

# Management competencies for preventing and reducing stress at work

Identifying and developing the management behaviours necessary to implement the HSE Management Standards: Phase Two

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INVESTORS IN PEOPLE



**RR633**  
Research Report

# Management competencies for preventing and reducing stress at work

Identifying and developing the management behaviours necessary to implement the HSE Management Standards: Phase Two

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This report presents the findings of the second phase of a research project to identify the specific management behaviours associated with the effective management of stress at work. This phase aimed to: examine the usability of the 'Management competencies for preventing and reducing stress at work' framework developed in Phase One; refine and revise the framework; and design a 'Stress management competency indicator tool'. An additional aim was to explore the commonalities between the framework and indicator tool on the one hand and the HSE Management Standards and general management measurement tools on the other.

A qualitative approach was used to explore the usability of both the framework and the indicator tool: this involved interviews with 47 managers and 6 stakeholders working within the five HSE priority areas (Education, Finance, Local Government, Central Government and Healthcare), along with one 'Other sector' organisation, and workshops with 38 stress experts. A combined quantitative and qualitative approach was taken to construct the indicator tool and refine and revise the framework: this involved 152 managers and 656 direct reports. Statistical and qualitative evidence was used to create a revised framework that consists of four competencies and 12 sub-competencies. The final indicator tool contains 66 items. A literature review and mapping exercise was conducted to compare the revised framework and emergent indicator tool with the HSE Management Standards and 12 existing management/leadership frameworks.

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# EXECUTIVE SUMMARY

## Objectives of the study

The objectives of the second phase of this research programme were threefold:

- To **examine the usability, range of uses for and best approaches to using** the management competency framework developed in Phase One. This will be achieved by conducting a quantitative pilot and gathering qualitative evidence from Human Resources/Occupational Health/Health and Safety practitioners, and end users (line managers) on organisational needs and potential uses of the framework.
- To **refine and revise the competency framework** based on evidence from three sources: i) review of qualitative evidence from a pilot exercise, ii) reliability analysis and exploratory factor analysis and iii) literature review. A series of workshops will be conducted with stress management experts (including HR/OH/H&S practitioners, consultants and academics working within the field of stress management) to further refine the framework.
- To **design a stress management competency indicator tool** that measures the degree to which an individual exhibits Management competencies for preventing and reducing stress at work.

## Background

This research represents the second phase of a project aimed at identifying and developing the specific management behaviours associated with the effective management of stress at work. In the first phase of the research, a qualitative, multi-method approach was taken, involving 216 employees, 166 line managers and 54 HR practitioners from the five HSE priority areas (Education, Finance, Local Government, Central Government and Healthcare). The emergent 'Management competencies for preventing and reducing stress at work' framework identified 19 competencies relating to the management of stress in employees.

Following the publication of the 'Management competencies for preventing and reducing stress at work' framework by the HSE (Yarker et al, 2007), and the related guidance leaflets by the CIPD (CIPD, 2007), anecdotal feedback suggests that the framework is already proving useful to practitioners. However, feedback also suggests that there is a need to refine the competency framework. The Phase One research identified 19 competencies that define the behaviours important for preventing and reducing stress at work. It is recognised that, in many situations, it is unrealistic for organisations or individuals to assess and/or develop such a large number of discrete sets of behaviour. In order to have practical value and make the framework more manageable for users, it is necessary to reduce the number of behavioural competencies. To do this in a rigorous way, a quantitative research methodology is needed.

There is also a need to explore in more depth the ways that organisations can use the findings. Since the overall aim of the research programme is to support employers in tackling stress at work, there is a need to ensure that its outputs are in the form most appropriate and useful to the end users, i.e. line managers and HR/Occupational Health/Health and Safety practitioners.

Finally, while the 'Management competencies for preventing and reducing stress at work' framework provides a useful starting point for discussion and reflection, it does not provide line managers or other practitioners with a means of assessing managerial competence in specific areas. For this, a quantitative measurement tool is needed. While a range of



measures of management and leadership exist, the review described in this report highlighted their limitations in terms of measuring the behaviours relevant to the prevention and reduction of stress at work. In particular, it found that the published measures used to link management style to health outcomes predominantly draw from a-priori models of leadership, which may fail to capture the unique set of behaviours specific to the management of well-being, health and stress of employees. Only one of the measures reviewed (SPI, Gilbreath & Benson, 2004) was developed specifically to capture those behaviours required for the management of employee well-being; and this measure has limitations in terms of specificity and geographical context. The review therefore suggests that there is a need to develop a measure/tool that specifically examines the degree to which an individual exhibits the management behaviours emerging from the 'Management competencies for preventing and reducing stress at work' research.

## **Methodology**

A qualitative approach was used to explore the usability of both the competency framework and the 'Stress management competency indicator tool' within organisations. Structured one-to-one interviews were conducted with managers and stakeholders working with the five HSE priority areas (Education, Healthcare, Central Government, Local Government and Finance), along with one organisation from an 'Other' sector; and workshops were conducted with stress experts, comprising independent stress practitioners, Human Resources, Occupational Health and Health and Safety professionals. The sample included 47 managers, 6 stakeholders and 38 stress experts. Interview and workshop data was transcribed and content analysis was used to extract themes.

A combined quantitative and qualitative approach was taken to construct a 'Stress management competency indicator tool', and revise the existing 'Management competencies for preventing and reducing stress at work' framework. Behavioural statements were extracted from the Phase One data (see Yarker et al, 2007) and tested both qualitatively with stakeholders and experts (n = 21) and quantitatively with a snowball sample of employees (n = 292). Following reliability analysis, the revised questionnaire, consisting of 112 items, was used as an upward feedback measure in 22 organisations. Participants included employees directly managed (Direct reports) and managers working within the five HSE priority areas, along with one 'Other' organisation. Managers responded to the questionnaire with their perceptions of their own behaviour, and direct reports responded with their perceptions of their manager's behaviour. The sample included 152 managers and 656 direct reports. Direct report data was analysed using reliability analysis and exploratory factor analysis in order to establish the psychometric properties of the indicator tool and provide information on the factorial structure of the competency framework. Exploratory factor analysis revealed a four factor solution. To further validate this solution, two workshops of stress experts (n =38) explored the framework, named each factor and identified sub-clusters.

The revised 'Management competencies for preventing and reducing stress at work' framework and emergent 'Stress management competency indicator tool' were then compared to the HSE Management Standards to identify commonalities and discrete components related to the effective management of stress at work. A literature review and further mapping exercise were also conducted to compare the revised framework and emergent indicator tool with 12 existing management/leadership frameworks and metrics.

## **Main Findings of the Research**

The main findings of the research are reported in light of the three objectives of the study: the usability study; and the refinement of the competency framework and development of the stress management competency indicator tool. The results of the mapping exercise comparing the refined framework and emergent indicator tool to the HSE Management Standards, and to 12 existing management/leadership frameworks are also reported.

### ***Main findings from the usability study***

The main findings relating to this aim of the research were:

- When stakeholders and workshop participants were asked how they felt the ‘Management competencies for preventing and reducing stress at work’ framework would fit into their existing HR/H&S policies and processes, their responses fell into two themes. Firstly, it was felt the framework could be used in a stress management context; to review and develop policies, to inform the development of action plans for stress management at an organisational level, and to integrate with existing policies. Secondly, it was felt that the framework would be of use in a leadership development/training context: to dovetail into existing frameworks and programmes, to develop new training programmes, or as a guiding structure or checklist for training.
- When stakeholders and workshop participants were asked how they felt the ‘Stress management competency indicator tool’ would fit into their existing HR/H&S policies and processes, both groups saw a dual use for the questionnaire tool. Firstly, it was felt that the tool could be used in a stress management context for providing information at the local level. It was suggested that this would help ‘tie-in’ managers to the process, and be useful in specific scenarios such as where a particular line manager was seeking help with problems that might be stress related. There were requests for the tool to be part of a flexible ‘tool kit’ offered to organisations that would include training materials, case studies, guidance and sample tools. Secondly, the groups saw the tool being useful in a more general management development or appraisal context. In this context, it was suggested the tool would be best used in conjunction with follow up support or coaching, or as part of an overall development programme, rather than as a stand-alone exercise.
- Information was also gathered from managers, providing a user perspective on the ‘Stress management competency indicator tool’ in terms of its ease of use, its relevance to the individual’s role, accuracy of identifying key development areas, and best use of the tool. The findings were very positive:
  - 91% of managers who responded said the tool was ‘easy’ or ‘very easy’ to answer.
  - 76% of managers who responded felt that all the items in the tool were relevant. Of the 21% that felt there were irrelevancies, all referred to a group of items under the competency ‘Friendly style’.
  - 85% of managers who responded felt that there were no gaps or exclusions in the tool. Of the 15% that felt there were, the majority of comments focused on the closed format questionnaire and a wish for additional free-text responses.
  - 82% of managers who responded felt that the tool was accurate in terms of identifying key management development areas.
  - 73% of managers who responded felt that a 360 degree feedback questionnaire would be the best format for the tool. 27% felt that upward feedback would be more preferable. Five of the six stakeholders who responded also felt that 360 degree feedback would be best format.

### ***Main findings from the refinement of the framework and development of the ‘Stress management competency indicator tool’***

- Exploratory Factor Analysis of the direct report data revealed four factors. To further validate this solution, the workshop participants explored the framework, named each factor and identified sub-clusters. The factors were named as:
  - Respectful and responsible: managing emotions and having integrity
  - Managing and communicating existing and future work
  - Reasoning/managing difficult situations
  - Managing the individual within the team
- As a result of the validation exercise with workshop participants, and input from an independent observer, each factor was grouped into three sub-clusters, providing a refined competency framework of four competencies and 12 sub-competencies. Following analysis of the data, and feedback from managers, stakeholders and experts, the final number of questions in the ‘Stress management competency indicator tool’ was 66.

### ***Main findings from mapping the refined framework and indicator tool onto the HSE Management Standards and the general management/leadership measures***

- Mapping the refined ‘Management competencies for preventing and reducing stress at work’ framework onto the HSE Management Standards revealed all of the competencies and sub-competencies could be mapped on the Management Standard areas, but none referred directly to the Management Standard area of ‘Change’. All of the four competencies, and five of the 12 sub-competencies mapped onto more than one Management Standard area. Three of the competencies, and 11 of the 12 sub-competencies could be mapped onto the Management Standard areas of ‘Support’ and ‘Relationships’.
- Mapping the refined ‘Management competencies for preventing and reducing stress at work’ framework onto five transformational leadership frameworks (TLQ Public, TLQ Private, MLQ 5X, GTL and LBS) demonstrated that three of the sub-competencies (‘Managing conflict’, ‘Taking responsibility for resolving issues’ and ‘Sociable’), were not represented by any of the frameworks. Conversely, five of sub-competencies were included in all five transformational leadership frameworks. The two TLQ frameworks mapped most closely onto the refined ‘Management competencies for preventing and reducing stress at work’ framework. Overall, two of the four competencies (‘Respectful and Responsible: Managing emotions and having integrity’, and ‘Managing and communicating existing and future work’) mapped more closely onto a transformational model of leadership than the other two competencies.
- Mapping the refined ‘Management competencies for preventing and reducing stress at work’ framework onto seven other management frameworks demonstrated a more mixed picture. Each of the competencies appeared in at least one of the frameworks, but no framework contained all of the sub-competencies. The closest match to the ‘Management competencies for preventing and reducing stress at work’ was the Supervisor Practices Instrument, with only one sub-competency (‘Use of organisational resources’) not being represented. Interesting this was the only framework developed with the intention of measuring behaviours that impact on employee well-being. Overall, the competency ‘Reasoning/managing difficult situations’ was the least well represented across all the management frameworks.

## **Implications of the Research**

### ***Policy makers***

The research provides a further vehicle for encouraging employers to tackle stress in the workplace and implement the Management Standards, together with mechanisms to help them do so. Effective promulgation of the findings will be needed in order to ensure that the benefits of the research are fully realised. By clarifying the behaviours needed to manage stress, the refined framework and indicator tool allow the development of interventions to ensure managers can manage employee stress effectively. Such interventions are seen to be useful not just in terms of stress management, but also for integration into management and leadership development processes and other areas. However, there remains a need for the HSE to offer more guidance, in terms of a flexible tool kit, providing training materials, case studies, guidance and sample tools. Longitudinal case studies of different approaches to integrate the research findings into organisations' existing culture and practice will be required to ensure that HSE guidance provides appropriate support for employers.

In addition, the research has links with, and therefore provides a potential platform for integration across, a range of UK Governmental initiatives. It could be a vehicle for 'joined up thinking' at Governmental and national levels, by integrating the Health, Work and Well-being, Skills, Health and Safety, and Business agendas. This would be particularly true if effective interventions could be developed to improve employee well-being by improving manager skills/behaviour.

### ***Research***

In order to enable the development of a sound psychometric measure, the next step is to test the criterion-related validity, and further assess the construct validity of the refined 'Management competencies for preventing and reducing stress at work' and the 'Stress management competency indicator tool'. Research should also be conducted to design and test interventions that develop managers' management competence in the prevention and reduction of stress. There is also a need to capture data on organisations integrating the framework and the tool into their existing processes, in order to develop longitudinal case studies.

### ***Employers (Health and Safety, Occupational Health and Human Resource Professionals)***

Feedback suggests that organisations can use and already are using the 'Management competencies for preventing and reducing stress at work' framework, both at the individual level, enabling managers to access specific and clear guidance about behaviours they should be displaying, and at a group/organisational level, guiding the design of training programmes and interventions. In addition, the vast proportion of managers who used the 'Stress management competency indicator tool' found it 'easy' or 'very easy' to answer, relevant to their roles, and accurate in terms of identifying key management development areas.

The 'Management competencies for preventing and reducing stress at work' framework and the 'Stress management competency indicator tool' can be used both to embed stress management into people management, and to complement other stress management activities. This dual use of the framework and the tool came out very strongly from the research, moving the utility of this research firmly beyond stress to broader aspects of good management and healthy organisational cultures. With regards to the use of the framework and tool within people management processes, the usability study suggests that the framework and the tool would be best utilised in a performance management/development context rather than in a

selection context. With regards to the use of the framework and tool within stress management processes, the usability study suggests that the framework be used to review and update existing policies and to aid in the development of action plans following audits of workplace stressors. The tool was felt to be useful as an individual diagnostic, enabling organisational stress management to be focused locally at the individual manager, and/or to provide a mechanism for tackling specific situations or scenarios and was welcomed as a way to engage the manager in the process of stress management. The overriding benefit of both deliverables will be to enable employers to support managers better.

### ***Line Managers***

The key messages to line managers are: that stress management is a part of normal general management activities; and that there is no single behaviour needed for effective stress management, so managers need to think about using a complementary set of behaviours. Through providing managers with a clear specification of the relevant behaviours and a means to assess whether those behaviours are already part of their repertoire, the research can support managers in behaving in ways that prevent and reduce stress for their staff. The development of the 'Stress management competency indicator tool' opens the possibility of assessing the relevant behaviours through self-assessment, upward feedback or 360 degree feedback. For managers who are involved in other stress management activities, the framework and the tool can provide a useful starting point from which to approach solutions.

# 1 INTRODUCTION

## 1.1 BACKGROUND TO THE RESEARCH: SUMMARY OF FINDINGS FROM PHASE ONE OF THE RESEARCH

The research programme on ‘Management competencies for preventing and reducing stress at work’ aims to support the Health and Safety Executive (HSE) Management Standards and programme of activity to support employers in reducing work-related stress. It was recognised that, while the HSE’s activity is driven from Health & Safety, much of the responsibility for its implementation will fall on human resources (HR) professionals and line managers. This necessitates that HR professionals and managers understand the skills, abilities and behaviours managers need to implement the Management Standards and manage their staff in a way that minimises work-related stress. It also means that the implementation of the Management Standards needs to be aligned with other organisational and national initiatives relating to people management.

The ‘Management competencies for preventing and reducing stress at work’ project set out to meet this need by enhancing understanding of the skills abilities and behaviours required by managers, thereby providing a platform for integration of stress management with people management. Phase One of the project aimed: to identify the specific management behaviours that are associated with the effective management of stress at work, including identifying specific behaviours associated with each of the six Management Standards and behaviours associated with the implementation of the HSE Management Standards; to build a ‘competency framework for preventing and reducing stress at work’; and to explore the possible integration of this framework into existing management competency frameworks. This first phase of the research was published in March 2007 (Yarker, Donaldson-Feilder, Lewis & Flaxman, 2007).

A review of the literature conducted during Phase One of the research found that manager behaviour is an important determinant of employee stress levels. It also revealed an increasing research interest in managers’ impact on employee well-being. Whilst numerous management behaviours have been empirically linked to employee well-being and the reduction of strain, particularly those that involve individualised consideration and/or interpersonally fair treatment, a definitive list of the management behaviours specific to the management of stress/well-being in employees had not previously been developed.

A competency approach was adopted to define the collection of skills and behaviours required by an individual manager to prevent and reduce stress in their staff. The benefits and opportunities afforded by using a competency framework for stress management are three fold: it puts stress management into a language or format that is accessible and ‘business-friendly’; it allows a clear specification of the expectations upon managers to manage stress in others; and, importantly, it allows for the development of interventions to ensure managers have the appropriate skills, abilities and behaviours to manage employee stress effectively and to implement the HSE Management Standards.

A qualitative approach was used to elicit the behaviours associated with management of stress in employees. Participants included 216 employees, 166 line managers and 54 HR practitioners working within the five HSE priority sectors: Education, Healthcare, Central Government, Local Government and Finance. Data gathering included: structured one-to-one interviews incorporating the critical incident technique; workshops; and written exercises. The interviews suitable for analysis (209 employees and 160 managers) were transcribed and content analysis was used to extract themes and develop a coding framework. Following

completion of content analysis, an emergent competency framework was developed. Behavioural indicators were also generated from written exercises completed by managers and employees and workshop exercises completed by HR professionals. Content analysis was used to fit this latter data into the existing framework to provide triangulation of the findings and a preliminary validation of the emerging framework. Analysis of the data revealed 19 Management competencies for preventing and reducing stress at work. For all except one of these competencies ('Seeking Advice') the data provided both positive and negative behavioural indicators.

Frequency analysis was used to explore the proportion of participants who had mentioned particular competencies in the interviews and the percentage frequency of mentions. Separate analyses were conducted to identify manager and employee differences and sector differences. The set of competencies was found to be consistent across the sample: the same competencies were referred to by managers and employees, and by interviewees from all five sectors covered.

The emergent 'Management competencies for preventing and reducing stress at work' framework was compared to the HSE Management Standards to identify commonalities and discrete components related to the effective management of stress at work. This revealed that 15 of the 19 competencies appear to be particularly relevant for the six Management Standard areas. Three further mapping exercises were conducted to compare the emergent framework with: a) existing management frameworks; b) sector specific frameworks; and c) national frameworks. This analysis suggested that, while all of the 19 competencies were covered by one or more of the existing frameworks, no single framework (management, sector or national) included all 19 of the competencies identified as pertinent to preventing and reducing stress in staff.

Table 1.0 shows the 'Management competencies for preventing and reducing stress at work' framework with positive and negative behavioural indicators. For further information, please refer to the Phase One research report (Yarker et al., 2007).

**Table 1.0** 'Management competencies for preventing and reducing stress at work' framework with positive and negative behavioural indicators

<i>Competency</i>	<i>Positive examples of Manager Behaviour</i>	<i>Negative examples of Manager Behaviour</i>
Managing workload and resources	<ul style="list-style-type: none"> <li>• Bringing in additional resource to handle workload</li> <li>• Aware of team members ability when allocating tasks</li> <li>• <input type="checkbox"/> Monitoring team workload</li> <li>• Refusing to take on additional work when team is under pressure</li> <li>• <input type="checkbox"/> Following through problems on behalf of employees</li> </ul>	<ul style="list-style-type: none"> <li>• <input type="checkbox"/> Delegating work unequally across the team</li> <li>• <input type="checkbox"/> Creating unrealistic deadlines</li> <li>• <input type="checkbox"/> Showing lack of awareness of how much pressure team are under</li> <li>• <input type="checkbox"/> Asking for tasks without checking workload first</li> </ul>
Dealing with work problems	<ul style="list-style-type: none"> <li>• <input type="checkbox"/> Developing action plans</li> <li>• <input type="checkbox"/> Breaking problems down into manageable parts</li> <li>• <input type="checkbox"/> Dealing rationally with problems</li> <li>• <input type="checkbox"/> Reviewing processes to see if work can be improved</li> </ul>	<ul style="list-style-type: none"> <li>• Listening but not resolving problems</li> <li>• <input type="checkbox"/> Being indecisive about a decisions</li> <li>• <input type="checkbox"/> Not taking issues and problems seriously</li> <li>• <input type="checkbox"/> Assuming problems with sort themselves out</li> </ul>
Process Planning and Organisation	<ul style="list-style-type: none"> <li>• Asking themselves 'could this be done better?'</li> <li>• <input type="checkbox"/> Prioritising future workloads</li> <li>• <input type="checkbox"/> Working proactively rather than reactively</li> </ul>	<ul style="list-style-type: none"> <li>• Not using consistent processes</li> <li>• <input type="checkbox"/> Sticking too rigidly to rules and procedures</li> <li>• Panicking about deadlines rather than planning</li> </ul>

**Table 1.0** ‘Management competencies for preventing and reducing stress at work’ framework with positive and negative behavioural indicators (continued)

<i>Competency</i>	<i>Positive examples of Manager Behaviour</i>	<i>Negative examples of Manager Behaviour</i>
Empowerment	<ul style="list-style-type: none"> <li>☐ Trusting employees to do their work</li> <li>☐ Giving employees responsibility</li> <li>• Steering employees in a direction rather than imposing direction</li> </ul>	<ul style="list-style-type: none"> <li>☐ Managing ‘under a microscope’</li> <li>☐ Extending so much authority employees feel a lack of direction</li> <li>• Imposing a culture of ‘my way is the only way’</li> </ul>
Participative approach	<ul style="list-style-type: none"> <li>☐ Provides opportunity to air views</li> <li>• Provides regular team meetings</li> <li>☐ Prepared to listen to what employees have to say</li> <li>☐ Knows when to consult employees and when to make a decision</li> </ul>	<ul style="list-style-type: none"> <li>☐ Not listening when employee asks for help</li> <li>☐ Presenting a final solution rather than options</li> <li>☐ Making decisions without consultation</li> </ul>
Development	<ul style="list-style-type: none"> <li>☐ Encourages staff to go on training courses</li> <li>☐ Provides mentoring and coaching</li> <li>☐ Regularly reviews development</li> <li>• Helps employees to develop within the role</li> </ul>	<ul style="list-style-type: none"> <li>☐ Refuses requests for training</li> <li>☐ Not providing upward mobility in the job</li> <li>☐ Not allowing employees to use their new training</li> </ul>
Accessible/ Visible	<ul style="list-style-type: none"> <li>☐ Communicating that employees can talk to them at any time</li> <li>☐ Having an open door policy</li> <li>• Making time to talk to employees at their desks</li> </ul>	<ul style="list-style-type: none"> <li>☐ Being constantly at meetings/away from desk</li> <li>☐ Saying ‘don’t bother me now’</li> <li>☐ Not attending lunches or social events with employees</li> </ul>
Health and Safety	<ul style="list-style-type: none"> <li>☐ Making sure everyone is safe</li> <li>• Structuring risk assessments</li> <li>• Ensuring all Health and Safety requirements are met</li> </ul>	<ul style="list-style-type: none"> <li>☐ Not taking Health and Safety seriously</li> <li>☐ Questioning the capability of an employee who has raised a safety issue</li> </ul>
Feedback	<ul style="list-style-type: none"> <li>☐ Praising good work</li> <li>☐ Acknowledging employees efforts</li> <li>☐ Operating a no blame culture</li> <li>• Passing positive feedback about the team to senior management</li> </ul>	<ul style="list-style-type: none"> <li>☐ Not giving credit for hitting deadlines</li> <li>☐ Seeing feedback as only ‘one way’</li> <li>☐ Giving feedback employees are wrong just because their way of working is different</li> </ul>
Managing Conflict	<ul style="list-style-type: none"> <li>☐ Listening objectively to both sides of the conflict</li> <li>☐ Supporting and investigating incidents of abuse</li> <li>☐ Dealing with conflict head on</li> <li>• Following up on conflicts after resolution</li> </ul>	<ul style="list-style-type: none"> <li>☐ Not addressing bullying</li> <li>☐ Trying to keep the peace rather than sort out problems</li> <li>☐ Taking sides</li> <li>☐ Not taking employee complaints seriously</li> </ul>
Expressing and managing own emotions	<ul style="list-style-type: none"> <li>☐ Having a positive approach</li> <li>☐ Acting calmly when under pressure</li> <li>☐ Walking away when feeling unable to control emotion</li> <li>☐ Apologising for poor behaviour</li> <li>☐ Keeps employee issues private and confidential</li> </ul>	<ul style="list-style-type: none"> <li>☐ Passing on stress to employees</li> <li>☐ Acting aggressively</li> <li>☐ Losing temper with employees</li> <li>☐ Being unpredictable in mood</li> </ul>
Acting with Integrity	<ul style="list-style-type: none"> <li>• Admits mistakes</li> <li>• Treats all employees with same importance</li> </ul>	<ul style="list-style-type: none"> <li>☐ Speaks about employees behind their backs</li> <li>☐ Makes promises, then doesn’t deliver</li> <li>☐ Makes personal issues public</li> </ul>
Friendly Style	<ul style="list-style-type: none"> <li>☐ Willing to have a laugh and a joke</li> <li>☐ Socialises with team</li> <li>☐ Brings in food and drinks for team</li> <li>• Regularly has informal chats with employees</li> </ul>	<ul style="list-style-type: none"> <li>☐ Criticises people in front of colleagues</li> <li>☐ Pulls team up for talking/laughing during working hours</li> <li>☐ Uses harsh tone of voice when asking for things</li> </ul>



**Table 1.0** ‘Management competencies for preventing and reducing stress at work’ framework with positive and negative behavioural indicators (continued)

<i>Competency</i>	<i>Positive examples of Manager Behaviour</i>	<i>Negative examples of Manager Behaviour</i>
Communication	<ul style="list-style-type: none"> <li>•☐ Keeps team informed what is happening in the organisation</li> <li>• Communicates clear goals and objectives</li> <li>• Explains exactly what is required</li> <li>• ‘Leading from the front’</li> <li>• Steps in to help out when needed</li> </ul>	<ul style="list-style-type: none"> <li>•☐ Keeps people in the dark</li> <li>•☐ Holds meetings ‘behind closed doors’</li> <li>•☐ Doesn’t provide timely communication on organisational change</li> </ul>
Taking Responsibility	<ul style="list-style-type: none"> <li>• Communicating ‘the buck stops with me’</li> <li>• Deals with difficult customers on behalf of employees</li> <li>• Able to put themselves in employees’ shoes</li> </ul>	<ul style="list-style-type: none"> <li>•☐ Saying ‘its not my problem’</li> <li>•☐ Blaming the team if things go wrong</li> <li>•☐ Walking away from problems</li> </ul>
Knowledge of Job	<ul style="list-style-type: none"> <li>• Has enough expertise to give good advice</li> <li>• Knows what employees are doing</li> <li>• Takes an interest in employee’s personal lives</li> </ul>	<ul style="list-style-type: none"> <li>•☐ Doesn’t have the necessary knowledge to do the job</li> <li>•☐ Doesn’t take time to learn about the employee’s job</li> </ul>
Empathy	<ul style="list-style-type: none"> <li>• Aware of different personalities and styles of working within the team</li> <li>• Notices when a team member is behaving out of character</li> <li>• Seeks help from occupational health when necessary</li> </ul>	<ul style="list-style-type: none"> <li>•☐ Insensitive to people’s personal issues</li> <li>•☐ Refuses to believe someone is becoming stressed</li> <li>•☐ Maintains a distance from employees ‘us and them’</li> </ul>
Seeking Advice	<ul style="list-style-type: none"> <li>•☐ Seeks advice from other managers with more experience</li> <li>• Uses HR when dealing with a problem</li> </ul>	<ul style="list-style-type: none"> <li>•☐ n/a</li> </ul>

## 1.2 LITERATURE RELATING TO THE LINK BETWEEN MANAGEMENT BEHAVIOUR AND WORKPLACE STRESS

### 1.2.1 Summary of literature reviewed in Phase One

An extensive literature review was conducted for Phase One of this research programme. The current section summarises the findings of that review (see Yarker et al. (2007) for the full review).

