evaluating the effectiveness of interventions in terms of understanding mediating processes is a more (externally) valid approach to understanding work environments, which are essentially open systems not laboratories. There will be unavoidable constraints in many intervention situations, and it is

right to acknowledge these rather than to focus on scientific rigour. Nevertheless, there remains the challenge for those working in the field to consider how best to intervene where there is a clear need for therapeutic action.

Jordan *et al*. (2003) undertook research to look for best practice in stress management, realizing that it is not the norm for organizations to come forward and report what they are doing about problems they have. They advertised for organizations to tell them of their methods of stress management. They found that, in the 19 organizations that completed their study, there were examples of very good practice in stress management, but that no one organization was doing everything right. HSE supports the point that it is still worth supporting and promoting the good practice, even if there remain some weaknesses, for this still moves the organization towards continual improvement, and the nation towards a population shift.

6. Summary

HSE is actively supporting a programme of continuous improvement in stress management in the UK. To assist any organization that wishes to embark on the Management Standards approach to stress management, HSE has developed a free, openly available, risk Indicator Tool. As described above, we have used a protocol to develop and validate a questionnaire that can indicate whether and in what domain there may be stress-related problems in the workplace. With respect to the ability of this tool to relate to targets associated with the Management Standards—both at the level of the organization, and the UK working population—further work is necessary. To carry this forward, HSE is currently using data from a nationwide survry organized by the Office of National Statistics, in order to obtain baseline levels of work-related stress in the general population. Figures will be available from the Omnibus Survey before the launch of the finalized Management Standards (expected to be November 2004). There remains the need for a large longitudinal research study to (a) ascertain how well HSE's Indicator Tool maps onto the 'states to be achieved', and (b) enable interventions to be prioritized.

The Stress Management Standards Consultation Campaign will provide direction for HSE with respect to the target percentages and the levels at which they should be set. The consultation campaign will also provide an opportunity for all UK organizations to contribute to finding solutions that are practicable and effective in their own workplace, and to an overall reduction in work-related stress.

Notes

The revised Management Standards that are the subject of the 2004 public consultation campaign can be viewed at: www.hse.gov.uk/stress.

The background to the development of the standards and associated indicator tool is described in the companion paper by Mackay and colleagues, which is also published in this edition of *Work & Stress*.

The HSE Indicator Tool is freely available to any organization that wishes to use it, and is not protected by copyright.

Responses to the standards can be made through the HSE website at www.hse.gov.uk/stress.

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