The original review was organised into five main sections to reflect different theoretical models and methods:

1. The impact of *task-* and *relationship-*focused leader behaviours, which have typically been assessed by the initiating structure (task-focused) and consideration (relationship-focused) scales of the Leader Behaviour Description Questionnaire (LBDQ; Stogdill, 1963).
2. The impact of *transformational* and *transactional* leader behaviours, which have been measured by, for example, the Multifactor Leadership Questionnaire (MLQ; Bass & Avolio, 1997) and the Transformational Leadership Questionnaire (TLQ; Alimo-Metcalfe & Alban-Metcalfe, 2001).
3. The impact of *leader-member exchange* (or LMX), which focuses on the quality of the supervisor-direct report dyadic relationship.

4. The impact *other supervisory behaviours* that have been associated with employee strain; various scales have been developed and used in this fourth group of studies.
5. The impact of *supervisor-focused training programmes* that have been designed to reduce employee strain.

In addition, the review provided information on the impact of supervisory behaviour on employees' physical health, the behaviours underpinning supervisory support and the impact of bullying supervisor behaviour. These areas are also summarised briefly below.

### ***Task- and relationship- focused behaviour***

Research by Selzer and Numerof (1988), and Sheridan and Vredenburg (1978) suggests that relationship-focused supervisory behaviours have a positive impact on employee well-being, but that the impact of leaders' initiating structure on employees' health appears to be more complex: high levels of task-focused supervisory behaviour can have a *detrimental* impact on employee well-being, but this negative impact may be reduced if the same supervisors also exhibit a range of more relationship-focused behaviours.

### ***Transformational and transactional leader behaviour***

Two studies, firstly that of Sosik and Godshalk, 2000, looking at the impact of mentor transformational behaviour on protégé stress; and secondly that of Alimo-Metcalfe and Alban-Metcalfe (2001) looking at the relationship between manager upward feedback ratings and perceptions of effective stress management, lend credence to the view that transformational leader behaviours - and particularly those that involve some form of individualised consideration - can have a significant and positive impact on employees' psychological well-being.

### ***Leader-member exchange (LMX)***

In two separate studies, Epitropaki and Martin (1999; 2005) found significant associations between better quality LMX relationships and higher levels of employee psychological well-being. High quality LMX has also been found to 'buffer' the effect of negative work environments on work and health outcomes (e.g. Harris and Kacmar, 2005, & Van Dyne et al., 2002). In addition, Scandura and Graen (1984) designed an LMX intervention which was found to be effective in increasing both productivity and employee satisfaction.

### ***Other supervisory behaviours***

While acknowledging the importance of the above research, Yarker et al. (2007) noted that some occupational stress authors highlighted the limitations of simply adopting prominent leadership theories and measures (e.g., Gilbreath, 2004; Gilbreath & Benson, 2004; Nyberg et al., 2005; Offermann & Hellmann, 1996). These authors have, instead, developed and/or employed other specific supervisor behaviour scales that perhaps more clearly reflect the wider research into work design and occupational health.

- Offermann and Hellmann (1996) examined the relationships between management behaviours and employee strain using the Survey of Management Practices (Wilson & Wilson, 1991) questionnaire. Their analyses revealed that higher levels of delegation and communication, higher levels of emotional support behaviours, and lower levels of leader control, predicted lower levels of employee strain.

- Gilbreath and Benson (2004) developed the Supervisor Practices Instrument (SPI) with the aim of assessing the extent to which supervisor behaviour would predict employees' psychological well-being, after controlling for a range of other important variables, including employee demographics, health behaviours, support from others (i.e., non-managers) at work, stressful life events, and (non-specified) stressful work events. Using the developed scale, supervisory behaviours were found to be significantly related to employees' mental health, even after accounting for the effects of the other non-supervisory variables.
- The results of a study by van Dierendonck, et al. (2004) suggest that leadership behaviour and employee mental well-being are linked in a 'feedback loop'. This highlights not only the important role of supervisory behaviour in enhancing employees' well-being; but also the impact of employee well-being in determining the nature of their relationship with their supervisors.
- O'Driscoll and Beehr (1994) found that a reduction in role ambiguity, in particular, may have mediated (or served as the mechanism for) the relationship between supervisory behaviour and employee strain. Thus, when supervisors were perceived to initiate structure, communicate effectively and set goals, their employees experienced less ambiguity, and hence lower levels of psychological strain.

### ***Supervisor-focused interventions***

While virtually all of the studies summarised above have implications for intervention, we found only a small amount of research that actually investigated the impact of a supervisor-focused training programmes on employees' well-being. Four reviewed studies (Theorell et al., 2001; Tsutsumi et al., 2005; Kawakami et al., 2005; & Greenberg, 2006), demonstrated strong evidence that supervisor-focused interventions can have a beneficial effect on both work design characteristics (e.g., job control and workplace support) and employees' well-being. Such interventions also appear to have the potential to reduce the detrimental impact of potent organisational stressors (such as workplace injustice and inequity).

### ***Impact of supervisory behaviour on employees' physical health***

There is also evidence that supervisor behaviour can have an impact on important psychophysiological outcomes. For example, Wager, Fieldman, & Hussey (2003) found that employees who worked under two differently perceived supervisors in the same workplace on separate working days (where one supervisor was perceived as having a significantly more favourable supervisory interactional style than the other) showed significantly higher systolic and diastolic blood pressure on the days that they worked under the unfavourably perceived supervisor, compared to the days working under the favourably perceived supervisor. This study is also consistent with previous research that has identified links between problematic characteristics of work and an increased risk of cardiovascular disease (e.g., Bosma et al., 1998; Theorell & Karasek, 1996). Interestingly, this study also indicated that working under a *favourably* perceived supervisor was associated with lower blood pressure readings than those observed in the home environment on non-work days, suggesting that some supervisors may help to promote one's physiological health.

### ***Behaviours underpinning supervisory support***

Social support has been one of the most frequently researched variables in the occupational stress literature. Although most research in this area indicates that support from various sources (e.g., peer and supervisor) is helpful in reducing employee strain (e.g., Cohen & Wills, 1985; Dorman & Zapf, 1999; Fenalson & Beehr, 1994; Ganster, Fusilier, & Mayes, 1986; LaRocco & Jones, 1978), it has generally employed fairly global measures. Two studies however were reviewed that highlighted more specific activities or behaviours constituting supervisory support. Fenalson and Beehr (1994) assessed the relations between the frequency of three distinct forms of potentially supportive supervisory communication (positive, negative, and non-job), the more traditional global measures of supervisory support, and employee strain. Positive job-related supervisory communication was found to be the most beneficial in reducing employee strain, followed by non-job related communication. Interestingly, higher levels of negative job-related communication were associated with *increased* employee strain (which implies that continually talking about problematic aspects of work does not constitute an active component of supervisory support); and the specific contents of supervisory communications explained more of the variance in employee strain than the traditional global measures of supervisory support. Stephens and Long (2000) found that a greater frequency of non-job and positive job-related supervisory communication was related to lower psychological and physical strain.

### ***Impact of bullying supervisory behaviours***

The concept of workplace bullying has, perhaps not surprisingly, received a fair amount of attention in the occupational stress literature (e.g., Hoel et al., 1999; Kivimaki et al., 2003; Quine, 1999; Rayner & Hoel, 1997). While bullying is sometimes perpetrated by peers of the targeted employee, it is more common for the perpetrator to be a supervisor or manager of the target (e.g., Einarsen, 2000; O'Connell & Korabik, 2000; Quine, 1999). A comprehensive review of the bullying literature conducted on behalf of the HSE by Beswick, Gore, and Palferman (2006) demonstrates that numerous studies have found significant associations between experiences of bullying and psychological strain (e.g., depression, anxiety, suicidal thoughts, post-traumatic stress; low self-esteem); physical strain (e.g., chronic fatigue, sleep difficulties, and stomach problems); and sickness absence. They also report that organisational antecedents of bullying may include a change of supervisor, autocratic management style, role conflict, and low job control. A review by Rayner and McIvor (2006) highlighted the need to consider positive management behaviours in the 'bullying behaviour' model rather than focus solely on negative behavioural indicators identified by Beswick et al. (2006).

#### **1.2.2 Recent research findings**

This section provides a review of papers published in 2007 that focused on the link between manager behaviour and employee well-being. Although structured around the same five areas as described in section 1.2.1, papers found were only relevant to three of them, namely 'Transformational and Transactional Leader Behaviour', 'Leader-member Exchange', and 'Other supervisory behaviour indices'. Since an exhaustive literature review is outside of the scope of this research, this section represents a snapshot of recent research publications.

### ***Transformational and transactional leader behaviour***

The majority of papers that have been published since the review conducted in Yarker et al. (2007) have focused on the link between transformational, transactional and/or laissez-faire leader behaviours and employee well-being. Hetland, Scandal & Johnsen (2007) examined the relationship between perceived leadership style and employee burnout. Results indicated that having a supervisor who showed transformational leadership was related to lower cynicism and higher professional efficacy in employees. Further, passive avoidant leadership styles were found to be related to higher exhaustion and cynicism in employees. Interestingly, transactional leadership was not linked to any of the elements of burnout, leading the authors to conclude that negative leadership behaviours are more important for burnout than perception of positive leadership styles.

Bono, Foldes, Vinson & Muros (2007) investigated the impact of leader behaviour on employee moods and emotions. It was found employees with transformational leaders experienced more optimism, happiness and enthusiasm in the day that those with leaders who didn't display transformational leadership behaviour. Arnold, Turner, Barling, Kelloway & McKee (2007) reported results from two studies which revealed that the meaning that individuals ascribe to their work mediates the relationship between transformational leadership and positive well-being. This suggests that being managed by someone who shows transformational leadership behaviour may increase perceptions of meaningfulness of work, which in turn has a positive impact on psychological well-being. This research adds to the range of positive mental health effects found to be associated with a transformational leadership style and takes an important step towards examining the potential mechanisms or mediators through which leadership style impacts on employee well-being.

Two studies link laissez-faire leadership and supervisory bullying behaviours. A study by Skogstad, Einarsen, Torsheim, Aasland & Hetland (2007) found that laissez faire leadership was positively correlated with role conflict and role ambiguity in employees, and was also related to increased numbers of employee conflicts. Further, through path modelling it was found that laissez-faire leadership was directly associated with employees' experience of bullying. In a related study, Hauge, Skogstad, & Einarsen (2007) also found the link between laissez-faire leadership and bullying and that, where immediate supervisors avoided intervening in and managing the stressful situation, bullying was more likely to occur.

### ***Leader-member exchange (LMX)***

A recent article (Hooper & Martin, 2008) has extended previous research in the relationship between LMX and employee outcomes, by focusing on LMX variability. LMX variability is the extent to which LMX relationships are perceived to vary within a team. Perceptions of high variability were found to be negatively related to both employee job satisfaction and well-being, over and above the effects of LMX. Further, this relationship was found to be mediated by relational team conflict.

### ***Other supervisory behaviours***

Dellve, Skagert, & Vilhelmsson (2007) conducted a longitudinal study, investigating the relationship between leadership strategies, workplace health promotion (WHP), and employees' long-term work attendance. Leaders use of rewards, recognition and respect behaviours, was associated with higher work attendance by employees. Interestingly, a higher work attendance was also found in units whose leaders viewed the organisation (rather than individual) as responsible for the high rate of sick leave.

Schaubroeck, Walumbra, Ganster & Kepes (2007) explored the impact of hostile supervisor behaviour on employee outcomes. In this context, the characteristic behaviours associated with a hostile leader were laying blame on others, providing negative feedback, a proclivity to argue and a low frustration threshold (Tepper, 2000). This study found a negative relationship between supervisor hostility and employee well-being (anxiety, depression and somatic complaints). This relationship was found to be moderated by job enrichment, such that the impact of supervisor hostility on well-being was reduced if the employee has an enriched job (defined as job scope).

### 1.3 THEORIES OF MANAGEMENT AND LEADERSHIP

As a prelude to exploring existing measures of leadership and management (in section 1.4), the following provides a brief introduction to the theories of leadership and management most commonly referred to in the literature. Please note that this is not an exhaustive review, as the leadership and management literature is far-reaching and beyond the scope of this report. Rather, here we have included those theories which are most frequently referred to in the literature and particularly those used in health and well-being research.

Three of the most commonly used theories, namely transformational and transactional leadership model (referred to as new paradigm theories), behaviour theories (represented by task and relationship based behaviour) and Leader Member Exchange theory have already been focused on in Yarker et al. (2007) and in the literature review above. This is because they have, to a greater or lesser extent, received research attention in terms of their impact on employee health and well-being. Along with these three theories, two further theories of leadership have also been pervasive in the literature: situational models of leadership; and the personality or 'great man' approach to leadership. Since the personality approach to leadership is about traits (focused on what the leader is) rather than behaviours (focused on what the leader does), it is not expanded upon within this review. However, three more recent perspectives on leadership are mentioned: Ethical Leadership, Authentic Leadership and Trust in Management.

#### ***Behavioural approach (Task- and relationship- focused behaviour)***

The distinction between *task-* and *relationship-*focused leader behaviour has been evident in the leadership literature for over half a century (e.g., Nyberg et al., 2005; Sosik & Godshalk, 2000; Yukl, 1994). Task-oriented (or *initiating structure*) behaviour refers to those managerial actions that are primarily focused on achieving the goals of a task, such as: planning and organising; assigning people to tasks; communicating information; monitoring performance; defining and solving work-related problems; and clarifying roles and objectives. In contrast, relationship-focused (or *consideration*) leader behaviour includes: supporting employees; showing respect for employees' ideas; increasing cohesiveness; developing and mentoring; looking out for employees' welfare; managing conflict; and team building (e.g., Arnold, 1995; Levy, 2003; Nyberg et al., 2005; Seltzer & Numerof, 1988; Sosik & Godshalk, 2000).

### ***Transformational and transactional leader behaviour***

More recently, the concepts of *transformational* and *transactional* leadership have become the most widely endorsed paradigm for research into leader behaviour (e.g., Bass 1999; Bass & Avolio, 1994; Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996). According to this influential model, most leader behaviour falls into three broad categories: transformational, transactional, and laissez faire. Transformational leadership behaviour is viewed as particularly effective, because it involves generating enthusiasm for a 'vision', a high level of individualised consideration, creating opportunities for employees' development, setting high expectations for performance, and acting as a role model to gain the respect, admiration, and trust of employees (e.g., Bass, 1999; Bass & Avolio, 1994; Rubin et al., 2005). Transactional leadership, on the other hand, involves a more straightforward exchange between a leader and direct report, whereby the employee is suitably rewarded for good performance (also commonly referred to as contingent reward behaviour). Thus, leaders who are more transactional than transformational are likely to explain to employees what is expected of them, and the likely outcomes of meeting those expectations, without necessarily emphasising how they can personally develop and grow within the role and organisation (Levy, 2003). Laissez faire (or non-transactional) leader behaviour is viewed as the least effective, as it is characterised by an avoidance of action, a lack of feedback and communication, and a general indifference to employee performance (Sosik & Godshalk, 2000).

### ***Leader-member exchange (LMX)***

Leader-member exchange, or LMX, can be distinguished from other leadership approaches by its specific focus on the quality of the dyadic relationship between an employee and his or her direct supervisor (Gerstner & Day, 1997; Graen & Uhl-Bien, 1995). At the heart of LMX lies the notion that line managers tend to develop close relationships with only a subgroup of direct reports, and engage in higher quality exchanges with that subgroup of individuals than with other members of the team. These quality exchange relationships may manifest in greater levels of mutual trust, respect, liking, support, and reciprocal influence (e.g., Graen & Uhl-Bien, 1995; Harris & Kacmar, 2005; Liden et al., 1993).

### ***Situational Approach***

The essence of the situational approach (sometimes called contingency approach) is that different situations need different kinds of leadership and that effective leaders are those that are sensitive to employee needs, adapting their behaviour to the demands of different situations. An example of a situational approach is path-goal theory, developed by House & Mitchell (1974). Path goal theory sees the leader's role as creating and managing employees paths towards both individual and group goals and clarity of expectations. This identified four leadership styles, directive, supportive, participative and achievement-oriented. The model proposes that a leader can be trained to use different types of behaviours to fit different situations. A further example of a situational model, which bears its origins in behavioural models is Hersey's Situational Leadership Model, which is grounded in the idea that leaders differ in the amount of Task (giving direction) and Relationship (giving socio-emotional support) behaviour they display at any particular moment. Such differences are viewed as a response to the level of employees' displayed 'readiness' to perform a task. The theory posits that, as a follower's level of readiness to complete a task increases, leaders simultaneously begin to reduce task behaviour and increase relationship behaviour. The model thus promotes the use of combining directive and supportive leadership behaviours.

## ***Ethical Leadership***

Ethical leadership is defined as “the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making” (Brown, Treviño, & Harrison 2005). An ethical dimension of leadership is embedded within transformational leadership theory. Specifically, ethical leadership is related to considerate behaviour, honesty and trust in the leader and has been found to be positively related to consideration, honesty, trust, interactional justice and idealized influence (Brown et. al 2005).

## ***Authentic Leadership***

Authentic leadership theory is still in the early stage of development: however it has had increased attention in recent years. In a special paper which focused exclusively on authentic leadership theory, Avolio & Gardner (2005) outline some key attributes of authentic leaders. The authors stipulate that authentic leaders are true to themselves as they are motivated by personal convictions rather than success or status. They own their thoughts, feelings and actions and, whilst fully aware of cognitive biases, are able to consider multiple perspectives and assess information in a balanced and appropriate manner. Through increased self-awareness, regulation and positive modelling, authentic leaders foster authenticity in their followers, which in turn leads to increased well-being and productivity.

## ***Trust in Management***

Trust in management is an underlying theme within many leadership theories. Surprisingly, however, it is only recently that this concept has begun to be examined in its own right. Whitener, Brodt, Korsgaard & Werner (1998) identified five categories of managerial behaviour that affects employees’ trust. These are: behavioural consistency, acting with integrity, sharing and delegation of control, openness of communication and, demonstration of concern. To date, however, there appears to be no universal measure of trust in one’s manager. Dirks & Ferrin (2002) highlight that this could be a result of a number of different operational definitions influencing the range of techniques used to measure the construct stretching from critical interview techniques to self report measures.

## **1.4 MEASURES OF MANAGEMENT AND LEADERSHIP**

### **1.4.1 What makes a psychometrically sound measure?**

In order to evaluate the tools and measures presented in section 1.4.2, the following provides a brief overview of the steps required to develop a good, psychometrically sound measure. Rust and Golombok (1999) suggest that the following steps should be undertaken in order to develop a sound psychometric measure:

1. Clear measure requirements and theoretical framework
2. Item generation
3. Item analysis
4. Assessment of reliability
5. Assessment of validity
6. Revisions and completion of measure



### ***Clear measure requirements and theoretical framework***

This is the most crucial stage of the development of the measure: to ensure its utility, there must be clarity about what the measure is intended to achieve, in terms of the underlying theoretical framework, what the implications are, its research use and practical applications of the measure. Once the broad context and theoretical framework have been set, it is important to define the domain of interest. Rust and Golombok (1999) recommend using a grid structure to explore the domain or subject matter. Interviews, focus groups and literature review are other ways to define the domain of interest and its parameters.

### ***Item generation***

Once the context and the content of the measure have been broadly defined, the format of the items and of the response must be specified. Rust and Golombok (1999) suggest that the response format and the type of item statement should both be consistent throughout. Each item statement must be constructed according to the subject matter specification and should be specific, concise and unambiguous. Rust and Golombok (1999) also recommend that each item only includes one statement, is non-leading and avoids jargon. As items are likely to be rejected at the later stages in the construction of the measure, it is important to have more items than are expected to be required.

### ***Item analysis***

The items must then be piloted with both a qualitative and a quantitative review. In the qualitative review, Rust and Golombok (1999) recommend using 2 or 3 people who would be similar to those who are to be used for the quantitative pilot. It is recommended that the measure is administered face-to-face, and the participants asked for feedback on instructions, wording, layout and format. This process should be repeated until no further concerns are raised. The quantitative pilot should then be administered to at least 200 people, drawn from the population for which the measure is intended, to allow item, reliability and validity analyses. Item analysis involves checking the data received for item facility and item discrimination. The items to be used in the main pilot can then be decided.

### ***Assessment of Reliability***

The reliability of a measure concerns how accurate, precise and error-free its measurement is. There are two issues in reliability, first of all are the same units of measurement used each time we take a measure, secondly what is the margin for error each time a measurement is taken? There are three main types of reliability:

i) Test-Retest Reliability (Stability Coefficient): This is measured by correlating the responses from individuals who take the measure at time A and then again at time B. Test-retest reliability looks for the measure's stability of results over time.

ii) Internal Consistency Reliability (or 'Homogeneity'): This relates to the correlation between items on a measure to see if they are all measuring the same thing. Internal consistency is assessed from the inter-item correlations and can be calculated in a number of different forms. Many authors argue that high internal consistency is necessary for high validity. However, Kline (1986) argued that high internal consistency works against the notion of validity. If all items are very highly correlated they are very narrow and specific, in fact they may be paraphrases of each other. If this is the case then having a large number of items is pointless as they are all measuring exactly the same thing.

iii) Alternate (Parallel) form reliability: This is an alternative to using the same measure on two different occasions, and uses two different versions or forms of the same test. The *coefficient of equivalence* is obtained by using this method.

### **Assessment of Validity**

A measure is valid if it measures the concept that it claims to measure. There are four main types of validity:

i) Face Validity: This means that on looking at a measure the items *appear* to be relevant to the domain being tested. There is no logical relationship between face validity and psychometric validity: just because a measure looks like it measures the concept in question does not necessarily mean that it does.

ii) Content Validity: This refers to the appropriateness of the content of the measure, as judged by experts rather than target audience. It is the extent to which the items in a measure are a representative sample of the particular domain being tested. The construction of items must be meticulous and based on thorough research of the relevant domain. A statistical procedure called Factor Analysis can be used to establish that all items in the measure are related to the construct we are attempting to measure.

iii) Construct Validity: This refers to the attributes or traits that measures are designed to measure. To establish the construct validity, evidence that shows that the measure is really a measure of what it claims to be measuring must be produced. This could include all the other types of validity however, construct validity is usually referred to as exploring the relationship between a test and other means of measuring the same construct. These can be other psychometric tests or more direct behavioural measures. There are two types of construct validity that can be calculated using this multi-method comparison: convergent validity looks for high correlations between different methods of measuring the same construct; and divergent validity looks for low correlations between measures of different constructs.

iv) Criterion Related Validity: This is established by looking at the relationship between scores on a measure and external criteria, e.g. performance in a job role, training performance, successful career progression, supervisor rating, or salary level. There are two methods for obtaining criterion related validity: concurrent validity and predictive validity.

- Concurrent validity concerns the relationship between scores on the measure being tested and external criteria measures at the same time. It can be established by administering the tool to a group of current employees whilst obtaining an alternative measure of performance related to the criteria being identified.
- Predictive validity means that the measure predicts some external criterion at a point after the measure was completed. It is established by administering the tool at one point, and then, at a later date, measuring the relevant criteria. The criterion scores are then correlated with the measure scores to see how well it predicted the criteria.

### **Revisions and completion of the measure**

The development of a psychometrically sound measure is an iterative one. If the requirements at any of the stages of development are not met, the researchers are required to begin the process again, either at the scoping stage, or at the item generation stage.

#### **1.4.2 A review of the tools available to measure management and leadership**

In this section, the tools available to measure management behaviour both academically and within practice are described and reviewed. They are organised, for ease of interpretation, into the same 'management and leadership theory' headings as in section 1.2 and 1.3.

##### ***Task and relationship focused leadership behaviour tools***

The most commonly used measures of task and relationship focused behaviour, as cited by Judge, Piccolo and Ilies (2004), are the Leader Behaviour Description Questionnaire or LBDQ (Halpin, 1957), the LBDQ-Form X11 (Stogdill, 1963), the Supervisory Behaviour Questionnaire (SBDQ, Fleishman, 1989) and the Leader Opinion questionnaire (LOQ, Fleishman, 1989). In their review of the research and models around this particular theory, Judge et al. (2004) found that the LBDQ Form X11 was the most reliable and valid measure.

##### ***Transformational and Transactional Leadership Tools***

Bass & Avolio (1990) developed the Multi-factor Leadership Questionnaire (MLQ) which assesses transactional, transformational and laissez-faire leadership styles. However, Bycio, Hackett & Allen (1995), failed to find evidence of construct and discriminant validity within the measure. Concern also emerged regarding the MLQ generalisability to UK organisations.

Alimo-Metcalfe and Alban Metcalfe (2001) developed the Transformational Leadership Questionnaire (TLQ 2000a 2000b 2001) in an attempt to address these issues. The UK sample base included representative numbers of men, women and ethnic minorities across both private and public sector organisations and demonstrated good discriminant and construct validity (Alban-Metcalfe & Alimo-Metcalfe 2000). The validity of the TLQ was tested against five criterion variables, and all co-efficients were found to be highly significant, indicating strong convergent and divergent validity.

Many other transformational leadership scales have been developed. Two of the most commonly used are the Leader Behaviour Scale (Podsakoff, Mackenzie, Moorman & Fetter, 1990) and the Global Transformational Leadership Scale (GTL, Carless, Wearing and Mann, 2000). Our review did not find details of validity information with regards to the Podsakoff et al. measure, however validity coefficients were provided for the Carless et al. measure. The convergent validity of the GTL ranged from .76 to .88, providing evidence of strong convergent validity. Evidence of discriminant validity was also found.

##### ***Leader Member Exchange (LMX) Tools***

Two measures of LMX are generally used in the literature: the 12 item measure, called the LMX-MDM, by Liden and Maslyn (1998); and the seven item measure, called the LMX-7, by Graen and Uhl-Bien (1995).

##### ***Ethical Leadership Tool***

Brown et al. (2005) developed the Ethical Leadership Scale (ELS), which was based on research conducted across top executives, middle managers, supervisors, MBA students, and college seniors. The ELS includes ten items that measure dimensions of ethical leadership including trustworthiness, fairness, demonstrating concern for employees, setting ethical standards and disciplining those who violate these standards, and modelling ethical behaviour to employees. The ELS has been found to be positively correlated with consideration (.69), and negatively correlated with abusive supervision (-.61), indicating good convergent validity.

## ***Other Leadership and Management Tools and measures***

In addition to exploring the measurement tools relevant to the most commonly used leadership and management theories, our review also identified the following relevant measures of leadership and management behaviour: two tools that have been used in research relating to the impact of supervisor behaviour on employee well-being, the Supervisor Practices Instrument and the Survey of Management Practices; and two relevant UK measurement tools, the DTI's Inspirational Leadership tool and the Great 8 tool.

### ***Supervisor Practices Instrument***

The Supervisor Practices Instrument was developed by Gilbreath & Benson in 2004. The authors reviewed the literature on health and supervision, conducted critical incident techniques and interviewed supervisors about how they protect employee well-being. The final measure includes 63 items quantifying behaviour in the form of job control, leadership, communication, consideration, social support, group maintenance, organizing and looking out for employee well-being. The authors highlight that the measure is not a scale but a conglomerative measure of a variety of supervisor behaviours.

### ***The Survey of Management Practices (SMP)***

The survey of Management Practices was developed by Wilson and Wilson in 1991. This scale, which includes 11 leader behaviour scales, four interpersonal behaviour scales and a six item tension level scale, has been used by Offerman and Hellman (1996) to investigate the link between supervisor behaviour and employee well-being. Previous research has provided evidence of the SMP reliability and construct and criterion related validity (Wilson, O'Hare, & Shipper, 1990; cited by Offerman & Hellman, 1996).

### ***Inspirational Leadership Tool (DTI)***

Drawing on the research of DEMOS and The Chartered Management Institute, Garrett & Frank (2005) developed a tool that enables leaders to understand and use their strongest attributes in order to inspire others to follow them. The research identified patterns of behaviour around thinking, feeling, relating and behaving that inspired individuals to follow leaders. A total of 18 attributes were developed which clustered around four dimensions of inspirational leadership. These four dimensions are: creating the future; enthusing, growing and appreciating others; clarifying values; and ideas to action.

### ***Great 8 (SHL)***

'The Great Eight', developed by Bartram (2002), is a framework that identifies eight major domains of behaviour at work which influence performance. The broad areas cover all the aspects of behaviour that managers consider when they are looking at how people perform. The 'Great Eight' is applicable to all employee groups ranging from semi-skilled production workers to Chief Executive Officers.

Table 1.1 provides further information regarding the tools used for measuring leadership and management, including scales, items, reliability and the sample used to develop the measure.

**Table 1.1** Review of management and leadership measurement tools, their scales, items reliability and construction

Leadership Model	Tool	Authors	Scales	No. of Items	Reliability	Sample Item(s)	Sample
Transformational & transactional Leadership	Multifactor Leadership Questionnaire (MLQForm5X)	Avolio, Bass & Jung (1999)	<b>3 Higher Order</b>				3786 participants from 14 independent samples including students, administrators, supervisors middle-level managers from a nursing school and a government research agency as well as US Army Officers.
			Transformational				
			Developmental Exchange				
			Corrective Avoidance				
			<b>6 Lower Order</b>				
			Charisma	12	.92	Emphasizes the collective mission	
			Intellectual Stimulation	4	.83	Seeks different Views	
			Individualized Consideration	4	.79	Teaches and Coaches	
			Contingent Reward	4	.80	Rewards your achievement	
			Active Management-by-Exception	4	.63	Concentrates on failures	
Passive Avoidant	8	.84	Avoids involvement				
			<b>TOTAL</b>	<b>36</b>			
Transformational/ Transactional Leadership	Leader Behavior Scale	Podsakoff, MacKenzie, Moorman & Fetter (1990)	<b>Core Transformational</b>				Petrochemical company across US Canada and Europe. 90% male sample
			Articulating a vision	5		Understands where we are going	
			Providing an appropriate model	3	.87	Leads by example	
			Fostering acceptance of group goals	4		Fosters collaboration within work group	
			<b>Additional</b>			Will not settle for second best	
			High performance expectations	3	.78	Shows respect for my feelings	
			Individualised support	4	.90	Asks questions that prompt me to think	
			Intellectual stimulation	4	.91	Personally compliments outstanding work	
			Contingent Reward	5	.92	Clear & positive vision	
			<b>TOTAL</b>	<b>33</b>		Encourages development	
Transformational Leadership	The Global Transformational Leadership Scale (GTL)	Carless, Wearing & Mann (2000)	Communicates a vision	1	.93	Recognition to staff	1440 employees of large Australian financial institution
			Develops Staff	1		Fosters trust	
			Provides support	1		Encourages thinking in new ways	
			Empowers Staff	1		Practices what he/she preaches	
			Innovative	1		Instils pride and respect	
			Leads by example	1			
			Charismatic	1			
			<b>TOTAL</b>	<b>7</b>			

**Table 1.1** (continued) Review of management and leadership measurement tools, their scales, items reliability and construction

<b>Transformational Leadership</b>	<b>Transformational Leadership Questionnaire (TLQ) A 360-degree feedback instrument based on a public sector sample</b>	Alimo-Metcalf & Alban-Metcalf (2005)	–	<b>Leading and developing</b>			Information not provided	2000 mixed race, ethnicity and gender across top senior and middle management from UK NHS and local government.
				Showing genuine Concern	13	.95		
				Enabling	6	.86		
				Being Accessible	5	.84		
				Encouraging Change	8	.88		
				<b>Personal Qualities</b>				
				Being honest and Consistent	4	.93		
				Acting with integrity	9	.89		
				Being Decisive, Risk-taking	5	.83		
				Inspiring Others	5	.84		
				Resolving Complex Problems	5	.85		
				<b>Leading the Organisation</b>				
				Networking & Achieving	12	.92		
Focusing Team Effort	9	.90						
Building Shared Vision	7	.90						
Supporting a developmental culture	9	.90						
Facilitating Change Sensitively	6	.85						
<b>TOTAL</b>	<b>103</b>							
<b>Transformational Leadership</b>	<b>Transformational Leadership Questionnaire (TLQ) A 360-degree feedback instrument based on a private sector sample</b>	Alimo-Metcalf & Alban-Metcalf (2001)	–	<b>Leading and developing</b>			Information not provided	Information not provided
				Showing genuine Concern				
				Enabling				
				Being Accessible				
				Encouraging Change				
				<b>Personal Qualities</b>				
				Acting with integrity				
				Being Entrepreneurial				
				Inspiring Others				
				Resolving Complex Problems				
				<b>Leading the Organisation</b>				
				Networking				
				Focusing Effort				
Building Shared Vision								
Facilitating Change Sensitively								
Creating a culture of development								

**Table 1.1** (continued) Review of management and leadership measurement tools, their scales, items reliability and construction

<b>Ethical Leadership</b>	<b>Ethical Leadership Scale (ELS)</b>	Brown, Trevino & Harrison (2005)	Ethical Leadership	<b>10</b>	.91	Makes fair and balanced decisions Defines success not just by results but by the way they are obtained.	980 participants across 4 studies including undergraduate, MBA & I/O student & private sector employees
<b>Leader-Member Exchange</b>	<b>Leader-member Exchange (LMX)</b>	Graen & Uhl-Bien (1995)	Leader-Member Exchange	<b>7</b>	.89 (Gersnter & Day 1999)	How well do you think your manager understands your job related needs?	Information not provided
<b>Leader-member Exchange</b>	<b>Leader-Member Exchange-MDM</b>	Liden & Maslyn (1998)	Affect Loyalty Contribution Professional Respect	3 3 3 3	.90 (Pellegrini & Scandura 2006)	I do not mind working my hardest for my supervisor	500 working students
<b>Management skills and practices</b>	<b>The Survey of Management Practices (SMP)</b>	Wilson & Wilson (1991)	<b>TOTAL</b> Clarification of Goals and Objectives Upward Communications and participation Orderly Work planning Expertise Work Facilitation Feedback Time Emphasis Control of Details Goal Pressure Delegation Recognition for Good Performance	<b>12</b> 100	.79-.97 for all scales (Offermann & Hellmann 1996)	Information not provided	Information not provided
<b>Behavioural</b>	<b>The Great 8 (SHL) Competency Framework</b>	Bartram (2002)	Leading and Deciding Supporting and Co-operating Interacting and Presenting Analysing and Reporting Creating and Conceptualising Organising and Executing Adapting and Coping Enterprising and Performing	<b>8</b>	N/A	N/A	N/A

**Table 1.1** (continued) Review of management and leadership measurement tools, their scales, items reliability and construction

<b>Behavioural</b>	<b>Supervisor Practices Instrument</b>	Gilbreath & Benson (2004)	Job Control Leadership Communication Consideration Social Support Group Maintenance Organizing Employee Well-being	63		Is flexible about how I accomplish objectives Feel part of something useful, significant, valuable Encourages questions Shows appreciation for a job well done Steps in when help or support is needed Monitors and manages group dynamics Levels out work loads-reduces peaks/bootlenecks Strikes balance between productivity & well-being	167 men and women from various occupational settings and industries in the USA
<b>Behavioural</b>	<b>Leader Behaviour Description Questionnaire (Form X11)</b>	Stogdill (1963)	Initiating Structure Consideration <b>TOTAL</b>	15 15 <b>30</b>	.83 .93	He assigns group members to particular tasks He puts group suggestions into operation	A sample of 459 Aircraft commanders and educational administrators.
<b>Inspirational</b>	<b>Inspirational Leadership (DTI)</b>	Garrett & Frank (2005)	Creating the future Enthusing growing and appreciating others Clarifying Values Ideas to action	18		Information not provided	2,600 UK workers

\* Where the authors state 'Information is not provided', this indicates that our search has not elicited this information in freely accessible and published resources. This information may be available from the authors of the questionnaires.



## **1.5 THE NEED FOR FURTHER RESEARCH AND A MEASUREMENT TOOL**

### **1.5.1 The need for further research arising from the findings of Phase One**

Following the publication of the ‘Management competencies for preventing and reducing stress at work’ framework by the HSE (Yarker et al., 2007), and the related guidance leaflets by the CIPD (CIPD, 2007), anecdotal feedback suggests that the framework is already proving useful to practitioners. However, feedback also suggests that there is a need to refine the competency framework. The Phase One research identified 19 competencies that define the behaviours important for preventing and reducing stress at work. It is recognised that, in many situations, it is unrealistic for organisations or individuals to assess and/or develop such a large number of discrete sets of behaviour. In order to have practical value and make the framework more manageable for users, which is the aim of this research, it is necessary to reduce the number of behavioural competencies. To do this in a rigorous way, a quantitative research methodology is needed.

There is also a need to explore in more depth the ways that organisations can use the findings. Since the aim of the research programme is to support employers in tackling stress at work, we need to ensure that its outputs are in the form most appropriate and useful to the end users, i.e. line managers and Human Resources, Occupational Health, and Health and Safety practitioners.

### **1.5.2 The need for a measure of management competencies for preventing and reducing stress**

While the ‘Management competencies for preventing and reducing stress at work’ framework provides a useful starting point for discussion and reflection, it does not provide line managers or other practitioners with a means of assessing managerial competence in specific areas. For this, a quantitative measurement tool is needed.

One approach would be to use one of the existing tools developed to measure management and leadership. This chapter has reviewed the most commonly used management and leadership tools. It has shown that, while there are a number of widely used measures of management and leadership, the psychometric quality and practical application of these measures varies greatly. In addition, there are a number of limitations to the measures currently available in terms of their suitability for measuring management and leadership behaviour relevant to preventing and reducing stress at work:

- Studies that link management style to health outcomes predominantly draw from a-priori models of leadership which may fail to capture the unique set of behaviours specific to the management of well-being, health and stress of employees. Of those measures reviewed in section 1.4, only the Supervisor Practices Instrument (Gilbreath & Benson, 2004) was developed specifically to capture those behaviours required for the management of employee well-being. The issue however with this tool is that it provides conglomerative measure of a variety of supervisor behaviours, and therefore is difficult to identify which specific behaviours explain differences in health and work outcomes. It is also a model developed on a US based population.
- The research findings from Phase One of this project revealed that there are discrete sets of behaviour specific to the prevention and reduction of stress at work. The measures available do not appear to measure all of these behaviours and therefore any assessment of the link between management and health outcomes is likely to be underestimated. This study will further explore this hypothesis.

- The research, and measures, of management and leadership predominantly stem from the United States, the Netherlands and Scandinavian countries, and therefore further understanding of the UK perspective is required to explore any cultural differences in stress and its management.
- On a practical note, there are very few measures available to managers as a self-assessment tool that provide feedback in an assessable form. Those that do, tend to be available in the commercial field rather than the research field.

The above suggests that there is a need to develop a measure/tool that specifically examines the degree to which an individual exhibits the management behaviours emerging from the 'Management competencies for preventing and reducing stress at work' research.

## 1.6 OBJECTIVES OF PHASE TWO OF THE RESEARCH

To meet the needs identified above, the objectives of the second phase of this research programme are threefold:

- To **examine the usability, range of uses for and best approaches to using** the management competency framework developed in Phase One, by conducting a quantitative pilot and gathering qualitative evidence from Human Resources/Occupational Health/Health and Safety practitioners, and end users (line managers) on organisational needs and potential uses of the framework.
- To **refine and revise the competency framework** based on evidence from three sources: i) review of qualitative evidence from a pilot exercise, ii) reliability analysis and exploratory factor analysis and iii) literature review. A series of workshops will be conducted with stress management experts (including HR/OH/H&S practitioners, consultants and academics working within the field of stress management) to further refine the framework
- To **design a stress management competency indicator tool** that measures the degree to which an individual exhibits Management competencies for preventing and reducing stress at work.

## 1.7 CHAPTER SUMMARY

This chapter summarises the research conducted in Phase One of this research and the results of the literature review exploring the link between manager behaviour and employee well-being undertaken during Phase One, as well as providing a brief review of the literature published in 2007. This represented an update of the review undertaken in Phase One (Yarker et al., 2007).

The majority of the papers reviewed focused on the link between transformational, transactional and/or laissez faire leader behaviours and employee well-being. In addition to the research reviewed in Yarker et al. (2007), positive relationships were found with regards to optimism, happiness, enthusiasm, and meaningfulness, and negative relationships with regards to burnout, role conflict, role ambiguity, team conflict and bullying. A recent article published by Hooper and Martin (2008) extended previous research on the relationship between LMX and employee outcomes, focusing on LMX variability (the extent to which LMX relationships are perceived to vary in the team). High variability was found to be negatively related to employee well-being and satisfaction. Two papers also focused on other supervisory behaviours, firstly the positive impact of the use of rewards, recognition and respect on employee work attendance (Dellve et al., 2007), and secondly the impact of hostile

supervisor behaviour (such as blaming others, negative feedback, proclivity to argue) on anxiety, depression and somatic complaints of employees (Schaubroeck et al., 2007).

The second part of this chapter provides a review of the most common theories and measures of leadership and management. A brief overview was provided of the steps required to develop a good, psychometrically sound measure. The steps suggested (Rust & Golombok, 1999) included clear measurement requirements and theoretical framework, item generation, item analysis, assessment of reliability, assessment of validity and revisions/completion of measure. The tools available to measure management behaviour both academically and in practice were described, and 12 of these tools reviewed in light of the needs for tool development defined by Rust and Golombok (1999).

The need for further research is discussed, in terms of: the need to refine the 'Management competencies for preventing and reducing stress' framework; the need to explore and understand the usability of the framework to ensure that outputs are supportive in practice to employers, practitioners and line managers; and the need for a questionnaire tool to measure the competencies identified. While a range of measures of management and leadership exist, the review described above highlights their limitations in terms of measuring the behaviours relevant to the prevention and reduction of stress at work. In particular, it found that the published measures used to link management style to health outcomes predominantly draw from a-priori models of leadership, which may fail to capture the unique set of behaviours specific to the management of well-being, health and stress of employees. Only one of the measures reviewed (SPI, Gilbreath & Benson, 2004) was developed specifically to capture those behaviours required for the management of employee well-being: and this measure is based on a US model, and only provides a conglomerative measure of a variety of supervisor behaviours, limiting its use for identifying specific behaviours that explain differences in health and work outcomes.

The research detailed in the rest of this report, constituting Phase Two of the research programme, is designed to meet the needs identified, with specific objectives relating to: exploring usability, refining the 'Management competencies for preventing and reducing stress at work' framework; and developing an indicator tool to measure the relevant competencies.

## **2. METHOD**

### **2.1 OVERVIEW OF METHODOLOGY**

Data gathering for this research study involved a qualitative approach for the usability analysis; and a combined quantitative and qualitative approach for the construction of the ‘Stress management competency indicator tool’ and the refinement of the ‘Management competencies for preventing and reducing stress at work’ framework.

Usability analysis aimed to test the utility of both the competency framework and the questionnaire tool within organisations. Participants in this part of the research included: managers and stakeholders working in the five HSE priority sectors (Education, Healthcare, Central Government, Local Government and Finance) along with one organisation from an ‘Other’ sector; and stress experts, comprising independent stress practitioners, Human Resources, Occupational Health and Health and Safety professionals. Data gathering included structured one-to-one interviews and workshops. The sample included 47 managers, 6 stakeholders and 38 stress experts. Interview and workshop data was transcribed and content analysis was used to extract themes.

The quantitative phase of data gathering focused on constructing a stress management competency indicator tool and refining the framework that emerged from Phase One of this research programme. Behavioural statements were extracted from the Phase One data (see Yarker et al., 2007) and tested both qualitatively and quantitatively. The piloted indicator tool was then used as an upward feedback measure in 22 organisations. Participants included managers and their direct reports working within the five HSE priority sectors, along with one ‘Other’ organisation. Managers responded to the indicator tool with their perceptions of their own behaviour, and direct reports responded on their perceptions of their manager’s behaviour. The sample included 152 managers and 656 direct reports. Data was analysed using reliability analysis and exploratory factor analysis in order to establish the psychometric properties of the indicator tool and provide information on the factorial structure of the competency framework.

This section covers:

- 2.2 Recruitment of participating organisations and sample
- 2.3 Usability study/Qualitative data collection
- 2.4 Development of prototype ‘Stress management competency indicator tool’
- 2.5 Piloting the management competencies/ Quantitative data collection
- 2.6 Literature review/Mapping the indicator tool against published metrics and frameworks
- 2.7 Data storage, confidentiality and individual feedback

## **2.2 RECRUITMENT OF PARTICIPATING ORGANISATIONS AND SAMPLE**

### **2.2.1 Recruitment of participating organisations**

22 organisations took part in this research. The majority of participating organisations (n=16) were those who had already participated in Phase One of the research (for details of initial recruitment procedures: see Yarker et al., 2007) and requested that their involvement in the project continued. The remaining organisations (n=6) were contacted and secured as a result of both networking and interest generated by the dissemination of the Phase One research findings, via the research report (Yarker et al., 2007), CIPD guidance leaflets, presentation at conferences, seminars, training sessions, and in meetings and conversations with stakeholders at other participating organisations. For full breakdowns of the participating organisations, please refer to Appendix 2.0.

Key stakeholders within the participating organisations were contacted and given details about the research through provision of an information sheet, which outlined the scope, requirements and benefits of collaboration with the project. An example of recruitment material is included in Appendix 2.1.

### **2.2.2 Recruitment of participants within organisations**

Organisational stakeholders helped to recruit participating teams within each organisation. In order to protect the confidentiality of direct reports, who were required to rate their perceptions of their manager's behaviour, a requirement of participation was that only teams with three or more direct reports would be included. Further, only where three or more of the direct reports responded to the questionnaire would managers receive individual feedback. In all cases, stakeholders provided the names and details of managers within their organisation who were willing to take part in the research, and who managed teams with three or more direct reports. It was requested that each organisation provided ten manager names. Suitable managers were recruited via a number of methods as decided by stakeholders within the organisation. In the majority of cases, stakeholders specifically targeted a particular site, department (for instance customer services or finance), or manager category (for instance middle managers who had only been in position for a year, those who were part of the management development programme or all academic staff). The relevant managers were approached, provided with brief details of the research and asked to participate. In a small number of cases, managers were specifically chosen to participate due to their previous contact with the Health and Safety Department, participation in Phase One, or their perceived 'willingness' to participate in research. In all cases, managers were informed that their participation was voluntary and that confidentiality was assured. An example of recruitment materials provided to managers is included in Appendix 2.2.

Following recruitment of team managers, direct reports were then recruited. In the majority of cases, managers provided the names of all their direct reports, who were then contacted separately by researchers, provided with details of the research (particularly focusing on confidentiality) and asked to participate. Managers were not informed who, or how many of their team had agreed to participate, but were informed if less than three direct reports were willing to take part. In a small number of cases, managers provided the names of the direct reports who would be participating. In these examples, researchers still provided details of the research to the direct reports, re-iterating the confidentiality of the process. These particular direct reports were also given the option to withdraw from the research without the knowledge of their manager. An example of recruitment materials provided to employees is included in Appendix 2.3.

656 direct reports and 152 managers participated in this study. A breakdown of participants by sector is provided in Table 2.0 below. Demographic material was available for 67% (n=442) of direct report participants. Overall, 32% were male and 60% female (8% declined to answer this question). The average age of direct reports was 39 years, ranging from 19 to 64. On average, direct reports had been in the organisation for 10.63 years (ranging from 6 months to 39.75 years), in their job for 5.24 years (ranging from 6 months to 32.5 years) and in their team for 3.39 years (ranging from 6 months to 39.75 years). The average number of hours worked per week for direct reports was 35.8 hours (ranging from 7 hours to 90 hours).

Demographic material was available for 61% (n=92) of manager participants. Overall, 52% were male and 40% were female (8% declined to answer this question). The average age of managers was 44.5 years, ranging from 29 to 62 years. On average, managers had been in the organisation for 13.07 years (ranging from 6 months to 38.42 years), in their job for 4.21 years (ranging from 6 months to 20 years) and in their team for 3.63 years (ranging from 1.17 years to 7.08 years). Managers worked 43.21 hours per week on average, with hours ranging from 14 to 85 hours per week.

**Table 2.0** Breakdown of participants by sector

<i>Sector</i>	<i>Direct Report</i>	<i>Manager</i>	<i>Total</i>
Education	138	31	169
Central Government	79	32	111
Local Government	61	23	84
Finance	247	28	275
Healthcare	107	34	141
Other	24	6	30
Total (N)	656	152	808

### **2.2.3 Recruitment of workshop participants**

38 professionals took part in this research. All were recruited through existing contacts of the research team, although none had participated in either Phase One or the other studies within Phase Two of the research. The professionals were contacted and given details of the research through provision of an information e-mail, which outlined the scope, timings, requirements and benefits of workshop attendance. An example of the recruitment material is included in Appendix 2.4. Of the 38 professionals, 58% were independent practitioners and experts in the field of stress and stress management, 32% were either Human Resources, Occupational Health or Health and Safety professionals, and the remaining 10% were sponsors of the project (HSE, CIPD and IIP). Further demographic information was not collected from this group of participants.

## **2.3 USABILITY STUDY/QUALITATIVE DATA COLLECTION**

### **2.3.1. Usability interviews with managers**

All managers who took part in the research study were offered both written and face-to-face feedback after completing their 'Stress management competency indicator tool', provided that three or more direct reports had completed the questionnaire giving feedback on their behaviour. This applied to 96 managers. Those that requested face-to-face feedback, also agreed to participate in a usability interview. Usability interviews were carried out with 47 managers (49%), the aim of these being to gather evidence on the utility of the framework and the 'stress management competency' indicator tool within organisations. Interviews were carried out face-to-face with managers by members of the research team. A structured interview methodology was chosen, and five questions were asked to explore the utility of the questionnaire and process. The five questions used followed the procedure described in the piloting of the Management Standards Indicator tool to ensure consistency (Cousins, Mackay, Clarke, Kelly, Kelly and McCaig, 2004).

The following five questions were asked:

1. How easy was the questionnaire to answer?

Managers were asked to respond on a four point scale (Very easy, easy, not very easy and difficult) and were also asked to comment further if appropriate.

2. Were there any items or competencies that were not relevant to your current role?

Managers were asked to respond 'Yes' or 'No'. If they answered 'Yes' they were questioned around the particular items and competencies this answer referred to.

3. Were there any gaps or exclusions from the questionnaire?

Managers were asked to respond 'Yes' or 'No'. If they answered 'Yes' they were questioned around the particular gaps or exclusions this answer referred to.

4. Is the questionnaire accurate in identifying key management development areas?

Managers were asked to respond 'Yes' or 'No'. They were encouraged to further expand on this answer whether responding positively or negatively.

5. What would be the best use of the questionnaire?

Managers were given four choices (self report without feedback, self report with feedback, upward feedback and 360 degree feedback) and asked to state which they felt represented the best use of the questionnaire. They were also given the option to comment further on this answer.

Manager responses were transcribed and both frequency and content analysis was used to draw themes from the data.

### **2.3.2 Usability interviews with stakeholders**

Stakeholders at the organisations who took part in the research study were asked if they would take part in a usability interview to further explore the utility of both the competency framework, and the 'Stress management competency indicator tool' within their organisation. Usability interviews were carried out with six stakeholders. Interviews were carried out by e-mail by members of the research team. A structured interview methodology was chosen. The same five questions asked to managers, as described in section 2.3.1, were also directed to the stakeholders. Two further questions were also asked to the stakeholders, again ensuring consistency with the procedure described in the piloting of the Management Standards Indicator tool (Cousins et al., 2004). The following two additional questions were asked:

1. In what ways would the framework of 'Management competencies for preventing and reducing stress at work' fit into your existing HR policies and practices?
2. How do you see the questionnaire tool to measure these competencies fitting into your existing HR policies and practices?

Stakeholder responses were transcribed and both frequency and content analysis used to draw themes from the data.

### **2.3.3 Workshops with experts**

The primary aim of the workshops with experts was to review and add to the validation of the emergent Phase Two competency framework and 'Stress management competency indicator tool'. In addition, participants were asked to contribute to the usability data by responding to the supplementary questions asked of the stakeholder group, namely:

1. In what ways would the framework of 'Management competencies for preventing and reducing stress at work' fit into your existing HR policies and practices?
2. How do you see the questionnaire tool to measure these competencies fitting into your existing HR policies and practices?

In addition, in order to quantify some of the discussions around the use of the questionnaire tool in particular, two informal questions were asked and responses were recorded on a 'show of hands' basis.

These questions were:

1. How many of you would use the questionnaire as a selection tool?
2. How many of you would use the questionnaire as part of a performance management/ performance appraisal toolkit?

All questions were posed as part of a plenary discussion and responses recorded on paper by a member of the research team. Following the workshop, responses were transcribed and content analysis was used to draw themes from the data.

## **2.4 DEVELOPMENT OF PROTOTYPE 'STRESS MANAGEMENT COMPETENCY INDICATOR TOOL'**

In Phase One of the research, a qualitative approach was used to elicit the behaviours associated with management of stress in employees (see Yarker et al. (2007) for full details). Participants included 216 employees, 166 line managers and 54 HR practitioners working within the five HSE priority sectors: Education, Healthcare, Central Government, Local Government and Finance. Data gathering included: structured one-to-one interviews incorporating the critical incident technique; workshops; and written exercises. The interviews, specifically focused on capturing both effective and ineffective examples of management under times of pressure, were carried out with both employees and managers. Interviews were transcribed and content analysis was used to extract themes and develop a coding framework. Following completion of content analysis, an emergent competency framework was developed. Behavioural indicators generated from the written exercises completed by interviewees and the workshop exercises completed HR professionals were extracted. Content analysis was used to fit the data into the existing framework. The emergent 'Management competencies for preventing and reducing stress at work' framework revealed 19 stress management competencies, which were found to be consistent across the sample (the same competencies were referred to by both managers and employees, and by interviewees from all five sectors covered). For full details of the Phase One methodology and results, please refer to Yarker et al. (2007).



In order to develop the competency framework into a questionnaire, or indicator tool, for the purpose of Phase Two, the researchers re-analysed the Phase One data using a within-competency design. Each competency was probed and specific observable behaviours extracted. In order to convert these behaviours into statements for the pilot questionnaire, and to ensure all followed a standard format, Facet Theory was applied (Donald, 1995). This is a theory widely used for the formulation of psychometrically valid scales, such as the TLQ (Alimo-Metcalfe & Alban-Metcalfe, 2001). In order to satisfy the requirements of Facet theory, the statements needed i) overall, to cover all 19 competencies, ii) each individually to reflect a single dimension or competency, iii) to include an active verb, and iv) to refer to an observable, or inferable behaviour. Facet theory also suggests that each question is phrased positively. However, in order to reflect the behaviours extracted from Phase One, phrasing of the statements was chosen to reflect that of the original behaviours. As a result statements in all of the competencies (with the exception of 'Seeking advice' which had no negative behavioural indicators) comprised a mixture of positive and negatively phrased statements. This mixture, although contrary to Facet Theory, is consistent with good practice in psychometric scale development (e.g. Coolican, 2004). Researchers met to discuss each of the items, ensuring that that all ambiguous, double-barrelled or leading questions were re-written or deleted. It was also ensured that all items described behaviour rather than outcomes, consistent with guidance from Hunt (1996). The preliminary questionnaire consisted of 156 items.

A five point Likert scale was used for the response scale. Responses ranged from 'Strongly Agree' to 'Strongly Disagree' with an additional response option of 'No opportunity to observe'. Using a Likert scale rather than a frequency scale was chosen for a number of reasons. Firstly, it was chosen to enable comparison with other leadership scales (e.g. the Multifactor Leadership Questionnaire, Bass & Avolio, 1995). Secondly, Shipper and Davy (2002) found that correlations were greater with Likert than frequency scales. Finally, frequency scales may distort data if some of the behaviours are relatively rare (Shipper and Davy, 2002). As some of the competencies referred to situations such as bullying, which are important, but, in the main, infrequent, it was felt that it would not be appropriate to use frequency scales.

This questionnaire was tested qualitatively by being distributed to 15 organisational stakeholders and 6 Occupational Psychologists. The 21 participants in the qualitative test were asked to comment on item relevance, intelligibility, use of jargon and ambiguity. As a result of this test, four questions were deemed inappropriate or redundant and deleted from the scale.

The remaining 152 items then underwent a quantitative test using a snowball sampling methodology. Questionnaires were distributed on-line using surveymonkey, an on-line questionnaire builder. The criteria for participation was that respondents needed to be employees and had been managed either currently, or previously, for more than six months. A short description of the study was included. The instructions to participants was to rate either their current manager, or a manager they had worked with previously for more than six months. Each item was prefixed by 'My manager...'. Examples of item included 'Gives me the right level of job responsibility', and 'Makes an effort to find out what motivates me at work'. Participants were also given the opportunity to provide further comments on any questions that were not relevant, ambiguous or unintelligible.

Data was collected from 292 participants and imported into SPSS. Following this stage, the data was analysed using a process of reliability analysis on each competency, as described by Rust and Golombok (1999). This involved five steps. The first step involved an exploration of central tendency, excluding any items with a facility index (mean score across all respondents) equal to or approaching either extreme score. The second step investigated the dispersion in the data, excluding items with a good facility index but very low standard

deviations. As a result of these first two stages, 24 items were excluded. Thirdly, item-total correlations were explored and items with correlations below 0.2 were excluded. The fourth step was to examine inter-item correlations, excluding items that were too highly correlated (above 0.9). Finally, squared multiple correlations were explored and very low scores excluded. The final three stages resulted in a further 16 items being removed, therefore resulting in the creation of a 112-item questionnaire.

## **2.5 PILOTING THE MANAGEMENT COMPETENCIES/QUANTITATIVE DATA COLLECTION**

### **2.5.1 Questionnaire survey (upward feedback)**

Questionnaires were distributed to managers and direct reports in 22 organisations. All but three organisations chose for the questionnaires to be distributed on-line. Where this method was used, each participant who had provided informed consent was sent an e-mail with a unique link, in order to protect anonymity, allowing them to access the on-line system. The on-line system contained information on: the project itself (including the background to the project and the issue of work related stress), confidentiality, feedback processes and answers to frequently asked questions. It also provided contact details for the researchers should any participants be unhappy with the process and wanted to withdraw from the research, or wanted to comment on any aspect of the project. Two organisations chose to distribute paper questionnaires to participants. In this case, participants were provided with a sealed envelope, distributed via internal mail, which had their name paper-clipped onto the outside of the envelope. Each envelope contained a covering letter explaining the study and confidentiality and providing their unique code number, the paper questionnaire and a reply paid envelope. Participants therefore returned questionnaires directly to the researcher. One organisation chose to have questionnaires completed face to face. In this case, one of the researchers visited the organisation, provided a short presentation about the research and the provisions for confidentiality, and responded to all questions and queries. Once all issues had been dealt with, questionnaires were distributed directly to participants for them to answer during the session. This process was carried out in two sessions – one for managers and one for direct reports to reduce any issues of confidentiality. Once completed, the questionnaires were handed back to the researcher.

All direct reports were asked to answer the questionnaire based on their current manager, and therefore provide rating of their perceptions of their manager's behaviour. Each item was prefixed by 'My manager...'. In some organisations, direct reports had more than one manager (for instance in organisations with matrix structures). In this case, the e-mail sent to direct reports included the manager name. All managers were asked to answer the questionnaire based on their perceptions of their own behaviour. Examples of both the direct report and manager questionnaire are included in Appendix 2.5.

For all paper entry and on-line questionnaires, participants were given three weeks to complete their questionnaire, with weekly reminders via e-mail. The exception to this was within Healthcare sector organisations where as a result of delays incurred in the ethical approval process (COREC), participants were only given one week to complete their questionnaire. This resulted in a lower response rate for the Healthcare sector.

## 2.5.2 Statistical analysis of quantitative data

Data was collected from 656 direct reports and 152 managers. It was decided that only data from direct reports would be analysed further, due to the issue of self vs. other reporting being possibly a confounding factor. The large direct report sample size allowed this decision to be taken without any statistical detriment. The manager data was used to compile written feedback reports for managers, and to compile organisational summary data.

Reliability analysis was again conducted on the data, following the same steps as those suggested by Rust and Golombok (1999), and described in section 2.5.1. The criteria from this analysis allowed a further 13 questions to be excluded, creating an item pool of 99 questions.

In order to establish the psychometric properties of the 'Stress management competency indicator tool', and provide information about the factorial structure of the competency framework, the data was then subjected to Exploratory Factor Analysis. Exploratory factor analysis has traditionally been employed by researchers in the field of leadership and management to determine the number of underlying dimensions in the data (e.g. Kouzes & Posner, 1990). In order to ensure that a rigorous approach was taken to the Factor Analysis, the guide by Ferguson and Cox (1993) was used.

Data was first prepared by recoding the 'no opportunity to observe' responses to 'missing data' to avoid negative skew. The negatively phrased questions were reverse coded. Pre-analysis checks were carried out on the data to ensure that a stable factor could emerge from the data, that the items were properly scaled and free from bias, and that the data set was appropriate for the application of Exploratory Factor Analysis (EFA). This stage is described by Ferguson and Cox (1993) as 'one of the most important'. In order to satisfy the requirements of a stable factor, a minimum sample size of 300 was required (Guadagnoli and Velicer, 1988, cited by Ferguson and Cox, 1993), the subjects-to-variables ratio had to be between 2:1 and 10:1 (Nunnally, 1978) and the relative proportions of variables to expected factors had to be between 2:1 and 6:1. All requirements were satisfied by the data set.

EFA requires that the variables used demonstrate univariate normality (Ferguson and Cox, 1993). Due to skew and kurtosis being present in the data, a heuristic suggested by Ferguson and Cox (1993) was used. This suggests that having calculated the percentage of items affected by skew and kurtosis (and if this applies to 25% or less of the items), the percentage of correlations within each correlation range is calculated. As over 60% of the correlations were below 0.2, following Ferguson and Cox's (1993) instructions, regardless of the number of variables affected by skew and kurtosis, all the variables could remain in the analysis. Finally, the Kaiser-Meyer-Olkin (KMO) test of sampling adequacy was used, the results of which were satisfactory.

Principal Components analysis was chosen as the extraction algorithm, suggested by some authors as the recommended first step in EFA (Tabachnick & Fidell, 1989; Ferguson & Cox, 1993). Application of a scree test (Ferguson & Cox, 1993) suggested four factors should be rotated. An oblique criterion was selected and a direct oblimin rotation was found to produce the most appropriate factor structure. Items that loaded at or above 0.40 were regarded as significant (Ferguson & Cox, 1993). Items which loaded significantly onto more than one factor were: excluded where the difference was less than 0.20; or allowed to remain where the difference was above 0.20, in which case, they were assumed to load on the factor with the highest loading (Ferguson & Cox, 1993). The analysis was re-run until the final pattern matrix satisfied these criteria. The final pattern matrix contained 67 items across four factors.

### **2.5.3 Workshops with experts**

In addition to their contribution to the usability data, as described in section 2.3.3, experts were asked to contribute to the development and validation of the refined competency framework and the indicator tool. In each workshop, experts were arranged in groups of between four and six. Each group was provided with a sheet which revealed the emergent four factor structure of the competency framework, listing each individual item in each factor. (For a copy of this sheet, see Appendix 2.6.) In groups, experts were then asked to name each factor. This generated a list of nine names for each factor. An independent observer was, at a later stage, provided with the nine generated names, and asked to choose the preferred option in order to decide on final names for each of the four factors. This process was to ensure relevance within organisations and practice, and reduce the impact of researcher bias to the process.

The same groups were then asked to perform a second exercise to develop sub-clusters within the competencies. Each group was provided with four envelopes (one per factor) with each envelope containing a slip for each of the items within that factor. Working on one factor (i.e. one envelope) at a time, first the groups were asked to review the slips/items from this factor and explore if the items fell into clusters or sub-themes. Instructions (see Appendix 2.7) were provided that if it was judged that there was more than one cluster or sub-theme within the factor, the questions that made up each cluster were to be stuck onto a sheet of paper, generating one sheet per cluster. Groups were then asked to name each cluster. Further, groups were asked to indicate any questions that were felt to be irrelevant, outside of the cluster, or not useful. This process was then repeated for each of the four factors/envelopes. As the resultant clusterings differed slightly between groups, it was difficult to provide the decision task to an independent observer. Therefore, following the independent factor naming, the research team met and agreed upon the most appropriate cluster structure and namings. This process is consistent with other published methodologies (e.g. Patterson, Ferguson, Lane, Farrell, Martlew and Wells, 2000).

### **2.5.4 Producing the refined framework and indicator tool**

As a result of feedback from managers, stakeholders and experts, final revisions were made to the framework and indicator tool. One item was removed, namely 'My manager organises social events for the team', and one item re-worded from 'My manager brings us treats such as cakes' to 'My manager brings us treats'. The final indicator tool contained 66 items across four competencies.

## **2.6 LITERATURE REVIEW/MAPPING INDICATOR TOOL AGAINST THE MANAGEMENT STANDARDS, PUBLISHED FRAMEWORKS AND METRICS**

The revised 'Management competencies for preventing and reducing stress at work' framework was compared to the HSE Management standards to identify commonalities and discrete components related to the effective management of stress at work. Two researchers completed this task together in order to reach agreement. For results of this comparison, see section 3.5.1.

The literature search, as described in Chapter One, was undertaken to explore the other published management/leadership competency frameworks and validated indicator metrics, academic and practitioner focused. This was used to compare the revised framework and the emergent stress management competency indicator tool with existing management and leadership frameworks and metrics. It identified 12 frameworks, including five transformational leadership frameworks (the Multifactor Leadership Questionnaire, MLQ, Avolio et al., 1999; the Leader Behaviour Scale, LBS, Podsakoff et al., 1990; the Global Transformational Leadership Scale (GTL), Carless, et al., 2000; TLQ (Public Sector), Alimo-Metcalfe & Alban-Metcalfe, 2005; and the TLQ (Private Sector), Alimo-Metcalfe & Alban-Metcalfe, 2001). Other academically published leadership scales included the Leader Behaviour Description Questionnaire (LBDQ, Stogdill, 1963), the Ethical Leadership Scale (ELS, Brown et al., 2005), the Great 8 competency framework (Bartram, 2002), Supervisor Practices Instrument (SPI, Gilbreath & Benson, 2004) and the Survey of Management Practices, or SMP, (Wilson & Wilson, 1991). The Inspirational Leadership scale developed by the DTI (Garrett & Frank, 2005) was also considered, along with two scales measuring Leader-Member Exchange (LMX-7, Graen & Uhl-Bien, 1995; and LMX-MDM, Liden & Maslyn, 1998). Please note only one LMX scale (LMX-7) was included in the mapping exercise. In order to do this, following the methodology developed in Phase One (Yarker et al., 2007), two researchers separately completed a mapping exercise. Inter-rater agreement was then calculated and a final mapping for each framework agreed. A copy of the mapping exercise is included in Appendix 2.8.

## **2.7 DATA STORAGE, CONFIDENTIALITY AND INDIVIDUAL FEEDBACK**

Stakeholders within each organisation were provided with details of confidentiality at the initial contact stage. This clarified that: before providing either written and/or verbal feedback to managers, consent would be gained from each direct report; that managers would only receive feedback when responses were received from three or more of their direct reports; that the feedback itself would then be confidential to the manager; and that feedback information would be reported back to stakeholders at the group organisational level only (meaning the grouped results from all teams participating), therefore providing summary rather than management team data.

Managers were advised that individual feedback (both written and verbal) would only be provided as a grouped response from their team – in other words, no individual direct report responses would be revealed – and further that no manager would receive individual feedback if less than three direct reports chose to participate. Managers were advised that no-one within the organisation (within or outside their team) or outside of the research team would see any individual, or team, responses to the questionnaires.

Due to the sensitive nature of the responses provided by direct reports, the confidentiality information was central to all communication from the researchers. Direct reports were advised that the involvement in the research was entirely voluntary and that if they chose not to participate, neither their manager, nor the organisation would be informed. This was important given that in some cases, the managers had 'selected' participants. A sentence was also included stating that there would be no detriment to their current or future employment should they decide not to participate, or would like to withdraw from the research at any point. Direct reports were also informed that feedback to the manager would take the form of a grouped response rather than reflecting individual responses, and would not be provided if less than three direct reports chose to participate. It was also highlighted that their manager would not be able to see whether or not an individual team member responded, let alone what the individual responses were.

The procedures relating to all three groups (direct reports, managers and stakeholders) was consistent with the United Kingdom's Data Protection Act and all e-mails to managers and direct reports were approved by stakeholders in the organisation prior to distribution.

Additionally, for the Healthcare sector, ethical approval needed to be gained prior to commencement of the study in each organisation, consistent with the requirements of COREC.

All interview data was transcribed from the original format, after which the original notes were destroyed. All written data (including paper questionnaires) were anonymised, coded and stored securely at Goldsmiths, University of London. The on-line data was anonymised, coded and stored securely on the external service provider's server. Only the research team (and the direct contact at the external provider) has access to this data.

## **2.8 CHAPTER SUMMARY**

A qualitative approach was used to explore the utility of both the competency framework and the stress management competency indicator tool within organisations. Participants included managers and stakeholders working with the five HSE priority areas (Education, Healthcare, Central Government, Local Government and Finance), along with one organisation from an 'Other' sector; and stress experts, comprising independent stress practitioners, Human Resources, Occupational Health and Health and Safety professionals. Data gathering included structured one-to-one interviews and workshops. The sample included 47 managers, 6 stakeholders and 38 stress experts. Interview and workshop data was transcribed and content analysis was used to extract themes.

A combined quantitative and qualitative approach was taken to construct a stress management competency indicator tool, and revise the existing 'Management competencies for preventing and reducing stress at work'. Behavioural statements were extracted from the Phase One data (see Yarker et al., 2007) and tested both qualitatively with stakeholders and experts (n = 21) and quantitatively with a snowball sample of employees (n = 292). Following reliability analysis, the revised questionnaire, consisting of 112 items was used as an upward feedback measure in 22 organisations. Participants included direct reports and managers working within the five HSE priority areas, along with one 'Other' organisation. Managers responded to the questionnaire with their perceptions of their own behaviour, and direct reports responded on their perceptions of their manager's behaviour. The sample included 152 managers and 656 direct reports. Direct report data was analysed using reliability analysis and exploratory factor analysis in order to establish the psychometric properties of the indicator tool and provide information on the factorial structure of the competency framework. Exploratory factor analysis revealed a four factor solution. To further validate this solution, two workshops of stress experts (n =38) explored the framework, named each factor and identified sub-clusters.

The revised 'Management competencies for preventing and reducing stress at work' framework and emergent 'Stress management competency indicator tool' was then compared to the HSE Management Standards to identify commonalities and discrete components related to the effective management of stress at work. A literature review and further mapping exercise were also conducted to compare the revised framework and emergent indicator tool with 12 existing management/leadership frameworks and metrics.

## **3 RESULTS**

### **3.1 OVERVIEW OF RESULTS**

Usability interviews were carried out with 47 managers and 6 stakeholders. Information was also gathered at workshops with 38 Human Resource, Occupational Health, and Health and Safety professionals, and independent stress experts. Questions were focused around two areas: the usability of the competency framework, and the usability of the indicator tool. Interview and workshop data was transcribed and content analysis was used to extract themes.

The prototype indicator tool was completed by 656 direct reports. This data was analysed using exploratory factor analysis. An oblique criterion was selected with direct oblimin rotation. The final pattern matrix contained 67 items across four factors. Two expert workshops, combined with independent observer and research team input, were used to name the factors, and define sub-clusters within each factor. Each factor was separated into three sub-clusters, therefore creating a new structure of four competencies and 12 sub-competencies. This resulted in a refined 'Management competencies for preventing and reducing stress at work' framework. Following the statistical analysis on the data, and feedback from managers, stakeholders and employees, the final number of questions was reduced to 66. A refined 'Stress management competency indicator tool' was then created.

The refined 'Management competencies for preventing and reducing stress at work' framework was mapped onto the HSE Management Standards, and onto 12 general management frameworks in order to compare the sub-competencies within the refined framework and measured by the 'Stress management competency indicator tool' with other published and commonly used frameworks.

This section covers:

3.2 Usability Results

2.3 Refined 'Management competencies for preventing and reducing stress at work' framework

2.4 Refined 'Stress management competency indicator tool'

2.5 Results of mapping the 'Management competencies for preventing and reducing stress' framework and the 'Stress management competency indicator tool' onto published metrics and frameworks

### **3.2 USABILITY RESULTS**

Usability interviews were carried out with 47 managers and 6 stakeholders. Information was also gathered at workshops with 38 Human Resource, Occupational Health, and Health and Safety professionals, and independent stress experts. Questions were focused around two areas: the usability of the competency framework, and the usability of the questionnaire tool.

### **3.2.1 Usability of the competency framework**

Both stakeholders and workshop participants were asked the following question: *'In what ways would the framework of 'Management competencies for preventing and reducing stress at work' fit into your existing HR/H&S policies and processes?'*

#### ***Stakeholder perceptions***

Stakeholders' responses to this question fell into two core themes. The first concerned the fit of the competency framework into existing HR/H&S policies. Suggestions were: that the framework could be used to further develop policies in the areas where employee stress has a particular impact on work, particularly Managing Attendance, Welfare and Equal Opportunities; that it could be used as an appendix to existing policies; and also that it could be used in the review of existing stress policies. On this suggestion, one stakeholder commented: *'The framework is easy to understand and explain and will be useful when we are devising our action plans for our audits of workplace stressors'*.

The second theme concerned the fit of the framework into leadership development and training initiatives. Stakeholders felt that the competencies would be applicable at all levels of management, and could be useful both to dovetail into existing competency frameworks, and to enable the development of more inclusive leadership training and development programmes. One stakeholder commented that the competencies *'are a really practical way of drilling into some key areas of managerial activity that is outside of the scope of our existing competency framework.'* The stakeholder added *'I like the fact it is about behaviour and not personality, which makes it achievable and non-stigmatising'*.

#### ***Workshop participant perceptions***

Workshop participants also felt that the framework could be used in a number of ways. As with the stakeholders, this group mentioned both integration with stress management processes (although interestingly not other H&S/HR policies and processes) and broader leadership development and training processes. A different perspective in terms of training was offered, in suggesting that the framework could be used within training packages or workshops, not necessarily specifically focused on stress management, using the framework as a checklist, or a guiding structure for this process.

It was reported that the framework was already proving useful in organisations: at an individual level in enabling managers to access specific and clear guidance about behaviours they should be displaying; and also on a group/organisational level to guide design of training programmes and interventions. Finally, there was support for the competency framework to be used at a more global level, suggesting the integration of the framework with a variety of national training programmes and frameworks.



### **3.2.2 Usability of the questionnaire tool: perceived fit with existing policies and processes**

Both stakeholders and workshop participants were asked the following question: *‘How do you see the questionnaire tool to measure these competencies fitting into your existing HR/H&S policies and processes?’*

#### **Stakeholder perceptions**

The majority (four out of six) of stakeholders saw the primary use of the tool being within a more general management development context. The responses were that the tool could be part of a comprehensive approach to management development and as an *‘aid to personal insight and change in one-to-one consultations or coaching’*. The following comment from a stakeholder summarises the responses *‘It would be an excellent idea to build the competency assessment into our Management Development programme. I think these could be used as ... part of a module where you are asking individuals to consider the best way of managing staff. We would have to overlay this work on the leadership competencies, but I am sure there is room for both’*. One stakeholder also suggested that they would use the questionnaire tool at an executive level *‘particularly in terms of identifying the sort of culture that is set from the top of the organisation’*.

Two of the six stakeholders saw the primary use of the questionnaire tool as part of the stress policy or risk assessment process. One felt that the tool would be useful in specific situations or scenarios, for instance if senior management acknowledged that a particular team or function was under high stress levels; or when a specific line manager or employee was seeking help with problems that could be stress-related. The other stakeholder saw the tool being used to provide information about behaviour at the local level during a stress risk assessment both to the manager and the department/organisation as a whole.

#### **Workshop participant perceptions**

As with the stakeholder responses, workshop participants saw the usability of the questionnaire tool in both a stress management context, and a leadership development context. Interestingly, this group saw the primary use of the questionnaire tool in the former context as an individual diagnostic, enabling the organisational stress management programme to be focused locally on the individual manager. It was described as the *‘next logical step after the HSE indicator tool’* and was seen as a very useful way to involve and ‘tie-in’ the manager to the process. There were requests for the questionnaire tool to be part of a flexible ‘tool-kit’ offered to organisations which would include training, case studies, guidance and sample tools.

Participants also felt the management competency indicator tool would be useful in a performance management or performance appraisal context, in conjunction with feedback and follow-up support, or mentoring, for the manager. Participants were less positive about using the questionnaire tool in a selection context: only 32% of participants were positive about this particular use. That said, most participants felt that using it in an induction training course for new managers and employees would be a good way to embed the competencies in the organisational culture and promote the behaviours. The general consensus was that the questionnaire tool would be more likely to be used in a selection or performance management context if there were data on how the display of the ‘healthy’ behaviours was linked to productivity of the organisation, therefore making a case for return on investment.

### 3.2.3 Usability of the questionnaire tool: The user perspective

#### ***How easy was this questionnaire to answer?***

Of the 45 managers that answered this question, the vast majority of managers answered that it was 'easy' (53%) or 'very easy' (38%) to answer. In addition to this, the four stakeholders that had also answered the questionnaire, all found it either 'easy' or 'very easy' to answer. Of the managers that had answered 'easy' or 'very easy', eleven made additional comments. Five of these were that the questionnaire was too long (all managers were responding on the 112-item questionnaire), and six that it was thought provoking and encouraged reflection. One also commented that the process had been 'very enjoyable'.

Although no respondents answered that the questionnaire was 'difficult', 9% of managers responded the questionnaire was 'not very easy'. Comments were again that the questionnaire was too long, and also that it was sometimes difficult to reflect on their own behaviour.

#### ***Were there any items/competencies that were not relevant to your current role?***

79% of managers felt that all items or competencies included were relevant to their current role. 21% felt that there were some non-relevant items or competencies. All of the comments about non-relevance referred to the Phase One competency 'Friendly style' and were focused upon three items: 'Brings my team treats such as cakes', 'Socialise with the team' and 'Organise social events for the team'. Issues surrounded the feeling that socialising and bringing in food may not always be appropriate, and wasn't part of the organisational culture, therefore not expected in the particular role. Some also felt that although they would expect to socialise with the team, this wouldn't extend to organising social events. This perception is captured by the following comment '*Organises social events for the team – it just doesn't fit with our culture – there's no funds, so what we do together tends to be led by a member of the team not by myself.*'

Only one stakeholder felt that some items were not relevant to certain roles in the organisation. Their comment was that some of the questions would not work so well with managers who manage large groups of people directly (such as the head of an academic department). Examples of these items included 'Act as a mentor' (stating in large groups this might be assigned to another individual), 'Organise social events for the team', 'Brings my team treats such as cakes', and 'Regularly ask 'How are you?', all of which were said to be impractical with large groups.

#### ***Were there any gaps/exclusions from the questionnaire?***

85% of managers felt that there were no gaps or exclusions in the questionnaire. 15% replied that they felt there were some gaps or exclusions. Within this group, all but one of the comments fell under the overall theme of lack of context or opportunity for explanation. In the main, this was focused on the need to have open-ended questions or free-text areas in addition to the closed question format. One comment was that the ability to capture thoughts and feelings of staff was limited by the closed question format. Some managers also felt that context needed to be taken into account, highlighted by the following quotation: '*At the moment we are going through a huge process of organisational change, with many redundancies – this is probably reflected in the poor management results. We can't manage as well as we would want to at the moment.*'

Only one stakeholder felt there was a gap in the questionnaire, stating '*We work in a high risk industry and might like some more focus on HSE issues.*'

### **Was the questionnaire accurate in terms of identifying key management development areas for you?**

82% of managers felt that the questionnaire was accurate in identifying key management development areas. Many managers felt that the feedback from their staff was more positive than they had expected, that they were *'pleasantly surprised how supportive <the> staff were'*, finding the process *'motivating and encouraging'*. Interestingly, most comments were that the development areas raised confirmed existing thinking and mirrored the development areas highlighted in other forms of management development such as 360 degree feedback. A few comments were that although these were development areas that they were personally aware of, they hadn't realised their staff had noticed or saw them as a problem. Some comments were also that the development areas rang true, but weren't ones that they had identified previously: *'It makes sense now, but I wouldn't have spotted it myself'*.

Of the remaining managers, 9% felt that the questionnaire was not accurate in identifying key development areas, and 9% didn't know if it was accurate or not. Those that felt it was inaccurate focused upon issues of small sample size (meaning not all of their direct reports had responded), or of one particularly negative member of staff biasing the feedback and masking the real issues. Two comments were also that the staff providing feedback hadn't understood what the manager's job role actually was, highlighted in the following comment: *'Although some of the comments made sense, I think most were a function of the team not understanding what my role is'*.

Those that felt they 'Didn't know' about the accuracy of the key development areas identified commented those areas were a surprise. It wasn't that the managers disagreed with them, but felt they would need to seek further clarification from the team as to what the issue was, or if indeed there was an issue. An example of responses from this group follows. In this example, the tool had highlighted a manager's development area being that of employee training and development: *'It was not something I had thought of in terms of helping to develop my staff - I had actually just assumed they didn't want to be developed/progress and they were quite happy - so it is interesting to see. I need to go back and talk to them'*.

### **What would be the best format for the competency measurement questionnaire?**

Of the 45 managers that answered this question, 73% felt that 360 degree feedback would be the best format, and 27% that upward feedback would be most preferable. None responded that a self report format (with or without feedback) would be the best format.

Five of the six stakeholders felt that a 360 degree feedback format would be best for the questionnaire, to enable the perspectives of the manager, as well as informing all levels of management. One felt that upward feedback would be the most preferred format, but didn't state a reason. Despite the majority requesting 360 degree feedback, three of the six commented that a self report questionnaire would be useful for those undertaking unstructured management development, or where staff have requested confidentiality.

### 3.3 REFINED ‘MANAGEMENT COMPETENCIES FOR PREVENTING AND REDUCING STRESS AT WORK’ FRAMEWORK

#### 3.3.1 Analysis of factors

Using the procedures as described in section 2.5.2, EFA revealed a final pattern matrix of 67 items across four factors. The final pattern matrix is included in Appendix 3.0.

**Table 3.0** Analysis of Factors

<i>Factor</i>	<i>No. of items</i>	<i>Mean</i>	<i>SD</i>	<i>Alpha</i>
Factor One	17	64.80	13.62	.93
Factor Two	22	78.33	17.09	.93
Factor Three	12	27.47	16.81	.92
Factor Four	16	59.25	11.45	.90

Table 3.0 shows the analysis of each factor. The number of items in each factor ranged from 12 in Factor Three, to 22 in Factor Two. The alpha coefficients ranged from 0.90 to 0.93, in excess of the minimum of 0.70 recommended by Nunally (1967).

#### 3.3.2 Interpretation of Factors and sub-clusters

As described in section 2.5.3, two expert workshops, combined with independent observer and research team input, were used to name the factors, and define sub-clusters within each factor. The results of these processes are shown in Table 3.01.

**Table 3.01** Interpretation of Factors and sub-clusters

<i>Factor</i>	<i>Factor Name</i>	<i>Sub-clusters</i>
One	Respectful and Responsible: Managing emotions and having integrity	Integrity Managing Emotions Considerate approach
Two	Managing and communicating existing and future work	Proactive work management Problem solving Participative/empowering
Three	Reasoning/managing difficult situations	Managing conflict Use of organisational resources Taking responsibility for resolving issues
Four	Managing the individual within the team	Personally accessible Sociable Empathetic engagement

Each factor was separated into three sub-clusters, therefore creating a new structure of four competencies and 12 sub-competencies. This resulted in a refined ‘Management competencies for preventing and reducing stress at work’ framework. Table 3.02 shows this framework with descriptions for each sub-competency.

**Table 3.02** Refined ‘Management competencies for preventing and reducing stress at work’ (MCPARS) framework, including brief descriptions for each sub-competency

<i>Management Competency</i>	<i>Sub-competency</i>	<i>Description of sub-competency</i>
Respectful and Responsible: Managing emotions and having integrity	Integrity	Respectful and honest to employees
	Managing Emotions	Behaves consistently and calmly
	Considerate approach	Thoughtful in managing others and delegating
Managing and communicating existing and future work	Proactive work management	Monitors and reviews existing work, allowing future prioritisation and planning
	Problem solving	Deals with problems promptly, rationally and responsibly
	Participative/empowering	Listens and consults with team, provides direction, autonomy and development opportunities to individuals
Reasoning/managing difficult situations	Managing conflict	Deals with conflicts fairly and promptly
	Use of organisational resources	Seeks advice when necessary from managers, HR and occupational health
	Taking responsibility for resolving issues	Supportive and responsible approach to issues
Managing the individual within the team	Personally accessible	Available to talk to personally
	Sociable	Relaxed approach, such as socialising and using humour
	Empathetic engagement	Seeks to understand the individual in terms of their motivation, point of view and life outside work

### 3.4 REFINED 'STRESS MANAGEMENT COMPETENCY INDICATOR TOOL'

As described in section 2.5.4, following the statistical analysis on the data, and feedback from managers, stakeholders and employees, the final number of questions was reduced to 66. Table 3.03 shows the items comprising the resultant 'Stress management competency indicator tool' which would be used for an upward feedback questionnaire (i.e. for completion by direct reports about their line manager). All questions would be preceded by 'My manager'. The self report version (i.e. for completion by line managers about themselves) is shown in Appendix 3.1.

**Table 3.03** Items included in the refined 'Stress management competency indicator tool'

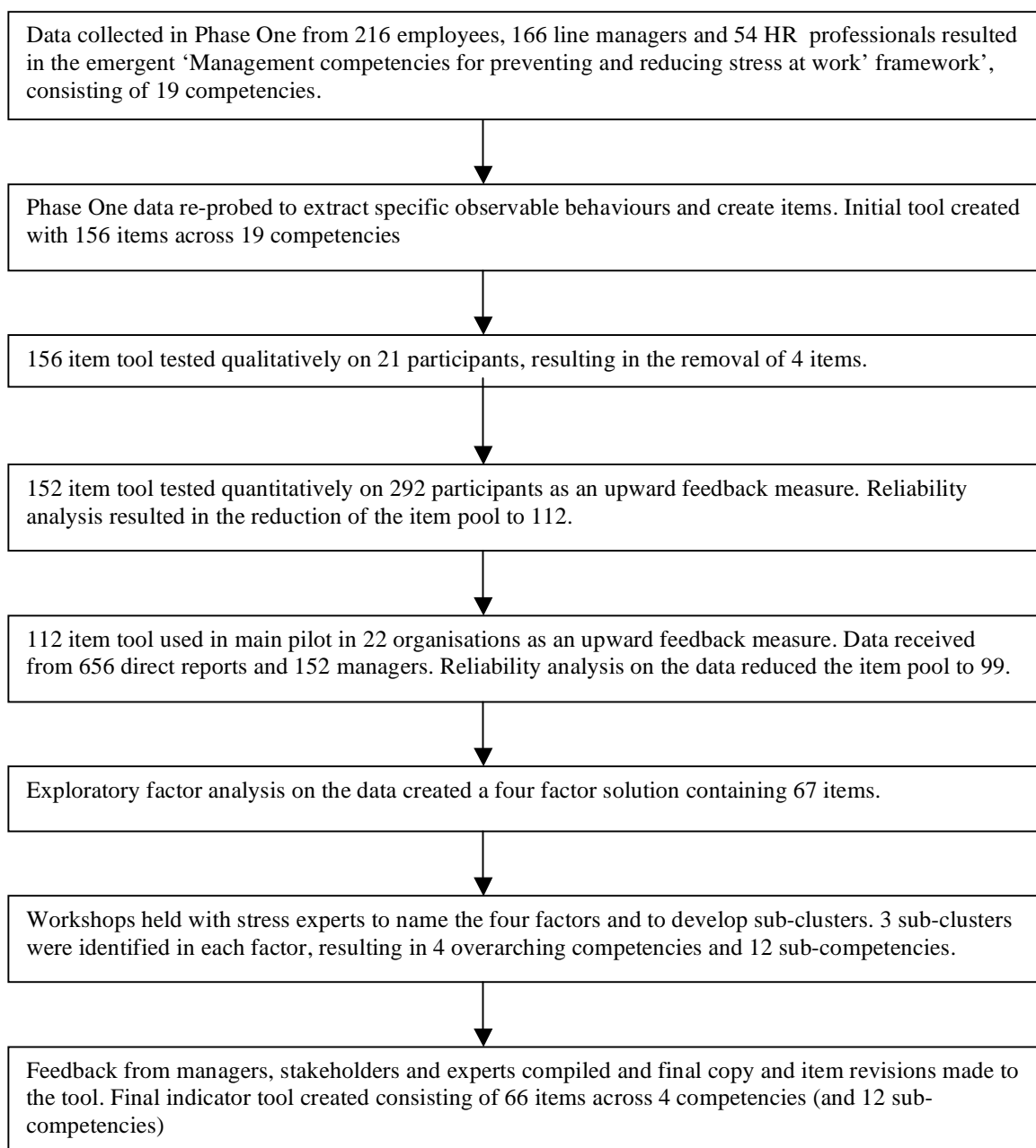
<i>Competency</i>	<i>Sub-competency</i>	<i>Items</i>
Respectful and responsible: Managing emotions and having integrity	Integrity	Is a good role model
		Says one thing, then does something different
		Treats me with respect
		Is honest
		Speaks about team members behind their backs
	Managing emotions	Is unpredictable in mood
		Acts calmly in pressured situations
		Passes on his/her stress to me
		Is consistent in his/her approach to managing
		Takes suggestions for improvement as a personal criticism
Managing and communicating existing and future work	Considerate approach	Panics about deadlines
		Makes short term demands rather than allowing me to plan my work
		Creates unrealistic deadlines for delivery of work
		Seems to give more negative than positive feedback
		Relies on other people to deal with problems
	Proactive work management	Imposes 'my way is the only way'
		Shows a lack of consideration for my worklife balance
		Communicates my job objectives to me clearly
		Develops action plans
		Monitors my workload on an ongoing basis
Problem solving	Encourages me to review how I organise my work	
	When necessary, will stop additional work being passed on to me	
	Works proactively	
	Sees projects/tasks through to delivery	
	Reviews processes to see if work can be improved	
Participative/empowering	Problem solving	Prioritises future workloads
		Is indecisive at decision making
	Participative/empowering	Deals rationally with problems
		Follows up problems on my behalf
		Deals with problems as soon as they arise
		Gives me the right level of job responsibility
		Correctly judges when to consult employees and when to make a decision
Participative/empowering	Keeps me informed of what is happening in the organisation	
	Acts as a mentor to me	
	Delegates work equally across the team	
	Helps me to develop in my role	
	Encourages participation from the whole team	
Participative/empowering	Provides regular team meetings	
	Gives me too little direction	

**Table 3.03** Items included in the refined ‘Stress management competency indicator tool’ continued

<i>Competency</i>	<i>Sub-competency</i>	<i>Items</i>
Reasoning/Managing difficult situations	Managing conflict	Acts as a mediator in conflict situations
		Acts to keep the peace rather than resolve conflict issues
		Deals with squabbles before they turn into arguments
		Deals objectively with employee conflicts
		Deals with employee conflicts head on
	Use of organisational resources Taking responsibility for resolving issues	Seeks advice from other managers when necessary
		Uses HR as a resource to help deal with problems
		Seeks help from occupational health when necessary
		Follows up conflicts after resolution
		Supports employees through incidents of abuse
Managing the individual within the team	Personally accessible	Doesn't address bullying
		Makes it clear he/she will take ultimate responsibility if things go wrong
		Prefers to speak to me personally than use e-mail
		Provides regular opportunities to speak one to one
		Returns my calls/e-mails promptly
	Sociable	Is available to talk to when needed
		Brings in treats
		Socialises with the team
		Is willing to have a laugh at work
		Encourages my input in discussions
Empathetic engagement	Listens to me when I ask for help	
	Makes an effort to find out what motivates me at work	
	Tries to see things from my point of view	
	Takes an interest in my life outside work	
	Regularly asks ‘how are you?’	
	Treats me with equal importance to the rest of the team	
	Assumes, rather than checks, I am OK	

Note: some of the questions are negatively worded. The scores given on these items would be reversed before calculating overall scores.

**The following flow diagram is intended summarise the processes involved in creating the ‘Stress management competency indicator tool’.**





### 3.5 RESULTS OF MAPPING THE ‘MANAGEMENT COMPETENCIES FOR PREVENTING AND REDUCING STRESS AT WORK’ FRAMEWORK AND ‘STRESS MANAGEMENT COMPETENCY INDICATOR TOOL’ ONTO PUBLISHED FRAMEWORKS AND METRICS

#### 3.5.1 Mapping the refined ‘Management competencies for preventing and reducing stress at work’ framework onto the HSE Management Standards

The refined framework was mapped onto the HSE Management Standards using the procedure described in section 2.6.

**Table 3.04 Management competencies for preventing and reducing stress at work (MCPARS) framework mapped onto HSE Management Standards**

<i>Factor</i>	<i>Competency</i>	<i>Management Standard</i>
One	Respectful and responsible: managing emotions and having integrity	Demands Control Support Relationships
Two	Managing and communicating existing and future work	Demands Control Support Role
Three	Reasoning/managing difficult situations	Support Relationships
Four	Managing the individual within the team	Control Support Relationships

**Table 3.05** Sub-competencies for preventing and reducing stress at work (MCPARS) framework mapped onto HSE Management Standards

<i>MCPARS sub-competency (factor/competency number given in brackets)</i>	<i>Management Standard</i>	<i>Definition of Management Standard</i>
Considerate approach (F1) Proactive work management (F2) Problem Solving (F2) Participative/empowering (F2)	Demands	Includes issues like workload, work patterns and the work environment
Considerate approach (F1) Participative/Empowering (F2) Empathetic engagement (F4)	Control	How much say the person has in the way they do their work
Considerate approach (F1) Proactive work management (F2) Problem solving (F2) Use of organisational resources (F3) Personally accessible (F4) Empathetic engagement (F4)	Support	Includes the encouragement, sponsorship and resources provided by the organisation, line management and colleagues
Integrity (F1) Managing Emotions (F1) Considerate Approach (F1) Managing Conflict (F3) Taking responsibility for resolving issues (F3) Sociable (F4) Empathetic engagement (F4)	Relationships	Includes promoting positive working to avoid conflict and dealing with unacceptable behaviour
Proactive work management (F2)	Role	Whether people understand their role within the organisation and whether the organisation ensures that the person does not have conflicting roles
-	Change	How organisational change is managed and communicated in the organisation

All of the four main competencies could be mapped onto the Management Standard areas, however none of the competencies (or sub-competencies) could be directly linked to the Management Standard areas of 'Change'. Although it is appreciated that many of the competencies/sub-competencies, and therefore management behaviours, would be beneficial during times of change, there were no behaviours that were specific to this context. It is interesting that all of the four factors and five of the 12 sub-competencies mapped onto more than one Management Standard area, with two of the competencies ('Respectful and responsible: managing emotions and having integrity' and 'Managing and communicating existing and future work'), and the sub-competency of 'Considerate approach' mapping onto four of the six Management Standard areas ('Demands', 'Control', 'Support' and 'Relationships'). This finding is consistent with the results of the written exercises reported in Phase One of the research (see Yarker et al., 2007), which showed considerable overlap between management competencies and the HSE management standards areas.

Three of the competencies, and 11 of the 12 sub-competencies could be mapped onto the two Management Standard areas of 'Support' and 'Relationships' suggesting that these could be key areas in which the management behaviours for preventing and reducing stress at work will be effective.

### 3.5.2 Mapping the refined ‘Management competencies for preventing and reducing stress at work’ framework onto published management frameworks and metrics

Following the literature review described in section 1.4.2, 12 published management/leadership competency frameworks and validated indicator metrics were identified. In order to compare the sub-competencies identified within the refined ‘Management competencies for preventing and reducing stress at work’ framework (and measured by the refined ‘Stress management competency indicator tool’) with those highlighted by these general management frameworks, two mapping exercises were conducted. Mapping was conducted at the sub-competency level to enable fine-grained analysis. The first mapping involved five transformational leadership frameworks: the Multifactor Leadership Questionnaire (MLQ-5X, Avolio, Bass & Jung, 1999); the Leader Behaviour Scale (LBS, Podsakoff, Mackenzie, Moorman, & Fetter, 1990); the Global Transformational Leadership Scale (GTL, Carless, Wearing & Mann, 2000); the TLQ (Public), Alimo-Metcalfe & Alban-Metcalfe, 2005; and the TLQ (Private), Alimo-Metcalfe & Alban-Metcalfe, 2001. The summary of this exercise is shown in table 3.06 below. The second mapping exercise used seven (non-transformational) management frameworks and metrics namely: the Leader Behaviour Description Questionnaire (LBDQ, Stogdill, 1963); the Ethical Leadership Scale (ELS, Brown, Trevino, & Harrison, 2005); the Survey of Management Practices (SMP, Wilson & Wilson, 1991); the Great 8 competency framework (Bartram, 2002); the Supervisor Practices Instrument (SPI, Gilbreath & Benson, 2004); the Inspirational Leadership scale developed by the DTI (ILS, Garrett & Frank, 2005); and a scale measuring Leader-Member Exchange (LMX-7, Graen & Uhl-Bien, 1995). A summary of this second mapping exercise is shown in table 3.07 below. For the full results of both mapping exercises, please refer to Appendix 3.2.

**Table 3.06** Mapping of refined Management sub-competencies onto five transformational leadership frameworks

<i>MCPARS competency</i>	<i>MCPARS sub-competency</i>	<i>TLQ (Pub)</i>	<i>TLQ (Priv)</i>	<i>MLQ 5X</i>	<i>LBS</i>	<i>GTL</i>
Respectful and Responsible: Managing emotions and having integrity	Integrity	✓	✓	✓	✓	✓
	Managing Emotions	✓	✓	✗	✗	✗
	Considerate Approach	✓	✓	✓	✓	✓
Managing and Communicating existing and future work	Proactive work management	✓	✓	✓	✓	✓
	Problem Solving	✓	✓	✓	✗	✗
	Participative/empowering	✓	✓	✓	✓	✓
Reasoning/ Managing difficult situations	Managing Conflict	✗	✗	✗	✗	✗
	Use of organisational resources	✓	✓	✗	✗	✗
	Taking responsibility for resolving issues	✗	✗	✗	✗	✗
Managing the individual within the team	Personally accessible	✓	✓	✓	✗	✗
	Sociable	✗	✗	✗	✗	✗
	Empathetic engagement	✓	✓	✓	✓	✓

Five of the 12 sub-competencies ('Integrity', 'Considerate approach', 'Proactive work management', 'Participative/empowering', and 'Empathetic engagement') appear in all five of the transformational leadership frameworks. Three of the sub-competencies ('Managing Conflict', 'Taking responsibility for resolving issues' and 'Sociable') do not appear in any of the five transformational leadership frameworks. It is interesting to note however the internal differences across the five measures. Although apparently measuring the same overall construct of Transformational Leadership, both TLQ scales (Alimo-Metcalfe & Alban-Metcalfe, 2001, 2004) appear to more closely map onto the 'Management competencies for preventing and reducing stress' framework, where nine of the 12 sub-competencies are included, than the other three frameworks, in particular the LBS (Podsakoff et al., 1990) and the GTL (Carless et al., 2000), where only five of the 12 sub-competencies are represented.

Overall, the competencies of 'Respectful and Responsible: Managing emotions and having integrity' and 'Managing and communicating existing and future work' map more closely onto the transformational model of leadership than those of 'Reasoning/Managing difficult situations' and 'Managing the individual within the team'.

**Table 3.07** Mapping of refined Management sub-competencies onto seven other management frameworks and metrics

<i>MCPARS sub-competency</i>	<i>LBDQ</i>	<i>Great 8</i>	<i>SMP</i>	<i>ELS</i>	<i>ILS</i>	<i>LMX-7</i>	<i>SPI</i>
Integrity	✓	✓	✓	✓	✓	✗	✓
Managing Emotions	✗	✓	✗	✗	✗	✗	✓
Considerate Approach	✓	✓	✓	✓	✗	✓	✓
Proactive work management	✓	✓	✓	✓	✓	✓	✓
Problem Solving	✓	✓	✗	✗	✓	✓	✓
Participative/empowering	✓	✓	✓	✓	✓	✓	✓
Managing Conflict	✗	✗	✗	✓	✗	✗	✓
Use of organisational resources	✗	✓	✗	✗	✗	✗	✗
Taking responsibility for resolving issues	✗	✓	✗	✗	✗	✓	✓
Personally accessible	✓	✓	✓	✗	✓	✗	✓
Sociable	✓	✓	✓	✗	✓	✗	✓
Empathetic engagement	✓	✗	✓	✓	✓	✓	✓

When comparing the refined 'Management competencies for preventing and reducing stress', to the seven other commonly used management frameworks and metrics, the resultant exercise shows a more mixed picture. All of the sub-competencies appeared in at least one of the frameworks, but no framework represented all of the sub-competencies. Overall, the competency of 'Reasoning/Managing difficult situations' is the least well represented across the frameworks, perhaps not surprisingly due to the focus on particular, rather than everyday, events or situations.

The Supervisor Practices Instrument (Gilbreath and Benson, 2004) is the closest match to the 'Management competencies for preventing and reducing stress', with only one of the sub-competencies ('Use of organisational resources') not being represented. Of the 12 management frameworks reviewed, as discussed in Section 1.2.1, this particular scale is the only scale developed on a well-being model rather than having more traditional performance-based objectives. The Great 8 competency framework (Bartram, 2002) was also found to map strongly onto the refined 'management competencies for preventing and reducing stress', with two sub-competencies ('Managing conflict' and 'Empathetic engagement') not being represented.

Both the LBDQ (Stogdill, 1963) and the Inspirational Leadership Scale (Garrett & Frank, 2005), strongly mapped onto two of the four competencies: ‘Managing and communicating existing and future work’ and ‘Managing the individual within the team’, but not so strongly onto the two competencies of ‘Respectful and responsible: managing emotions and having integrity’ and ‘Reasoning/managing difficult situations’. Theoretically, ‘Managing and communicating existing and future work’ could be seen to relate to task-based behaviour and ‘Managing the individual with the team’ to relationship-based behaviour more clearly than the other two competencies, which may explain the LBDQ results (see Section 1.2.1 for details of the task-/relationship-based model).

Overall, these mapping results suggest that the refined ‘Management competencies for preventing and reducing stress at work’ framework developed in this research does not equate directly to one particular theoretical position or general management framework.

## 3.6 CHAPTER SUMMARY

### 3.6.1 Usability summary

- **Stakeholders and workshop participants were asked ‘In what way would the framework of ‘Management competencies for preventing and reducing stress at work’ fit into your existing HR/H&S policies and processes?’** Both groups felt that the framework could be used: to review and further develop policies, or as an appendix to existing policies; and also in a leadership development/training context, to dovetail into existing frameworks, enable the development of leadership programmes, or as a guiding structure or checklist in training. Workshop participants also supported the competency framework being used on a more global basis to integrate with national training programmes and frameworks.
- **Stakeholders and workshop participants were asked ‘How do you see the questionnaire tool to measure these competencies fitting into your existing HR/H&S policies and processes?’** Both groups saw a dual use for the questionnaire tool: firstly in a stress management context, to provide information at the local level following an organisational risk assessment or for use in specific scenarios; and secondly, in a leadership development/performance appraisal context. In the latter context it was suggested that it would be best used in conjunction with follow up support or coaching mentoring, or as part of an overall module or programme, rather than as a stand-alone exercise.
- **91%** of managers who responded, said the questionnaire tool was ‘easy’ or ‘very easy’ to answer.
- **76%** of managers who responded felt that all items/competencies in the questionnaire tool were relevant. Of the 21% that felt there were some irrelevant items/competencies, all referred to the competency of ‘Friendly style’.
- **85%** of managers who responded felt that there were no gaps or exclusions in the questionnaire. Of the 15% that felt that there were, the majority of comments focused upon the lack of context or opportunity for explanation allowed with the closed format questionnaire.
- **82%** of managers who responded felt that the questionnaire was accurate in terms of identifying key management development areas.

### 3.6.2 Refined framework and indicator tool summary

- **Principal components analysis identified four factors.** These were named by workshop participants/independent observer as:
  - Respectful and responsible: managing emotions and having integrity
  - Managing and communicating existing and future work
  - Reasoning/managing difficult situations
  - Managing the individual within the team
  
- **Each factor was then grouped into three sub-clusters, producing a refined competency framework of four competencies and 12 sub-clusters.**
  
- **Following analysis on the data, and feedback from managers, stakeholders and employees, the final number of questions in the ‘Stress management competency indicator tool’ was 66.**

### 3.6.3 Mapping summary

- **Mapping the refined ‘Management competencies for preventing and reducing stress at work’ framework** onto the HSE Management Standards revealed all of the competencies and the sub-competencies could be mapped on the Management Standard areas, but none referred directly to the Management Standard area of ‘Change’. All of the competencies, and five of the 12 sub-competencies mapped onto more than one Management Standard area. Three of the competencies could be mapped onto the Management Standard areas of ‘Support’ and ‘Relationships’.
  
- **Mapping the refined ‘Management competencies for preventing and reducing stress at work’ framework onto five transformational leadership frameworks** (TLQ Public, TLQ Private, MLQ 5X, GTL and LBS) demonstrated that three of the sub-competencies (‘Managing conflict’, ‘Taking responsibility for resolving issues’ and ‘Sociable’), were not represented by any of the frameworks. Conversely, five of sub-competencies were included in all five transformational leadership frameworks. The two TLQ frameworks mapped most closely onto the refined ‘Management competencies for preventing and reducing stress’ framework. Overall, two of the four competencies: ‘Respectful and Responsible: Managing emotions and having integrity’, and ‘Managing and communicating existing and future work’ mapped more closely onto a transformational model of leadership than the other two competencies.
  
- **Mapping the refined ‘Management competencies for preventing and reducing stress at work’ framework onto seven management frameworks** demonstrated a more mixed picture. Each of the competencies appeared in at least one of the frameworks, but no framework contained all of the sub-competencies. The closest match to the ‘Management competencies for preventing and reducing stress at work’ was the Supervisor Practices Instrument, with only one sub-competency (‘use of organisational resources’) not being represented. Interesting this was the only framework developed with the intention of measuring behaviours that impact on employee well-being. Overall, the competency ‘Reasoning/managing difficult situations’ was the least well represented across all the management frameworks.

## 4 DISCUSSION AND CONCLUSION

This section provides a summary of the research. It reflects upon how the research has achieved its objectives and considers the strengths and potential limitations of the approach adopted.

The objectives of the second phase of the research programme on ‘Management competencies for preventing and reducing stress’ were threefold:

- To **examine the usability, range of uses for and best approaches to using** the management competency framework developed in Phase One, by conducting a quantitative pilot and gathering qualitative evidence from Human Resources/Occupational Health/Health and Safety practitioners, and end users (line managers) on organisational needs and potential uses of the framework.
- To **validate, refine and revise the competency framework** based on evidence from three sources: i) review of qualitative evidence from a pilot exercise, ii) reliability analysis and exploratory factor analysis and iii) literature review. A series of workshops will be conducted with stress management experts (including HR/OH/H&S practitioners, consultants and academics working within the field of stress management) to further refine the framework.
- To **design a stress management competency indicator tool** that measures the degree to which an individual exhibits Management competencies for preventing and reducing stress at work.

In addition, the current study compared the refined ‘Management competencies for preventing and reducing stress at work’ framework, and the emergent ‘Stress management competency indicator tool’, to the HSE Management Standards and to 12 existing management/leadership frameworks in order to identify the commonalities and discrete components related to the effective management of stress at work.

Below, the research is discussed in light of each objective and the results of the mapping is discussed in light of the literature review conducted in Phase One, and updated in the present phase of this research (see Chapter One).

This section covers:

4.1 Examining the usability, range of uses for, and best approaches to using the ‘Management competencies for preventing and reducing stress at work’ and the ‘Stress management competency indicator tool’

4.2 Validating, refining and revising the competency framework and developing a ‘stress management competency indicator tool’

4.3 Validating the refined framework and emergent indicator tool through literature review and mapping onto other frameworks

4.4 Strengths and potential bias in the research

#### **4.1 EXAMINING THE USABILITY, RANGE OF USES FOR, AND BEST APPROACHES TO USING THE ‘MANAGEMENT COMPETENCIES FOR PREVENTING AND REDUCING STRESS AT WORK’ FRAMEWORK AND THE ‘STRESS MANAGEMENT COMPETENCY INDICATOR TOOL’**

This research aimed to provide line managers, and Human Resource, Occupational Health and Health and Safety professionals with an additional framework and tool with which to tackle work-related stress. In order to ensure that the outcomes of this research were tailored to the user, a usability analysis was conducted. Usability interviews were carried out with 47 managers and 6 stakeholders. Information was also gathered at workshops with 38 Human Resource, Occupational Health, and Health and Safety professionals, and independent stress experts. The main findings relating to this aim of the research were:

- When stakeholders and workshop participants were asked how they felt the ‘Management competencies for preventing and reducing stress at work’ would fit into their existing HR/H&S policies and processes, their responses fell into two themes. Firstly, it was felt the framework could be used in a stress management context; to review and develop policies, to inform the development of action plans around stress management at an organisational level, and to integrate with existing policies. Secondly, it was felt that the framework would be of use in a leadership development/training context: to dovetail into existing frameworks and programmes, to develop new training programmes, or as a guiding structure or checklist in training.
- When stakeholders and workshop participants were asked how they felt the ‘Stress management competency indicator tool’ would fit into their existing HR/H&S policies and processes, both groups saw a dual use for the questionnaire tool. Firstly, it was felt that the tool could be used in a stress management context, as a *‘next logical step after the HSE indicator tool’* by providing information at the local level. It was suggested that this would help ‘tie-in’ managers to the process, and be useful in specific scenarios such as where a particular line manager was seeking help with problems that might be stress related. There were requests for the tool to be part of a flexible ‘tool kit’ offered to organisations that would include training, case studies, guidance and sample tools. Secondly, the groups saw the tool being useful in a more general management development or appraisal context. In this context, it was suggested the tool would be best used in conjunction with follow up support or coaching, or as part of an overall development programme, rather than as a stand-alone exercise. There was less support for the use of the tool in a selection context, although the groups did see its use in an induction training course in order to promote the desired behaviours, and embed the competencies in the organisational culture.
- Information was also gathered from managers, providing a user perspective on the ‘Stress management competency indicator tool’ in terms of its ease of use, its relevance to the individual’s role, accuracy of identifying key development areas, and best use of the tool. The findings were very positive:
  - 91% of managers who responded said the tool was ‘easy’ or ‘very easy’ to answer.
  - 76% of managers who responded felt that all the items in the tool were relevant. Of the 21% that felt there were irrelevancies, all referred to a group of items under the competency ‘Friendly style’.
  - 85% of managers who responded felt that there were no gaps or exclusions in the tool. Of the 15% that felt there were, the majority of comments focused on the closed format questionnaire and a wish for additional free-text responses.
  - 82% of managers who responded felt that the tool was accurate in terms of identifying key management development areas.



- 73% of managers who responded felt that a 360 degree feedback questionnaire would be the best format for the tool. 27% felt that upward feedback would be more preferable. Five of the six stakeholders who responded also felt that 360 degree feedback would be the best format.

#### **4.2 VALIDATING, REFINING AND REVISING THE COMPETENCY FRAMEWORK AND DEVELOPING A STRESS MANAGEMENT COMPETENCY INDICATOR TOOL**

In order both to validate, refine and revise the ‘Management competencies for preventing and reducing stress at work’ framework, and develop a ‘Stress management competency indicator tool’, evidence was collected from the following sources: qualitative and quantitative data from piloting the ‘Stress management competency indicator tool’; a literature review and mapping exercise; and workshops with experts. This section summarises the evidence collected from the pilot and the workshops. Section 4.3 summarises the evidence relating to the literature review and mapping exercise.

- In order to construct a draft ‘Stress management competency indicator tool’, behavioural statements were extracted from the Phase One data, and tested both qualitatively (n=21) and quantitatively (n=292). Following initial reliability analysis a pilot questionnaire was produced, consisting of 112 items.
- The pilot questionnaire was used as an upward feedback measure in 22 organisations. Participants included direct reports and managers working within the five HSE priority areas, along with one ‘other’ organisation. Managers responded with their perceptions of their own behaviour and direct reports with their perceptions of their manager’s behaviour. The sample included 152 managers and 656 direct reports. Direct report data was analysed using reliability analysis and exploratory factor analysis to establish the psychometric properties of the indicator tool, and provide information on the factorial structure of the competency framework.
- Principal Components Analysis of the pilot data, using oblique rotation, identified four factors. To further validate this solution, the workshop participants explored the framework, named each factor and identified sub-clusters. The factors were named as:
  - Respectful and responsible: managing emotions and having integrity
  - Managing and communicating existing and future work
  - Reasoning/managing difficult situations
  - Managing the individual within the team
- As a result of the validation exercise with workshop participants, and an independent observer, each factor was grouped into three sub-clusters, providing a refined competency framework of four competencies and 12 sub-competencies. Following analysis of the data, and feedback from managers, stakeholders and experts, the final number of questions in the ‘Stress management competency indicator tool’ was 66.

### **4.3 VALIDATING THE REFINED FRAMEWORK AND EMERGENT INDICATOR TOOL THROUGH LITERATURE REVIEW AND MAPPING ONTO OTHER FRAMEWORKS**

- A review was conducted of the theories of management and leadership most frequently referred to in the literature, and particularly those used in health and well-being research, as a prelude to exploring the fit between the emergent ‘Stress management competency indicator tool’ and existing measures of leadership and management. This focused on seven theories, namely: Behavioural approach (Task- and relationship- focused behaviour), Transformational and Transactional leader behaviour, Leader-member exchange, Situational leadership, Ethical leadership, Authentic leadership and Trust in management.
  
- The tools available to measure management behaviour, both academically and in practice, were reviewed in light of the steps required to develop a psychometrically sound measure as defined by Rust and Golombok (1999, see section 1.4.1 for details). This exercise highlighted that, while there are a number of widely used measures of management and leadership, the psychometric quality and practical application of the measures varies greatly. This review also identified a number of limitations to the measures in terms of their suitability for measuring behaviour relevant to preventing and reducing stress at work, in particular:
  - Much research draws from a-priori models of leadership which may fail to capture management behaviours specific to well-being of employees. Of those measures reviewed, only the Supervisor Practices Instrument (SPI, Gilbreath & Benson, 1999) was developed specifically with this aim.
  - This measure, the SPI, is a conglomerative measure of a variety of supervisor behaviours, therefore is limited in its ability to identify specific behavioural indicators or themes. Moreover, it is a US designed model. The work conducted by Alimo-Metcalfe and Alban-Metcalfe (2000) on the TLQ has suggested that the UK model of leadership may differ from that of the US.
  - The link between management and health outcomes may be underestimated due to the use of measures that fail to capture all the relevant behaviours, such as those identified in Phase One of this research.
  - The majority of research and measures, because they are primarily developed in the United States and Scandinavia, may not capture all the constructs that are relevant in the UK context.
  - On a practical note, few measures are available to managers as a self assessment tool that provides feedback.
  
- In order to compare the sub-competencies identified within the refined framework and indicator tool with those highlighted by the frameworks explored in the above review, two mapping exercises were undertaken. The first focused on five transformational leadership frameworks, and the second on seven other management frameworks, with results as follows:

- Mapping the refined ‘Management competencies for preventing and reducing stress at work’ framework onto the five transformational frameworks (TLQ, Public and Private sector versions (Alimo-Metcalfe & Alban-Metcalfe, 2001, 2005), MLQ-5X (Avolio et al., 1999), GTL (Carless et al., 2000) and LBS (Podsakoff et al., 1990)) highlighted the following:
  - Three of the sub-competencies (‘Managing conflict’, ‘Taking responsibility for resolving issues’ and ‘Sociable’) were not included in any of the transformational leadership frameworks.
  - The two TLQ frameworks, both developed in the UK, mapped most closely onto the refined framework.
  - Two of the four competencies: ‘Respectful and Responsible: Managing emotions and having integrity’, and ‘Managing and communicating existing and future work’ mapped more closely onto models of transformational leadership than the other two competencies
  
- Mapping the refined ‘Management competencies for preventing and reducing stress at work’ framework onto seven other management frameworks (LBDQ (Stogdill, 1963), ELS (Brown et al., 2005), SMP (Wilson & Wilson, 1991), Great 8 (Bartram, 2002), SPI (Gilbreath & Benson, 2004), ILS (Garrett & Frank, 2005) and LMX-7 (Graen & Uhl-Bien, 1995)) highlighted the following:
  - Each of the sub-competencies appeared in at least one of the other frameworks, but no framework included all the sub-competencies.
  - The Supervisor Practices Instrument (SPI, Gilbreath & Benson, 2004) represented the closest match to the refined framework, with only one sub-competency (‘Use of organisational resources’) not being included.
  - Overall, the competency ‘Reasoning/managing difficult situations’ was the least well represented across the frameworks.
  
- The above shows that there is an overlap between the general management behaviours included in existing management and leadership frameworks and the behaviours identified in the ‘Management competencies for preventing and reducing stress at work’ research. This demonstrates that the integration of the framework into existing people management frameworks is a real possibility, as was also highlighted in the qualitative data gathered in the usability study. Although there is an overlap, no single existing measure includes all the sub-competencies identified in the ‘Management competencies for preventing and reducing stress at work’ research, reinforcing the importance of this approach, and allowing an identification of gaps in existing frameworks that may prove vital for tackling work stress.
  
- In order to explore the implications of the refinement of the ‘Management competencies for preventing and reducing stress at work’ framework for implementation of the HSE Management Standards a further mapping exercise was conducted between the new version of the framework and the Standards categories. This exercise revealed that all of the competencies and sub-competencies in the revised framework could be mapped onto the Management Standard areas. None of the competencies or sub-competencies referred directly to the Management Standard area of ‘Change’: however, many of them would be beneficial during times of change. In a finding consistent with the results of the written exercises reported in Phase One of the research (see Yarker et al., 2007), there was considerable overlap between the competencies and the HSE Management Standard areas, with all four competencies mapping onto more than one Management Standard area.

#### 4.4 STRENGTHS AND POTENTIAL BIAS IN THE RESEARCH

This section outlines the strengths and potential bias in the research. Where appropriate, it details the steps taken to reduce bias.

- This phase of the research used the framework that emerged from the first phase of this research, and therefore adopts a grounded theory methodology. This use of grounded theory is viewed as advantageous in the development of a sound measure, and is consonant with the views of researchers such as Alimo-Metcalfe and Alban-Metcalfe (2001). It is recognised that many other measures of management and leadership (e.g. MLQ, Bass et al. 1999) were not developed using this approach
  
- The dual focus on a) collecting usability data and opinions from stakeholders (HR, Occupational Health, and Health and Safety), and stress experts, and b) gathering quantitative evidence, has allowed the development of a refined framework and an indicator tool that we can be confident will have practical uses within organisations. The strategy of consultation with organisations and experts has also allowed the dissemination of the research to a wider audience, and gained buy-in from a diverse population.
  
- The size and the breadth of the sample involved in both phases of this research to date represent a key strength of the research. 382 participants were interviewed for Phase One of the research, and 656 direct report responses included in the quantitative stage of this current phase. Further, in both stages, data was collected from three sources; managers (or users), employees (direct reports) and Occupational Health, Human Resources and Health and Safety professionals (stakeholders). In addition, this phase of the research also gathered evidence and opinions from experts in the area of stress and stress management. Both phases also collected data from five sectors (Education, Healthcare, Local Government, Central Government and Finance), and included 35 organisations. This compares favourably to most of the research, including that on existing measures of management and leadership, reviewed in this study. Furthermore, this combined qualitative and quantitative approach, together with the multiple perspectives considered in the research, enables us to be confident that the indicator tool provides comprehensive coverage of the domain.
  
- Studies such as Alimo-Metcalfe and Alban-Metcalfe (2001) have found differences in behaviours of managers in the public and private sector, and also suggested that there may be differences by managerial level and gender. Although this study included organisations from both the public and the private sector, and seems to include a good demographic cross-section, the scope of the research and the size of the sample did not allow the differences between public vs. private sector, or other demographic groups to be explored. However, it is not expected that the results would be confounded by the omission of this kind of analysis as the research in Phase One (Yarker et al., 2007) demonstrated little difference by sector or by gender. This research, following the methodology and rationale taken in Phase One, focused on middle, rather than senior managers, therefore we do not have access to data in our research on any differences by managerial level.

- The quantitative data collected in this phase of the research relied solely on employee ratings and therefore there is a need to be conscious of the possible bias introduced by single source data, such as halo effects. However, the original model developed in Phase One was based on both manager and employee interviews, and found little differences between the two groups. Further, the use of employee ratings is consistent with most leadership research. It is widely agreed that the most accurate source of management appraisal is from others, e.g. from employees (Alimo-Metcalfe, 2000), in preference to the use of self-ratings, which have been found to have a number of limitations. Self-ratings can be impacted by biases such as impression management, defensiveness in self perception, inclination to maintain a positive self image and a need to maintain self esteem.
  
- Conger (1998) found that, in interviews, when employees were asked about their manager, they answered in a socially desirable fashion in order to protect themselves. In this study, every effort was taken to ensure that the anonymity and confidentiality of employees was protected: for example, the minimum number of direct reports needed, and feeding back group data rather than individual data. It must still be recognised that employees could have answered more leniently in order to protect themselves, but research suggests (e.g. Scullen, Mount & Judge, 2003) that, because employees were rating their managers for purely developmental or research purposes, the ratings are likely to be more accurate than if ratings had been for administrative purposes (such as pay, or promotion decisions). It should also be noted that the study relied on cross sectional data, in that employee ratings were only collected at one time point, therefore it was not possible to look at the variance on ratings of the same supervisor, and therefore control for environmental or situational bias.
  
- This phase followed the methodology taken in Cousins et al. (2004) for the development of the HSE Indicator tool. Although the HSE indicator is a well respected diagnostic measure, if the methodology is compared with the guidelines suggested by Rust and Golombok (1999), as reviewed in section 1.4.1, further analysis is required to complete the development of a psychometric tool. The two major omissions from the development of the tool have been in the full assessment of reliability and validity:
  - Reliability: The reliability of a measure concerns how accurate, precise and error-free the measure is. Although reliability of the 'stress management competency indicator tool' has been tested by looking at the internal consistency of the measure (see section 2.5.2), its test-retest reliability looking at the measure's stability over time has not been calculated, due to the focus on capturing data at one time point.
  
  - Validity: Rust and Golombok (1999) describe four main types of validity in order to see if the measure is measuring what it claims to measure, namely: face validity, content validity, construct validity and criterion related validity. This methodology has allowed the assessment of face validity (looking at a measure to see if the items appear to be relevant to the domain being tested), through the initial qualitative testing of the measure, the usability study with managers, direct reports and stakeholders, and the input of stress experts at the two workshops. The study has also allowed the assessment of content validity (the appropriateness of the content of the measure), through the qualitative stages of the research, the judgement by experts at the workshops and, most importantly, the reliability analysis and exploratory factor analysis carried out in the quantitative part to the study. Although the mapping exercise both with the HSE Management Standards and the 12 measures of management/leadership is a form of assessment of construct validity (referring to the traits or attributes measures

are designed to measure), it does not represent an adequate assessment. In order for a rigorous assessment of construct validity to be made, data on convergent validity and divergent validity would need to be gathered statistically by looking for correlations of the emergent 'Stress management competency indicator tool' with different methods of measuring the same construct, and measures of different constructs. The key omission in terms of validity testing, however, has been in the lack of data gathered on the criterion related validity of the tool (the relationship between scores on the 'Stress management competency indicator tool' and external criteria such as well-being, absenteeism or turnover intentions). As this research scope did not allow the collection of any outcome data, no criterion related validity could be established.

- Therefore, although this phase of the research enabled the refinement of the framework and the creation of a 'Stress management competency indicator tool', further steps to fully assess reliability and validity are required to produce a psychometrically sound measure. Perhaps more importantly, there is need to establish the importance and impact of emergent manager competencies/behaviours on relevant outcomes (such as employee well-being and experience of psychosocial hazards). Further research is needed to take the 'Stress management competency indicator tool' through these final stages of development.
- The study has also been unable to take into account the impact of individual differences due to the lack of outcome data (such as employee well-being and job performance). The increasing body of literature on Leader Member Exchange (LMX), strongly suggests that high-quality LMX is associated with a lower levels of employee strain and that high quality LMX may help to 'buffer' the detrimental impact of other work-related stressors on employee well-being and job performance. Further research is therefore needed to explore the complexity of individual interactions and the extent to which they moderate the impact of managerial behaviour.

## 5 THE WAY FORWARD

In this section we examine the implications of the research for the following four audiences: Policy Makers, Research, Employers and Line Managers.

### 5.1 POLICY MAKERS

In terms of UK Government policy on Health and Safety, particularly policy relating to the HSE Management Standards, the research provides an additional approach for employers to tackle stress in the workplace and implement the Management Standards, together with mechanisms to help them do so. Effective promulgation of the refined 'Management competencies for preventing and reducing stress at work' framework and 'Stress management competency indicator tool' (and the mapping of the competencies onto the six HSE Management Standard areas) will be needed in order to ensure that the benefits of supporting this research are fully realised.

The usability analysis conducted in this study provides insights into the range of uses to which the framework and the measure can be put. By clarifying the behaviours needed to manage stress, both the refined framework and the indicator tool allow the development of interventions to facilitate behaviour change, ensuring managers can manage employee stress effectively and, thereby, implement the HSE management standards. The usability data suggests that such interventions are seen to be useful not just in terms of stress management and ensuring systems are in place 'at the local level', but also for integrating stress management into management and leadership development processes and other areas such as appraisal, coaching, induction and support of managers. However, the evidence from this study also suggested that for this approach to be truly effective, there remains a need for the HSE to offer more guidance, in terms of a flexible tool kit, providing training materials, case studies, guidance and sample tools.

Moving forward, the research data suggests that there will be an increasing need to understand the best ways of integrating the research findings into organisations' existing HR, people management and stress management processes. In order to satisfy this need, longitudinal case studies and evidence of the efficacy of different integration approaches will be required to ensure that HSE guidance provides appropriate support for employers.

The research has demonstrated: that there is a considerable overlap between the 'Management competencies for preventing and reducing stress at work' and general management competencies; and that organisations feel that implementation of the research findings can be used move the agenda from focussing on stress to a broader focus on good management and healthy organisational cultures. In this domain, the research has links with, and therefore provides a potential platform for integration across, a range of UK Governmental initiatives. For example, the following national initiatives have all, at the time of writing, recently highlighted the need for improved management skills and/or the link between management and employee well-being:

- In her role as National Director for Health and Work (leading the Government's Health Work and Well-being initiative), Dame Carol Black has been conducting a review of evidence relating to the health of the working age population. This report was published on 17<sup>th</sup> March 2008 under the title 'Working for a healthier tomorrow'. (Black, 2008). This review points to the importance of the line manager in ensuring health and well-being and improved performance in the workplace, stating "Good management can lead to good health, well-being and performance.

The reverse can be true of bad management.....the line manager is a key agent of change”. The report goes on to state the need for line managers to be supported “to understand that the health and well-being of employees is their responsibility, and should be willing to take action when health and well-being are at risk”.(p 59)

- The Leitch Review of Skills Report (Leitch, 2006) recommends placing importance on improving and investing in management skills in the UK. The report makes clear that leadership and management need to move up the Governmental policy agenda, stating that there is ‘a good case for the current Leadership and Management Advisory Panel to report to the commission’ (p 22). This report is also referred to in Dame Carol Black’s review, adding that “It is important that line managers feel equipped and confident about approaching sensitive or difficult areas of conversation”. (p. 64).

Thus, these two separate reports have highlighted the importance of the manager in affecting the well-being of employees, the need for greater management skills in the UK and the need for further research into interventions to improve employee well-being. Promulgation of the findings of the current study could help to fill some of the needs identified in a way that bridges and integrates these different initiatives. Given its further links to Investors in People UK and to the DTI’s Inspirational Leadership initiative, the research could be a vehicle for ‘joined up thinking’ at Governmental and national levels, by integrating the Health, Work and Well-being, Skills, Health and Safety, and Business agendas. This would be particularly true if effective interventions could be developed to improve employee well-being by improving manager skills/behaviour.

## **5.2 RESEARCH**

In order to progress this research, and to enable the development of a sound psychometric measure, the next step is to test the validity of the refined ‘Management competencies for preventing and reducing stress at work’ and the ‘Stress management competency indicator tool’. This next step should have two objectives: firstly to test the concurrent validity of the competency framework by determining the cross-sectional associations between the competencies and stress-related outcomes (including both the stress-related impact on employee behaviour and employee perceptions of the psychosocial hazards covered by the HSE Management Standards); and secondly, to test the predictive validity of the competencies by determining the longitudinal associations (over time) between the competencies and stress-related outcomes (impact and psychosocial hazards). It would also be important to gather more accurate construct validity data by looking for correlations of the emergent ‘Stress management competency indicator tool’ with different methods of measuring the same construct (Convergent validity), and measures of different constructs (Divergent validity). It would also be necessary to collect further data to enable a confirmatory factor analysis to be conducted to analyse the psychometric significance of the factors (competencies), to explore the second-order factor structure (sub-competencies), and to explore any differences by demographics in the composition of the framework, such as by gender, occupation, private/public sector and managerial level.

An important next step in this research would be to design and test interventions that develop managers’ management competence in the prevention and reduction of stress. The adoption of a quasi-experimental design with pre- and post-intervention measures of behaviour and relevant stress-related outcomes would allow the framework to be tested over time while also exploring the effectiveness of training interventions targeted at behaviour change. Furthermore, research comparing training that aims to develop managers’ management competence in this area to other forms of stress management training (such as identifying and tackling stress at work) would provide important information to guide organisational interventions.



Finally, there is need for further qualitative research to be conducted to look at how the research findings can best be embedded within organisational culture and practice. This should aim to capture data on organisations integrating the framework and the tool into their existing processes (e.g. people management, HR, management development and stress management processes), in order to allow the development of case studies. These case studies could be used in the development of further guidance materials, satisfying the user-defined need for a 'tool-kit'.

### **5.3 EMPLOYERS (HEALTH AND SAFETY, OCCUPATIONAL HEALTH AND HUMAN RESOURCES PROFESSIONALS)**

Evidence, collected since the launch of the Phase One report (Yarker et al, 2007) and in the usability study described in this report, suggests that organisations are already using the 'Management competencies for preventing and reducing stress at work' framework and that the framework succeeds in putting stress management and implementation of the HSE Management Standards into accessible and business-friendly language. Use of the framework has been both at the individual level, enabling managers to access specific and clear guidance about behaviours they should be displaying; and at a group/organisational level, guiding the design of training programmes and interventions.

The usability data about the emergent 'Stress management competency indicator tool' has also been encouraging, with the vast proportion of managers who used the measure finding it 'easy' or 'very easy' to answer, relevant to their roles, and accurate in terms of identifying key management development areas.

This study extends the messages provided to employers in Phase One of this research (Yarker et al, 2007), that the 'Management competencies for preventing and reducing stress at work' framework and the 'Stress management competency indicator tool' can be used both in terms of embedding stress management into people management, and in terms of complementing other stress management activities. This dual use of the framework and the tool came out very strongly from the research, moving the utility of this research firmly beyond stress to broader aspects of good management and healthy organisational cultures.

With regards to the use of the framework and tool within people management processes, the usability study suggests that the framework and the tool would be best utilised in a performance management/development context rather than in a selection context. This could involve: dovetailing the framework into existing leadership/management training and development programmes; using it within induction programmes to promote the behaviours to new managers and employees joining the organisation; and/or as a guiding framework or structure for training packages focusing on people management processes, such as communication or delegation skills. In addition, the 'Stress management competency indicator tool' could be used: as an aid to personal insight and change, promoting self awareness for managers; and/or as an assessment component within a wider development programme. There was a caveat about the use of the tool: that to be effective users must ensure that it was used developmentally, within an overall programme of feedback, support and coaching, rather than an assessment process to be used for administrative purposes such as selection and promotion.

With regards to the use of the framework and tool within stress management processes, the usability study extended previous suggestions made in Yarker et al (2007). It suggested that the framework be used to review and update existing stress policies and to aid in the development of action plans following audits of workplace stressors. It was also felt that the competency framework could be used in the development of policies in areas not directly stress related, but where employee stress has a particular impact on work, such as Managing Attendance, Welfare and Equal Opportunities. The tool was felt to be useful as an individual diagnostic, enabling organisational stress management to be focused locally at the individual manager, potentially as the next stage of analysis or evaluation after the more globally focused HSE indicator tool. It was also felt to provide a mechanism for tackling specific situations or scenarios, either in departments, units or teams where stress is a problem, or for tackling specific psychosocial hazards (Demands, Control, Support, Role, Relationships and Change). The tool was welcomed by stakeholders and stress experts as a way to 'tie-in' and engage the manager in the process of stress management.

As suggested in Phase One, although both the framework and the tool have wide uses and implications within the organisation, the overriding benefit of both deliverables will be to enable employers to support managers better. Managers are expected to do a very complex role, often (in the experience of this research project) with little support or training. By using both the 'Management competencies for preventing and reducing stress at work' framework and the 'Stress management competency indicator tool' in a supportive and developmental way, employers can help managers to be effective stress managers in terms of being able to prevent, identify and tackle stress in their teams – without actually increasing the workload and therefore the stress upon the line manager him-/herself.

#### **5.4 LINE MANAGERS**

The key messages to line managers largely stay as stated in the first phase of this research. Firstly, effective stress management does not have to be a separate activity: stress management is a part of normal general management activities. It is about the way managers behave on a day-to-day basis towards those that they manage.

There is not one key behaviour needed to be an effective stress manager, therefore managers will be required to think about using a complementary set of behaviours. These behaviours are likely to differ in importance depending on the situation and the individual employees concerned.

Through providing managers with a clear specification of those behaviours required to manage staff in a way that prevents and reduces stress at work, and a means to assess whether those behaviours are already part of their repertoire or not, managers can learn to apply them in their own work area. Some of these behaviours are things that many managers probably already do, others may need to be added to their management approach. The development of the 'Stress management competency indicator tool' opens the possibility of assessing the relevant behaviours through self-assessment, upward feedback or 360 degree feedback. This allows managers to assess if there are gaps in skills or behaviours that are difficult for them in particular, and therefore seek targeted help and guidance as a result.

For managers that are involved in other stress management activities, such as risk assessments or stress auditing, both the framework and the tool can provide a useful starting point from which to approach solutions. For example, if the risk assessment identified that a team reported particular psychosocial hazards or issues, managers could use the framework to reflect upon their own behaviour, and the tool as a means of self assessment and/or getting others' feedback to provide clarity around ways in which they might alter their behaviour to enhance staff well-being.

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## 7 APPENDIX

### 2.0 FULL BREAKDOWN OF EACH PARTICIPATING ORGANISATION AND METHOD OF RECRUITMENT

#### Healthcare:

57% recruitment from existing participation in Phase One including The Royal Free Hospital, The Cardiff and Vale Trust, Central Manchester University Hospital and Northumbria Trust.  
43% recruitment from interest secured via networking and dissemination of Phase One research including Gwent Healthcare NHS Trust, Park House Kent and East Malling NHS Trust, and the Royal Wolverhampton Hospitals NHS Trust.

#### Education:

50% recruitment from existing participation in Phase One, including British Geological Survey and George Monoux School.  
50% recruitment via dissemination of Phase One, including Biotechnology and Biological Sciences Research Council and Hull University.

#### Central Government:

100% recruitment from existing participation in Phase One, including Home Office Scientific Development Bureau, Northern Ireland Civil Service and West Yorkshire Probation Service.

#### Local Government:

100% recruitment from existing participation in Phase One, including London Fire Service, Oxford City Council and Sheffield City Council.

#### Finance:

100% recruitment from existing participation in Phase One, including Bradford and Bingley, Lloyds TSB, Prudential, Standard Life.

#### Other:

One organisation (BP) was recruited following interest raised by the dissemination of the results of Phase One.

### 2.1 EXAMPLE OF RECRUITMENT LETTER TO ORGANISATIONS

Stress Management Competence: Call for Support for Project Phase Two

Research sponsored by the UK Health and Safety Executive, the Chartered Institute of Personnel Development and Investors in People

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#### Background and overview of Phase One

Workplace stress is a problem that costs UK industry an estimated £9.6bn per year (HSE, 2003; CBI, 1999). The Health and Safety Executive Management Standards and associated guidance offer both a framework and a programme of activity for organisations to identify, tackle and manage work related stress. The aim is that implementation of the standards, by reducing work-related stress, will contribute to the improved health of the workforce, reduce absenteeism costs and enhance performance, satisfaction and productivity. Whilst the initiative is driven from Health and Safety, much of the responsibility for its implementation will fall on Human Resources (HR) professionals and line managers. This necessitates not only that HR professionals and managers have an informed understanding of what stress is,

but also that they understand the skills, abilities and behaviours needed to implement the Management Standards and manage their staff in a way that minimises work-related stress.

This phase aimed to:

- Clarify the specific behaviours required by managers to prevent, tackle and identify stress effectively, thereby producing a set of Management competencies for preventing and reducing stress at work.
- Identify specific behaviours associated with each of the six Management Standards and those behaviours that are associated with the implementation of the HSE Management Standards.

To achieve this, interviews were conducted with 320 managers and employees, and discussions held with over 50 HR professionals, in order to establish what management behaviours were relevant to the effective and ineffective management of employee stress and well-being. From the behaviours gathered, a 'Management competencies for preventing and reducing stress at work' framework was produced which provided behavioural indicators of 19 competencies constituting 'healthy' management. For a copy of this framework, please contact Rachel Lewis at the addresses below.

#### Overview of Phase Two Aims

Phase Two of this project commenced in February 2007. This purpose of this phase will be to test the validity and usability of the framework identified in Phase One. In this phase, a stress management competency indicator tool will also be produced, which will measure the degree to which a manager displays stress management competencies. This will be able to be used as a self report measure for line managers, or as an upward feedback measure within appraisals.

What your collaboration would entail

One questionnaire (March 2007 - May 2007):

- Questionnaire battery completed by 10 line managers and their team member
- We expect the questionnaire to take 30 minutes to complete.

Interview with stakeholder and with each manager to discuss usability.

Outcomes, deliverables and benefits to <your organisation>

- If appropriate, provision of individual level feedback to each of the participating managers as part of a personal development process.
- Psychometric measure in the form of a Stress Management competency tool for managers to use as a self report measure or as an upward feedback measure
- An executive summary outlining the most skills and development areas identified in your organisation
- Presentation to senior management: This can provide a review of new evidence-based management practice and focus on strategies to reduce absence and increase staff well-being within your organisation.

#### Confidentiality

All information collected will remain confidential. Where feedback is given at the individual level, careful negotiation will be held with yourselves to ensure that information will be used in a constructive and ethical manner. Where individual feedback reports are created, consent from all participating team members will also be gained. For organisational feedback, information will be reported back at the group level, identifying themes across your organisation rather than within each management team, in order to ensure anonymity and confidentiality of results.

## 2.2 EXAMPLE OF RECRUITMENT LETTER TO MANAGERS

### Stress Management Competence Project

Research sponsored by the UK Health and Safety Executive, the Chartered Institute of Personnel Development and Investors in People

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#### Background to the Project

- Workplace stress is a problem that costs UK industry an estimated £9.6bn per year
- 1 in 5 employees report that they have been either very or extremely stressed at work
- Healthcare is one of five sectors with the highest incidence of stress related absence

In 2004, the Health and Safety Executive published a set of Management Standards to offer both a framework and a programme of activity for organisations to identify, tackle and manage work related stress, with the aim of reducing work related stress and absenteeism and enhancing performance, satisfaction and productivity. Whilst the initiative is driven from Health and Safety, much of the responsibility for its implementation will fall on managers such as yourselves. This necessitates not only you understand what stress is, but also the skills, abilities and behaviours needed to implement the Management Standards and manage your staff in a way that minimises work-related stress.

#### What's involved?

You and your team will be invited to complete an online questionnaire in August/September. This will take approximately 20 minutes to complete. The questionnaire will aim to find out where you perceive your strengths and development areas lie in the area of people management, and more specifically stress management, and also what the perceptions of those working for you might be. In September/October you will then receive feedback in the form of an online report, and be offered the opportunity to take part in a one-to-one coaching and management development session with a business psychologist. All information collected will remain confidential and no-one in the organisation will be able to see the individual responses of you or your team. Feedback from your team will be in the form of group feedback, therefore you will not be able to see how individual team members responded.

#### What are the benefits to me?

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- Guidance on optimising the well-being and satisfaction of your team
- Increased self knowledge: Online feedback report detailing your effective management skills, and areas where you can develop to optimise results
- Developing further management skills: One-to-one coaching session
- Development Tools: Access to a valid 'Stress Management Competency tool' which can be used as a self appraisal tool, or as part of a group feedback system.

## 2.3 EXAMPLE OF RECRUITMENT LETTER TO DIRECT REPORTS

### Stress Management Competency Research Project

Research sponsored by the UK Health and Safety Executive, the Chartered Institute of Personnel Development and Investors in People

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#### Information Letter

This letter has been sent you as a result of your line manager's intention to participate in the following research project. Your manager is interested in understanding more about their own management style. This letter provides essential information about the background to the research, the time commitment required from you should you choose to participate, and the measures taken to ensure confidentiality and anonymity of your responses. Your involvement in this research project is entirely voluntary. If you choose not to participate neither your manager, nor the organisation will be informed. It is the aim of this letter to enable you to make an informed decision as to whether this project is something you would like to be involved in.

#### Background and overview of Phase One (completed December 2006)

Workplace stress is a problem that costs UK industry an estimated £9.6bn per year (HSE, 2003; CBI, 1999). The Health and Safety Executive Management Standards and associated guidance offer both a framework and a programme of activity for organisations to identify, tackle and manage work related stress. The aim is that implementation of the standards, by reducing work-related stress, will contribute to the improved health of the work force, reduce absenteeism costs and enhance performance, satisfaction and productivity. Whilst the initiative is driven from Health and Safety, much of the responsibility for its implementation will fall onto line managers. This necessitates not only that line managers have an informed understanding of what stress is, but also that they understand the skills, abilities and behaviours needed to implement the Management Standards and manage their staff in a way that minimises work-related stress.

This phase aimed to:

- Clarify the specific behaviours required by managers to prevent, tackle and identify stress effectively, thereby producing a set of Management competencies for preventing and reducing stress at work.
- Identify specific behaviours associated with each of the six Management Standards and those behaviours that are associated with the implementation of the HSE Management Standards.

To achieve this, interviews were conducted with 320 managers and employees in order to establish what management behaviours were relevant to the effective and ineffective management of employee stress and well-being. From the behaviours gathered, a 'Management competencies for preventing and reducing stress at work' framework was produced which provided behavioural indicators of 19 competencies constituting 'healthy' management. For a copy of this framework, please contact Rachel Lewis at the addresses below.

#### Overview of the Current Research Aims (Phase Two)

Phase Two of this project commenced in March 2007. This purpose of this phase is to test the usefulness of the framework identified in Phase One. This will be established by determining the links between the competencies identified and stress related and health outcomes, in order

to identify which of the 19 competencies are most important to stress management and for each of the Management Standards.

In this phase, a stress management competency indicator tool will also be produced, which will measure the degree to which a manager displays stress management competencies. This will be able to be used as a self report measure for line managers, or as an upward feedback measure within appraisals.

What your collaboration would entail

The completion of one questionnaire which will take approximately 30 minutes of your time. In this questionnaire you will be asked to provide your perceptions on your manager's competence in various areas of people management. Your other team members, should they choose to participate, will be responding to the same questionnaire. Your manager will also respond to a similar questionnaire, providing their perceptions of their own management style.

Following completion of the questionnaire, your manager will receive a written feedback report which will provide a summary of their perceptions of their own management style, and the perceptions of their team members. The team member feedback will be a grouped response rather than reflecting any individual scores (an average team response), and will also not be provided if less than three direct reports did not choose to participate. Your manager will not be able to see whether or not you responded, let alone what your individual responses were.

Should you choose to participate:

- You will receive an executive summary outlining the most important management behaviours for the management of stress in your organisation.
- You will also be told when your manager has received their written feedback.

Should you choose not to participate:

- Please respond directly to this e-mail address. Neither your manager, nor your organisation will be informed of this decision.
- There will be no detriment to your current or future employment should you decide not to participate, or to withdraw from the research at any point.

## **2.4 EXAMPLE OF RECRUITMENT LETTER TO WORKSHOP PARTICIPANTS**

Dear Colleagues

You may have heard about the research we are conducting to determine the behaviours line managers need to show in order to prevent and reduce stress in those they manage. Funded by the Health and Safety Executive, the Chartered Institute of Personnel and Development and Investors in People UK, the research is now in its second phase. The aim of this phase is to establish the validity and usability of the management competency framework that was produced in the first phase and we would like to invite you to participate in a workshop that forms part of the research process. The details of the workshops are as follows:

Date: Friday 30th November 2007

Time: 8.30am to 10.30am OR 2.00pm to 4.00pm (PLEASE SPECIFY WHICH ONE YOU WOULD LIKE TO ATTEND)

Venue: Globe Room, Health and Safety Executive, Rose Court, 2 Southwark Bridge, London,

SE1 9HS

The workshops are for experts who have not participated in the research to date, including HR, Occupational Health and Health & Safety practitioners, and academics and consultants working within the field of Stress Management. During the workshop you will have the opportunity to:

- learn about the latest findings from the second phase of this research;
- explore the updated version of the management competency framework resulting from a quantitative survey we have conducted (pre-publication);
- be the first to see the new questionnaire tool we have designed to measure the management competencies;
- suggest amendments or improvements to the competency framework and the questionnaire tool; and
- provide feedback on the usability of the framework and tool, in particular: a) the range of ways in which they can be used in organisations and b) the best approaches for employers using them.

We do hope you will be able to attend one of the workshops on 30th November. Please let us know and confirm which workshop you would like to attend (8.30am or 2.00pm start) by replying to this email.

Looking forward to seeing you on 30th November  
With best wishes  
Emma

PS If you haven't already seen them, the results of the first phase of the research are available for free download as follows:

- The full research report can be downloaded from the HSE website:  
<http://www.hse.gov.uk/research/rrhtm/rr553.htm>
- Short guidance leaflets providing the findings of the research can be downloaded from the CIPD website: [http://www.cipd.co.uk:80/subjects/health/stress/\\_lnmngstrs.htm](http://www.cipd.co.uk:80/subjects/health/stress/_lnmngstrs.htm)

## **2.5 EXAMPLE OF MANAGER AND DIRECT REPORT PAPER QUESTIONNAIRES**

Name/Code .....

I am a TEAM MEMBER and my MANAGER IS .....

Welcome to the Stress Management Competencies Project where we are working to investigate the link between effective management and employee well-being at work. If you would like to learn more about this project and what your participation will mean for the project, please e-mail Rachel Lewis on [rachelclewis@mac.com](mailto:rachelclewis@mac.com).

All the information you provide is confidential and your individual responses will not be available to anyone apart from the research team. As a team member, your responses to Section One will be combined with those of your colleagues and used in a group feedback report to your manager. Neither your manager, nor your organisation, will have access to your individual responses on any part of the questionnaire. Your manager will not receive feedback on any other part of the questionnaire except for Section One.

## How to complete the Questionnaire

Once you have accessed the questionnaire, please review the statements in each section and answer by highlighting the response that best reflects your opinion. Where you feel you do not have sufficient knowledge to enable you to respond, either highlight the 'No opportunity to observe' option in Section One, or in all other sections, please leave it blank.

- Do complete the questionnaire quickly – it should take about 30 minutes
- Don't spend too much time on each question – your immediate response is normally the most valuable
- Do be completely honest and open in your responses, and try to use the full range of the response scale.

The questionnaire will take approximately 30 minutes to complete. All questionnaires must be completed by 1st June 2007. If this questionnaire has been emailed to you, you are able to fill in the answers, re-save the document and send back to [rachelclewis@mac.com](mailto:rachelclewis@mac.com). If you have received it by paper, please post to the following address:

Rachel Lewis, Goldsmiths, University of London, c/o 40 Victorian Heights, Thackeray Road, Battersea SW8 3TF.

Section One: About Your Manager

All questions in this section are prefixed by 'My Manager....'

		Strongly Disagree	Disagree	Slightly Agree	Agree	Strongly Agree	No Opportunity to Observe
<b>Workload and Resources</b>							
Q1	Brings in additional resources (such as temporary staff) when necessary						
Q2	Monitors my workload on an on-going basis						
Q3	When necessary, will stop additional work being passed on to me						
Q4	Delegates work equally across the team						
Q5	Creates unrealistic deadlines for delivery of work						
Q6	Demonstrates a lack of awareness of how much pressure I am under						
Q7	Delegates tasks that match my ability						
<b>Dealing with Work Problems</b>							
Q8	Follows up problems on my behalf						
Q9	Develops action plans						
Q10	Makes problems more manageable by breaking them into smaller parts						
Q11	Deals rationally with problems						
Q12	Listens to my issues, but doesn't help resolve them						
Q13	Is indecisive at decision making						
Q14	Doesn't take my work problems seriously						
Q15	Deals with problems as soon as they arise						
<b>Process Planning and Organisation</b>							
Q16	Reviews processes to see if work can be improved						
Q17	Prioritises future workloads						
Q18	Works proactively						
Q19	Is consistent in his/her approach to managing						
Q20	Panics about deadlines						
Q21	Makes short term demands rather than allowing me to plan my work						
Q22	See projects/tasks through to delivery						
Q23	Encourages me to review how I organize my work						



		Strongly Disagree	Disagree	Slightly Agree	Agree	Strongly Agree	No Opportunity to Observe
<b>Empowerment</b>							
Q24	Gives me the right level of job responsibility						
Q25	Gives me too little direction						
Q26	Imposes 'my way is the only way'						
Q27	Accepts my judgement at work						
Q28	Keeps me accountable for my own work						
Q29	Involves me in decision making						
<b>Participative Approach</b>							
Q30	Provides opportunities to air views						
Q31	Provides regular team meetings						
Q32	Encourages participation from the whole team						
Q33	Correctly judges when to consult employees and when to make a decision						
Q34	Listens to me when I ask for help						
Q35	Makes decisions without consulting the team						
Q36	Encourages my input in discussions						
Q37	Is open to new ideas						
Q38	Takes suggestions for improvements as a personal criticism						
<b>Development</b>							
Q39	Encourages me to take up development opportunities (such as training)						
Q40	Acts as a mentor to me						
Q41	Regularly reviews my development						
Q42	Helps me to develop in my role						
Q43	Does not give me opportunities to use my new skills						
Q44	Encourages me to 'step outside my comfort zone' and take on new tasks						
<b>Accessible/ Visible</b>							
Q45	Is available to talk to when needed						
Q46	Is constantly away from their desk/in meetings						
Q47	Says 'good morning' to me						
Q48	Returns my calls/e-mails promptly						
Q49	Prefers to speak to me personally than use e-mail						
<b>Health and Safety</b>							
Q50	Ensures all Health and Safety requirements are met at work						
Q51	Would be critical if I raised a safety issue						
Q52	Is proactive in checking Health and Safety issues						

		Strongly Disagree	Disagree	Slightly Agree	Agree	Strongly Agree	No Opportunity to Observe
<b>Feedback</b>							
Q53	Acknowledges my efforts at work						
Q54	Operates a no-blame culture						
Q55	Doesn't give me credit for hitting deadlines						
Q56	Gives me encouragement on my work						
Q57	Seems to give more negative than positive feedback						
<b>Individual Consideration</b>							
Q58	Provides regular opportunities to speak one-to-one						
Q59	Is flexible when I need time off work						
Q60	Regularly asks 'how are you?'						
Q61	Assumes, rather than checks, I am OK						
Q62	Shows a lack of consideration for my worklife balance						
<b>Managing Conflict</b>							
Q63	Takes sides in conflicts between employees						
Q64	Deals objectively with employee conflicts						
Q65	Supports employees through incidents of abuse						
Q66	Deals with employee conflicts head on						
Q67	Follows up conflicts after resolution						
Q68	Doesn't address bullying						
Q69	Acts to keep the peace rather than resolve conflict issues						
Q70	Acts as a mediator in conflict situations						
Q71	Deals with squabbles before they turn into arguments						
<b>Expressing and Managing Emotions</b>							
Q72	Takes a positive approach at work						
Q73	Acts calmly in pressured situations						
Q74	Passes on his/her stress to me						
Q75	Acts aggressively at work						
Q76	Is unpredictable in mood						
Q77	Is a good role model						
<b>Acting with Integrity</b>							
Q78	Will keep anything I say to him/her confidential						
Q79	Treats me with equal importance to the rest of the team						
Q80	Speaks about team members behind their backs						
Q81	Makes promises, but doesn't deliver						
Q82	Is honest						
Q83	Says one thing, then does something different						
Q84	Treats me with respect						

Friendly Style									
Q85	Is willing to have a laugh at work								
Q86	Socialises with the team								
Q87	Brings us treats such as cakes								
Q88	Chats informally with me								
Q89	Organises social events for the team								
Communication									
Q90	Keeps me informed of what is happening in the organisation								
Q91	Communicates my job objectives to me clearly								
Q92	Is slow to communicate organizational change								
Q93	Aims to provide an understanding of the reasons for the change								
Q94	Checks my understanding of what he/she has said								
Taking Responsibility									
Q95	Steps in to help out when needed								
Q96	Makes it clear he/she will take ultimate responsibility if things go wrong								
Q97	Blames the team rather than him/herself when things go wrong								
Q98	Walks away from problems								
Q99	Relies on other people to deal with problems								
Knowledge of Job									
Q100	Is able to put him/herself in my shoes								
Q101	Has enough expertise to give good advice								
Q102	Knows what I do in my job								
Q103	Has enough experience to know how to deal with most situations relating to my job								
Empathy									
Q104	Takes an interest in my life outside work								
Q105	Shows awareness of different styles of working in the team								
Q106	Is insensitive to personal issues when they arise								
Q107	Tries to see things from my point of view								
Q108	Makes an effort to find out what motivates me at work								
Q109	Recognises the correct time to step in when I am under pressure								
Seeking Advice									
Q110	Seeks help from occupational health when necessary								
Q111	Seeks advice from other managers when necessary								
Q112	Uses HR as a resource to help deal with problems								

Section Two: About you at work

Q7 What age are you?

Q8 Are you...  Male  Female

Q9	How long have you worked in your current organisation? [ <input type="text"/> ] years, [ <input type="text"/> ] months
Q10	How long have you worked in your current job? [ <input type="text"/> ] years, [ <input type="text"/> ] months
Q11	How long have you worked in your current team? [ <input type="text"/> ] years, [ <input type="text"/> ] months
Q12	How many hours do you work in a given week? [ <input type="text"/> ]

## 2.6 FACTOR NAMING SHEET PROVIDED TO WORKSHOP PARTICIPANTS

Management competencies for preventing and reducing stress at work

New competency structure – Exercise – Name that competency!

During Phase Two of this research, we have developed a questionnaire to measure the extent to which managers show the ‘Management competencies for preventing and reducing stress at work’ that emerged from the Phase One study. We have piloted this questionnaire in a range of organisations, asking employees to rate their manager and managers to rate themselves (using a response scale from strongly disagree to strongly agree). We have factor-analysed the data from the pilot to see how the questions fit with one another. A four-factor structure emerges as set out below.

Please discuss these factors in your small group and agree a name for each of the factors. Please provide us with your agreed factor names on the accompanying sheet.

Factor One (17 questions):

- Creates unrealistic deadlines for delivery of work
- Is consistent in his/her approach to managing
- Panics about deadlines
- Makes short term demands rather than allowing me to plan my work
- Imposes ‘my way is the only way’
- Takes suggestions for improvement as a personal criticism
- Seems to give more negative than positive feedback
- Shows a lack of consideration for my worklife balance
- Acts calmly in pressured situations
- Passes on his/her stress to me
- Is unpredictable in mood
- Is a good role model
- Speaks about team members behind their backs
- Is honest
- Says one thing, then does something different
- Treats me with respect
- Relies on other people to deal with problems

Factor Two (22 questions):

- Monitors my workload on an ongoing basis
- When necessary will stop additional work being passed on to me
- Delegates work equally across the team
- Follows up problems on my behalf
- Develops action plans

Deals rationally with problems  
Is indecisive at decision making  
Deals with problems as soon as they arise  
Reviews processes to see if work can be improved  
Prioritises future workloads  
Works proactively  
Sees projects/tasks through to delivery  
Encourages me to review how I organise my work  
Gives me the right level of job responsibility  
Gives me too little direction  
Provides regular team meetings  
Encourages participation from the whole team  
Correctly judges when to consult employees and when to make a decision  
Acts as a mentor to me  
Helps me to develop in my role  
Keeps me informed of what is happening in the organisation  
Communicates my job objectives to me clearly

Factor Three (12 questions):

Deals objectively with employee conflicts  
Supports employees through incidents of abuse  
Deals with employee conflicts head on  
Follows up conflicts after resolution  
Doesn't address bullying  
Acts to keep the peace rather than resolve conflict issues  
Acts as a mediator in conflict situations  
Deals with squabbles before they turn into arguments  
Makes it clear he/she will take ultimate responsibility if things go wrong  
Seeks help from occupational health when necessary  
Seeks advice from other managers when necessary  
Uses HR as a resource to help deal with problems

Factor Four (16 questions):

Listens to me when I ask for help  
Encourages my input in discussions  
Is available to talk to when needed  
Returns my calls/e-mails promptly  
Prefers to speak to me personally than use e-mail  
Provides regular opportunities to speak one to one  
Regularly asks 'how are you?'  
Assumes, rather than checks, I am OK  
Treats me with equal importance to the rest of the team  
Is willing to have a laugh at work  
Socialises with the team  
Brings us treats such as cakes  
Organises social events for the team  
Takes an interest in my life outside work  
Tries to see things from my point of view  
Makes an effort to find out what motivates me at work

We will take the competency names generated from the two workshops we are running today and ask someone independent to choose which names we should use in the final published version of the new competency framework.

Thank you for your input!

## 2.7 COMPETENCY CLUSTERING INSTRUCTION SHEET PROVIDED TO WORKSHOP PARTICIPANTS

Management competencies for preventing and reducing stress at work

New competency structure – Exercise – Clusters within the competencies

We have put each of the questions from the four new factors onto a separate slip of paper. You will be provided with four envelopes – one per factor – with each envelope containing a slip for each of the questions within that factor. In your small groups please complete the following steps:

Working on one factor/envelope at a time...

1. Please review the slips/questions from this factor and see whether you think that they fall into clusters or sub-themes.
2. If there is more than one cluster/sub-theme within a factor, please stick the slips/questions that make up each cluster/sub-theme onto a sheet of paper per cluster.
3. Please give each cluster a name and write the name at the top of the sheet of paper.
4. If there are any questions/slips that you feel are not relevant, don't fit into the cluster or are not useful, please mark them REJECT and indicate why.
5. Please hand your named clusters and any rejected slips to us.

Please repeat for each factor/envelope in turn.

We will take the clusters and rejected questions generated from the two workshops we are running today and ask someone independent to come up with a final set of clusters and questions.

Thank you for your input!

## 3.0 FINAL PATTERN MATRIX

Extraction method: Principal component analysis

Rotation method: Oblimin with Kaiser normalisation

	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Monitors my workload on an ongoing basis			.680	
When necessary, will stop additional work being passed on to me			.584	
Delegates work equally across the team			.530	
Creates unrealistic deadlines for delivery of work	.406			
Follows up problems on my behalf			.510	
Develops action plans			.702	
Deals rationally with problems			.476	
Is indecisive at decision making			.446	
Deals with problems as soon as they arise			.638	
Reviews processes to see if work can be improved			.677	

Prioritises future workloads		.725	
Works proactively		.742	
Is consistent in his/her approach to managing	.446		
Panics about deadlines	.647		
Makes short term demands rather than allowing me to plan my work	.506		
Sees projects/tasks through to delivery		.571	
Encourages me to review how I organise my work		.601	
Gives me the right level of job responsibility		.407	
Gives me too little direction		.471	
Imposes 'my way is the only way'	.572		
Provides regular team meetings		.448	
Encourages participation from the whole team		.481	
Correctly judges when to consult employees and when to make a decision		.608	
Listens to me when I ask for help			.412
Encourages my input in discussions			.410
Takes suggestions for improvements as a personal criticism	.471		
Acts as a mentor to me		.430	
Helps me to develop in my role		.458	
Is available to talk to when needed			.477
Returns my calls/emails promptly			.418
Prefers to speak to me personally than use email			.492
Seems to give more negative than positive feedback	.497		
Provides regular opportunities to speak one-to-one			.513
Regularly asks 'how are you?'			.556
Assumes, rather than checks, I am OK			.403
Shows a lack of consideration for my worklife balance	.475		
Deals objectively with employee conflicts		.771	
Supports employees through incidents of abuse		.760	
Deals with employee conflicts head on		.871	
Follows up conflicts after resolution		.832	
Doesn't address bullying		.766	
Acts to keep the peace rather than resolve conflict issues		.814	
Acts as a mediator in conflict situations		.812	
Deals with squabbles before they turn into arguments		.752	
Acts calmly in pressured situations	.584		
Passes on his/her stress to me	.786		
Acts aggressively at work	.732		
Is unpredictable in mood	.777		
Is a good role model	.497		
Treats me with equal importance to the rest of the team			.407
Speaks about team members behind their backs	.602		
Is honest	.579		
Says one thing, then does something different	.651		
Treats me with respect	.485		
Is willing to have a laugh at work			.469
Socialises with the team			.430
Brings us treats such as cakes			.481
Organises social events for the team			.430
Keeps me informed of what is happening in the organisation		.446	
Communicates my job objectives to me clearly		.644	
Makes it clear that he/she will take ultimate		.413	

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responsibility if things go wrong		
Relies on other people to deal with problems	.490	
Takes an interest in my life outside work		.641
Tries to see things from my point of view		.429
Makes an effort to find out what motivates me at work		.443
Seeks help from occupational health when necessary	.643	
Seeks advice from other managers when necessary	.489	
Uses HR as a resource to help deal with problems	.637	

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### 3.1 SELF REPORT VERSION OF 'STRESS MANAGEMENT COMPETENCY INDICATOR TOOL'

Each question is preceded by 'I...'

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<i>Competency</i>	<i>Sub-competency</i>	<i>Items</i>
Respectful and responsible: Managing emotions and having integrity	Integrity	Am a good role model
		Say one thing, then do something different
		Treats my team with respect
	Managing emotions	Am honest
		Speak about team members behind their backs
		Am unpredictable in mood
		Act calmly in pressured situations
		Pass on my stress to my team
		Am consistent in my approach to managing
	Considerate approach	Take suggestions for improvement as a personal criticism
		Panic about deadlines
		Make short term demands rather than allowing them to plan their work
Create unrealistic deadlines for delivery of work		
Seem to give more negative than positive feedback		
Rely on other people to deal with problems		
Managing and communicating existing and future work	Proactive work management	Impose 'my way is the only way'
		Show a lack of consideration for my team's worklife balance
		Communicate my team members' job objectives clearly
		Develop action plans
		Monitor my team's workload on an ongoing basis
		Encourage my team to review how they organise their work
	Problem solving	When necessary, will stop additional work being passed on to my team
		Work proactively
		See projects/tasks through to delivery
		Review processes to see if work can be improved
		Prioritise future workloads
		Am indecisive at decision making
Participative/empowering	Deal rationally with problems	
	Follow up problems on my behalf of my team	
	Deal with problems as soon as they arise	
	Give my team the right level of job responsibility	
	Correctly judge when to consult employees and when to make a decision	
	Keep my team informed of what is happening in the organisation	
Act as a mentor		
Delegate work equally across the team		

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Reasoning/Managing difficult situations	Managing conflict	<p>Help team members to develop in their role</p> <p>Encourage participation from the whole team</p> <p>Provide regular team meetings</p> <p>Gives my team too little direction</p> <p>Act as a mediator in conflict situations</p> <p>Act to keep the peace rather than resolve conflict issues</p> <p>Deal with squabbles before they turn into arguments</p> <p>Deal objectively with employee conflicts</p> <p>Deal with employee conflicts head on</p> <p>Seek advice from other managers when necessary</p> <p>Use HR as a resource to help deal with problems</p> <p>Seek help from occupational health when necessary</p> <p>Follow up conflicts after resolution</p> <p>Support employees through incidents of abuse</p> <p>Don't address bullying</p> <p>Make it clear I will take ultimate responsibility if things go wrong</p>
	Use of organisational resources Taking responsibility for resolving issues	<p>Prefer to speak to my team personally than use e-mail</p> <p>Provide regular opportunities to speak one to one</p> <p>Return calls/e-mails from my team promptly</p> <p>Am available to talk to when needed</p> <p>Bring in treats</p> <p>Socialise with the team</p> <p>Am willing to have a laugh at work</p> <p>Encourage my team's input in discussions</p> <p>Listen to my team when they ask for help</p> <p>Make an effort to find out what motivates my team</p> <p>Try to see things from my team's point of view</p> <p>Take an interest in my team's life outside work</p> <p>Regularly ask 'how are you?'</p> <p>Treat everyone in the team with equal importance</p> <p>Assume, rather than check, my team are OK</p>
Managing the individual within the team	Personally accessible	
	Sociable	
	Empathetic engagement	

### 3.2 MAPPING CONDUCTED ON ALL 12 MANAGEMENT FRAMEWORKS AND METRICS

#### Management Competency Framework 1: Great 8 Competency Framework

##### ***Great 8 Framework***

##### ***MCPARS Mapping***

Leading and Deciding (takes control and exercises leadership. Initiates action, gives direction, takes responsibility)	<p>Problem solving</p> <p>Proactive work management</p> <p>Taking responsibility for resolving issues</p>
Supporting and Cooperating (supports others, shows respect and positive regard. Puts people first, works effectively with individuals and teams. Behave consistently with clear values)	<p>Integrity</p> <p>Managing emotions</p> <p>Participative/empowering</p>
Interacting and Presenting (communicates and networks effectively. Persuades and influences others. Relates to others in a confident manner)	<p>Personally accessible</p> <p>Sociable</p> <p>Use of organisational resources</p> <p>Participative/empowering</p>
Analysing and Reporting (evidence of clear analytical thinking, gets to the heart of complex issues, applies own expertise, acquire skills for new technology. Good written communication)	<p>Proactive work management</p> <p>Problem solving</p>
Creating and Conceptualising (open to new ideas and experiences, seeks out learning opportunities, handles situations with innovation and creativity, thinks broadly and strategically, supports and drives organisational change)	<p>Proactive work management</p>
Organising and Executing (Plans ahead and works in a systematic and organised way. Follows directions and procedures. Focuses	<p>Proactive work management</p> <p>Problem solving</p>

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on customer satisfaction and delivers a quality service)  
Adapting and Coping (adapts and responds well to change,  
manages pressure effectively and copes well with setbacks)

Enterprising and Performing (focus on results and achieving  
personal work objectives. Works best when related closely to  
results and impact of personal efforts is obvious. Understanding  
of business, commerce and finance. Seeks opportunities for self  
development)

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Considerate approach  
Proactive work management  
Managing emotions  
Proactive work management  
Problem solving

MCPARS Competencies outside of Great 8 Framework:  
Managing conflict, empathetic engagement

Management Competency Framework 2: TLQ (Public Sector Scale)

<i>TLQ Framework</i>	<i>MCPARS Mapping</i>
Leading and Developing Others:	
Showing Genuine concern for others well-being and development (genuine interest in staff as individuals, values contributions, develops strengths, coaches, mentors, positive expectations)	Empathetic engagement Participative/empowering
Empowers, delegates, develops potential (trusts staff to take decisions/initiatives on important matters, delegates effectively, develops staffs potential)	Participative/empowering Proactive work management Considerate approach
Accessible, approachable, in-touch (approachable and not status conscious, prefers face-to-face communication, keeps in touch)	Personally accessible
Encouraging questioning and critical and strategic thinking (encourages questioning traditional approaches, new approaches to problems, strategic thinking)	Empathetic engagement Proactive work management
Personal Qualities:	
Transparency, honesty and consistency (honest and consistent, more concerned with the good of the organisation than personal ambition)	Integrity Managing emotions
Integrity and openness to ideas and advice (open to criticism and disagreement, consults and involves others in decision making, regards values as integral to the organisation)	Integrity Managing emotions Participative/empowering
Decisive, risk taking (decisive when required, prepared to take difficult decisions, and risks when appropriate)	Problem solving
Inspirational; in touch (Inspirational; exceptional communicator; inspires others to join them)	Participative/empowering
Analytical & creative thinker (Capacity to deal with a wide range of complex issues; creative in problem-solving)	Problem solving
Leading the Organisation:	
Inspirational communicator, networker & achiever (Inspiring communicator of the vision of the organisation/service to a wide network of internal and external stakeholders; gains the confidence and support of various groups through sensitivity to needs, and by achieving organisational goals)	Participative/empowering Use of organisational resources
Clarifies individual and team direction, priorities & purpose (clarifies objectives and boundaries; team-oriented to problem-solving and decision-making and to identifying values)	Proactive work management
Unites through a joint vision (Has a clear vision, and strategic direction, in which s/he engages various internal and external stakeholders in developing; draws others together in achieving the vision)	Use of organisational resources
Creates a supportive learning and self-development environment (supportive when mistakes are made; encourages critical feedback of him/herself and the service provided)	Participative/empowering Proactive work management
Manages change sensitively and skilfully (Sensitivity to the impact of change on different parts of the organisation; maintains a balance between change and stability)	Considerate approach Empathetic engagement

MCPARS Competencies outside of TLQ (Public) Framework:

Managing conflict, taking responsibility for resolving issues, sociable

Management Competency Framework 3: TLQ (Private Sector Scale)

<i>TLQ Framework</i>	<i>MCPARS Mapping</i>
Leading and Developing Others:	
Showing Genuine concern (genuine interest in staff as individuals, values contributions, develops strengths, coaches, mentors, positive expectations)	Empathetic engagement Participative/empowering
Enabling (good at developing potential, empowers, supports projects without interfering, balances needs of individuals and organisation)	Participative/empowering Considerate approach
Being accessible (able to discuss personal issues, approachable)	Personally accessible Empathetic engagement Proactive work management Managing emotions
Encouraging change (encourages production of new ideas, encourages staff to challenge process, views criticism as valuable)	
Personal Qualities:	
Acting with Integrity (encourages culture of transparency, acts with integrity, stands up for own beliefs, sees principles and values as integral)	Integrity
Being entrepreneurial (insightful in dealing with customer needs, prepared to take risks, good judgement)	n/a
Inspiring others	
Resolving complex problems (isolates core issues in complex problems, thinks creatively)	Problem solving Proactive work management
Leading the Organisation:	
Networking (effecting in networking and gaining collaboration, communicates effectively with stakeholders, promotes the organisation to the outside world)	Use of organisational resources Participative/empowering
Focusing effort (establishes clear goals, clarifies roles and responsibilities, enables individuals to see how work relates to whole organisation)	Proactive work management Participative/empowering
Building a shared vision (effective in gaining support from a wide range of stakeholders, articulates clear vision, involves others in developing vision)	Use of organisational resources Proactive work management
Facilitating change sensitively (takes a broad managerial perspective, uses knowledge and understanding to determine feasibility)	Considerate approach
Creating a culture of development (supportive when mistakes are made, encourages critical feedback)	Managing emotions Considerate approach Participative/empowering

MCPARS Competencies outside of TLQ (Private) Framework:  
Managing conflict, Taking responsibility for resolving issues, sociable

#### Management Competency Framework 4: MLQ 5X

<b>MLQ Framework</b>	<b>MCPARS Mapping</b>
Charisma/Inspirational (encourages pride, goes beyond self interest, has employees respect, displays power and confidence, talks of values, models ethical standards, considers the moral/ethical, emphasises the collective mission, talks optimistically, expresses confidence, talks enthusiastically, arouses awareness of important issues)	Integrity
Intellectual Stimulation (re-examines assumptions, seeks different views, suggests new ways, suggests different angles)	Proactive work management Participative/empowering
Individualised Consideration (individualises attention, focuses your strengths, teaches and coaches, differentiates among us)	Participative/empowering Empathetic engagement
Contingent Reward (clarifies rewards, assists based on effort, rewards your achievement, recognises your achievement)	Considerate approach
Management by Exception (focuses on your mistakes, puts out fires, tracks your mistakes, concentrates on failure)	Considerate approach
Passive/Avoidant (reacts to problems if serious, reacts to failure, if not broke, don't fix it, avoids involvement, absent when needed, avoids deciding, delays responding).	Problem solving Personally accessible

#### SMC Competencies outside of MLQ 5X Framework:

Managing emotions, managing conflict, use of organisational resources, taking responsibility for resolving issues, sociable.

#### Management Competency Framework 5: LBDQ

<b>LBDQ Framework</b>	<b>MCPARS Mapping</b>
Consideration:	Sociable
Is friendly and approachable	Personally accessible
Does little things to make it pleasant to be a member of the group	Sociable
Treats all members as his or her equals	Empathetic engagement Empathetic engagement Integrity
Puts suggestions made by the group into operation	Empathetic engagement Participative/empowering
Gives advance notice of changes	Considerate approach
Looks out for the personal welfare of group members	Considerate approach Empathetic engagement
Is willing to make changes	Proactive work management
Refuses to explain his/her actions (-)	Considerate approach
Acts without consulting the group (-)	Participative/empowering
Keeps to him/herself (-)	Personally accessible Sociable
Initiating structure:	
Lets group members know what is expected of them	Proactive work management
Encourages use of uniform procedures	n/a
Assigns group members to particular tasks	Proactive work management Participative/empowering
Schedules work to be done	Proactive work management
Tries out his or her ideas on the group	Proactive work management
Makes his or her own attitudes clear to the group	Proactive work management
Decides what shall be done and how it will be done	Problem solving Proactive work management Considerate approach
Makes sure that his or her part in the group is understood by group members	n/a
Maintains definite standards of performance	n/a

Asks that group members follow standard rules and regulations	n/a
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MCPARS Competencies outside of LBDQ framework:  
 Managing emotions, managing conflict, use of organisational resources, taking responsibility for resolving issues

Management Competency Framework 6: DTI Inspirational Leadership

<b><i>DTI Framework</i></b>	<b><i>SMC Mapping</i></b>
<b>Creating the future:</b> Ability to demonstrate and communicate shared vision, capacity to focus on long term possibilities and share these. Ability to tell stories, seize market opportunities, clear and focused about purpose of organisation, recognise the things that need to be done to build a sustainable company. <b>Enthusing, growing and appreciating others:</b> Value and enjoy working with people who bring different strengths, adept at building relationships with others in 1-2-1, group and team situations. Good listeners, stimulating, fun, accessible, confident, humble and prepared to be vulnerable. Trust others with responsibility, delegate appropriately and celebrate growth and success of others. <b>Clarifying values:</b> People of honesty and integrity who articulate clear values and the demonstrate them. Contribute more than they consume and model the values they hold. Treat colleagues with dignity and respect, clear about integrity which has to exist between values, goals, structures and behaviour. Inclusive, human and compassionate. Put people and principles before rules <b>Ideas to action:</b> Capacity to think laterally, love innovation, take calculated risks, find new ways of solving problems, see and present alternative ways forward. Put complicated concepts into language that others can make sense of, see and set priorities and work towards them with determination. Naturally curious, love learning, very teachable, take time to reflect, know themselves well.	<b>Proactive work management</b>  <b>Participative/empowering</b> Personally accessible Sociable Empathetic engagement  <b>Integrity</b> Empathetic engagement  <b>Problem solving</b> Proactive work management

Please list those SMC Competencies that do not fit within the DTI Framework:  
 Managing emotions, considerate approach, managing conflict, use of organisational resources, taking responsibility for resolving issues

## Management Competency Framework 7: Ethical Leadership Scale

<i><b>Ethical Leadership</b></i>	<i><b>MCPARS Competencies</b></i>
Listens to what employees have to say	Empathetic engagement Participative/empowering
Disciplines employees who violate ethical standards	Managing conflict
Has the best interests of employees in mind	Empathetic engagement Considerate approach
Makes fair and balanced decisions	Considerate approach Participative/empowering
Can be trusted	Integrity
Discusses business ethics or values with employees	n/a
Sets an example of how to do things the right way in terms of ethics	Integrity
Defines success not just by results, but also the way that they are obtained	n/a
When making decisions, asks 'what is the right thing to do?'	Proactive work management Participative/empowering

Please list those MCPARS Competencies that do not fit within the Ethical Leadership Framework: Managing emotions, problem solving, use of organisational resources, taking responsibility for resolving issues, personally accessible, sociable.

## Management Competency Framework 8: Podsakoff Leader Behaviour Scale

<i><b>Podsakoff Leader Behaviour Scale</b></i>	<i><b>MCPARS Competencies</b></i>
First order leader behaviour factors:	
Has a clear understanding of where we are going	Proactive work management
Paints an interesting picture of the future for our group	Proactive work management
Is always seeking new opportunities for the organisation	Proactive work management
Inspires others with his/her plans for the future	Proactive work management
Is able to get others committed to his/her dream	n/a
Leads by 'doing' rather than simply by 'telling'	Proactive work management Participative/empowering
Provides a good model for me to follow	Participative/empowering Integrity
Leads by example	Integrity
Fosters collaboration among work groups	Participative/empowering
Encourages employees to be 'team players'	Participative/empowering
Gets the group to work together for the same goal	Participative/empowering
Develops a team attitude and spirit among employees	Participative/empowering
Shows us that he/she expects a lot from us	n/a
Insists on only the best performance	n/a
Will not settle for second best	n/a
Acts without considering my feelings	Considerate approach Empathetic engagement
Shows respect for my personal feelings	Empathetic engagement
Behaves in a manner thoughtful of my personal needs	Considerate approach
Treats me without considering my personal feelings	Empathetic engagement

Challenges me to think about old problems in new ways	Proactive work management
Asks questions that prompt me to think	Proactive work management
Has stimulated me to rethink the way I do things	Proactive work management
Has ideas that have challenged me to reexamine some of the basic assumptions about my work	Proactive work management
First order Transactional Leader Behaviour factor	
Always gives me positive feedback when I perform well	Considerate approach
Gives me special recognition when my work is very good	Considerate approach
Commends me when I do a better than average job	Considerate approach
Personally compliments me when I do outstanding work	Considerate approach
Frequently does not acknowledge my good performance	Considerate approach

Please list those MCPARS Competencies that do not fit within the Podsakoff Leader Behaviour Scale: Managing emotions, problem solving, managing conflict, use of organisational resources, taking responsibility for resolving issues, personally accessible, sociable.

#### Management Competency Framework 9: Carless Global Transformational Leadership Scale

<i>Carless Global Transformational Leadership</i>	<i>MCPARS Competencies</i>
Vision – communicates a clear and positive vision of the future	Proactive work management
Staff Development – treats staff as individuals, supports and encourages their development	Empathetic engagement Participative/empowering
Supportive leadership – gives encouragement and recognition to staff	Participative/empowering Considerate approach
Empowerment – fosters trust, involvement and co-operation among team	Participative/empowering
Innovative thinking – encourages thinking about problems in new ways and questions assumptions	Proactive work management
Lead by example – is clear about his/her values and practises what he/she preaches	Integrity
Charisma – instills pride and respect in others and inspires me by being highly competent	Integrity

Please list those MCPARS Competencies that do not fit within the Carless Global Transformational Leadership Scale: Managing emotions, problem solving, managing conflict, use of organisational resources, taking responsibility for resolving issues, personally accessible, sociable.

#### Management Competency Framework 10: Survey of Management Practices

<i>Survey of Management Practices</i>	<i>MCPARS Competencies</i>
Leader Behaviour Scales:	
Clarification of goals and objectives	Proactive work management
Upward communication and participation	Participative/empowering
Orderly work planning	Proactive work management
Expertise	n/a
Work facilitation	Participative/empowering



Feedback	Considerate approach
Time emphasis	Considerate approach
Control of details	Proactive work management
Goal Pressure	Proactive work management
Delegation	Participative/empowering
Recognition for good performance	Considerate approach
Interpersonal relations:	
Approachability (inc. ease of talking with)	Personally accessible
	Empathetic engagement
Team building (inc. making team get along with one another)	Sociable
	Participative/empowering
Interest in employee growth	Participative/empowering
	Empathetic engagement
Building trust	Integrity

Please list those MCPARS Competencies that do not fit within the Survey of Management Practices:

Managing emotions, problem solving, managing conflict, use of organisational resources, taking responsibility for resolving issues.

#### Management Competency Framework 11: Gilbreath & Benson Scale

<i>Gilbreath and Benson Scale</i>	<i>MCPARS Competencies</i>
Shields employees from unnecessary interference so that they can perform their jobs effectively and productively	Proactive work management
Helps employees become proficient in their work	Participative/empowering
Tries to see employees' side of situations	Empathetic engagement
Steps in when employees need help or support	Proactive work management
Values employees as people rather than merely a means of getting work done	Empathetic engagement
Provides information employees need to be successful	Participative/empowering
Provides support and encouragement	Considerate approach
Does what he/she can to make employees' job interesting	Participative/empowering
Allows employees to try and fail without fear of reprisal	Participative/empowering
Encourages employees to ask questions	Participative/empowering
Organises work so that it can be done with minimum supervisory direction	Participative/empowering
Keeps employees informed regarding status of requests they've made	Participative/empowering
Plans to work to level out the load, reduce peaks and bottlenecks	Proactive work management
Balances the workload among employees equitably	Participative/empowering
Shows appreciation for a job well done	Considerate approach
Deals with employee complaints effectively	Managing conflict
Encourages employees to keep physically fit	n/a
Does fun things to keep morale up	Sociable
Shows disinterest in employees' ideas and projects	Participative/empowering
Makes the workplace as pleasant as possible	Empathetic engagement
Is flexible about how I accomplish my job objectives	n/a
Fails to work to the best of his/her ability	Considerate approach
Gets to know employees personally	Proactive work management
	n/a
	Empathetic engagement

Provides support during stressful times	Empathetic engagement
Builds employees' confidence	Empathetic engagement
Makes decisions that affect employees without seeking their input	Proactive work management Problem solving Participative/empowering Considerate approach
Allows for schedule flexibility to meet home related demands	Considerate approach
Tends to leave some employees out of the communication loop	n/a
Makes me feel like part of something useful, significant and valuable	Considerate approach
Does what he/she can to create flexible working arrangements	Empathetic engagement
Allows employees to 'be themselves' without negative consequences	Personally accessible Participative/empowering Proactive work management
Remains aloof from employees	Participative/empowering
Gives me the authority to do my job as I see fit	n/a Proactive work management
Ignores employee suggestions	n/a
Meets employees' (work related) expectations	Proactive work management
Backs employees up on decisions they make in the field	n/a
Focuses employees' attention and energy in positive directions	Proactive work management Managing conflict Personally accessible
Protects employees against undeserved adverse treatment	Integrity
Tends to be guarded (e.g. not open) in his/her communication	Participative/empowering
Acts more like a leader than a boss	Participative/empowering
Creates confusion by failing to communicate needed information	Participative/empowering
Supports employees in seeking transfers and promotions that would benefit them personally	Managing emotions Participative/empowering
Admits when he/she is wrong or makes a mistake	Managing emotions
Is supportive of my ideas and ways of getting things done	Empathetic engagement Participative/empowering
Attracts attention to self at employees' expense	Participative/empowering
Takes time to listen to employees	Empathetic engagement
Involves employees in decision making and gives their input due consideration	Participative/empowering
Is easily threatened by competent employees	Empathetic engagement
Monitors employees' stress levels and takes action if needed	n/a
Helps employees keep work in perspective (e.g. there is more to life than work)	Empathetic engagement
Is receptive to new ideas, alternative solutions etc	Considerate approach
Helps employees become the type of person they'd ideally like to be	Participative/empowering
Helps employees achieve necessary certifications/credentials	n/a
Asks for suggestions	Participative/empowering
Gives employees helpful feedback about their job performance	Participative/empowering
Strikes the proper balance between productivity and employee well-being	Considerate approach
Notifies employees in advance of unusual occurrences	Considerate approach
Detects and takes appropriate action when employees are obviously ill or when their	Proactive work management Empathetic engagement

condition endangers others	
Makes additional resources available when employees need them to complete their work	Proactive work management
Helps employees deal with difficult situations	Managing conflict
	Taking responsibility for resolving issues
Fails to properly monitor and manage group dynamics	Managing conflict
	Taking responsibility for resolving issues
Expresses interest in what employees have to say	Empathetic engagement

Please list those MCPARS Competencies that do not fit within the Gilbreath and Benson scale: Use of organisational resources

#### Management Competency Framework 12: LMX-7

<i>LMX-7</i>	<i>MCPARS Competencies</i>
Do you usually feel that you know where you stand...do you usually know how satisfied your supervisor is with what you do?	Considerate approach
How well do you feel that your immediate supervisor understands your problems and needs?	Empathetic engagement
How well do you feel that your immediate supervisor recognises your potential?	Participative/empowering
Regardless of how much formal authority your immediate supervisor has built into his/her position, what are the chances that he/she would be personally inclined to use power to help you solve problems in your work?	Problem solving
Again, regardless of the amount of formal authority your immediate supervisor has, to what extent can you count on him/her to 'bail you out' at his or her expense when you really need it?	Taking responsibility for resolving issues Proactive work management
I have enough confidence in my immediate supervisor that I would defend and justify his or her decisions if he or she were not present to do so	n/a
How would you characterise your working relationship with your immediate supervisor?	n/a

Please list those MCPARS Competencies that do not fit within the LMX-7:  
Integrity, managing emotions, managing conflict, use of organisational resources, personally accessible, sociable

# Management competencies for preventing and reducing stress at work

Identifying and developing the management behaviours necessary to implement the HSE Management Standards: Phase Two

This report presents the findings of the second phase of a research project to identify the specific management behaviours associated with the effective management of stress at work. This phase aimed to: examine the usability of the 'Management competencies for preventing and reducing stress at work' framework developed in Phase One; refine and revise the framework; and design a 'Stress management competency indicator tool'. An additional aim was to explore the commonalities between the framework and indicator tool on the one hand and the HSE Management Standards and general management measurement tools on the other.

A qualitative approach was used to explore the usability of both the framework and the indicator tool: this involved interviews with 47 managers and 6 stakeholders working within the five HSE priority areas (Education, Finance, Local Government, Central Government and Healthcare), along with one 'Other sector' organisation, and workshops with 38 stress experts. A combined quantitative and qualitative approach was taken to construct the indicator tool and refine and revise the framework: this involved 152 managers and 656 direct reports. Statistical and qualitative evidence was used to create a revised framework that consists of four competencies and 12 sub-competencies. The final indicator tool contains 66 items. A literature review and mapping exercise was conducted to compare the revised framework and emergent indicator tool with the HSE Management Standards and 12 existing management/leadership frameworks.

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