

Improving Occupational Stress Through Emotional Intelligence Development



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Statistics imply that occupational stress is increasing. Whilst certain stressors may transcend individual differences, it is now generally accepted that the experience of stress or negative emotions is moderated by the way in which individuals appraise and perceive their relationship with the environment. Attention is directed to the concept of EI as a moderating variable in the stress process with emerging interest in the role emotions play in the way individuals appraise and respond to potentially threatening events or situations. Theoretically, a higher level of EI results in less occupational stress and better psychological and physical health. The authors developed a stress management programme combining traditional aspects of stress management with EI development (SSMP). The SSMP is described in its use as a training tool that incorporates modification of the stress-causing environment, and skill training in emotional self-management.

Keywords: Emotional Intelligence, occupational stress, psychological well-being

Introduction

In recent years there has been a worldwide increase in work-related mental disorders, affecting all industries and professions. In Australia, stress related claims increased by 37% from 1996-97 to 2002-03 (National Occupational Health and Safety Commission [NOHSC], 2003). While the percentage of stress related claims relative to all other claims is still low, the cost per claim is generally much higher, as is the time absent from work. For example, in 2005-06 mental stress claims accounted for just 5 per cent of all claims but nearly 21 per cent of total claim costs (Comcare, 2006). Reports also indicate that between 1996-97 and 2002-03, employees with compensated claims for mental stress were also absent from work for the longest duration, with the median time lost increasing from seven weeks in 1996-97 to 9.8 weeks in 2001-02 (NOHSC, 2003).

In Australia, the cost of workers' compensation claims for stress-related mental disorders is estimated to exceed \$200 million every year. More importantly, there are other problems associated with work-related stress that surpass the financial considerations (Quick et al., 1986). The

human costs in individual suffering and organisational morale cannot be reduced to quantitative terms. The stress of overwork has been associated with psychological problems such as depression, anxiety, and burnout; physiological health problems, such as hypertension and heart attacks; and organisational problems, including workplace violence and accidents (Quick et al., 1997). Workplace stress may also result in behavioural problems, such as increased alcohol consumption and smoking (Dollard & Winefield, 2002).

The human and financial costs of occupational stress provide a strong mandate for conducting research into the factors that precipitate occupational stress and to identify effective interventions that can be implemented to treat, manage, and, ultimately, prevent the occurrence of this phenomenon.

Occupational Stress. Stress can be defined in a number of ways (Cox, 1993). The *stimulus* definition of stress characterises the construct as characteristic of the environment (e.g. work-related stresses, life events such as bereavement and daily hassles). The *response* definition characterises stress as a person's response to environmental characteristics. *Stimulus* and *response*

based definitions of occupation stress, assume that any stimulus which produces the stress response is a stressor. The problem with these conceptualisations of stress is that neither takes into account individual differences. For example, not all students find University examinations stressful and those that do may have completely different reactions to them. Utilising a *stimulus* or *response* definition of occupational stress for this scenario would assume that all students do experience University examination stress and all students 'experience' that stress in exactly the same way.

In contrast to the *stimulus* and *response* definitions of stress, transactional models of stress emphasise the role of individual factors in moderating the stress response. According to this model, a person experiences stress when the perceived demands of the environment are greater than their perceived ability to cope with them (Lazarus & Folkman, 1984). Importantly, this approach emphasises an individual's perception and evaluation of demands and coping abilities rather than actual demands and actual ability to cope. Whilst certain stressors may transcend individual differences, it is now generally accepted that the experience of stress or negative emotions is moderated by the way in which individuals appraise and perceive their relationship with the environment. The features of the transactional model of stress within the work environment are summarised in Figure 1.

The transactional model of stress has become the leading model in psychological stress research (Vollrath, 2001). Research studies have focused on the role played by individual characteristics such as type 'A' behaviour (Friedman & Rosenman, 1974), locus of control (Parkes, 1984), hardiness (Kobasa, 1979; Kobasa et al, 1982), easy-goingness (Holahan & Moos, 1986), optimism (Scheier & Carver, 1992) and self-esteem (Rector & Roger, 1997) on stress and stress outcomes. In addition to these personality and dispositional variables, stress research has also investigated individual differences in coping resources and styles (Endler & Parker, 1994). Significantly less consideration has been given in the stress-related literature to the investigation of Emotional Intelligence (EI) as an individual difference (Slaski & Cartwright, 2002).

Emotional Intelligence: Emotional intelligence is a relatively new and growing area of behavioural research (Ziedner et al., 2004). Broadly speaking, EI is a set of conceptually related psychological processes involving the

processing of emotion and emotion-related information (Salovey & Mayer, 1990). These psychological processes include the perception and expression of emotion, the integration of emotion with thoughts, understanding emotion, and the regulation and management of emotion.

While there are a number of competing models and measures of EI, the general consensus amongst the academic fraternity is that self-awareness, self-confidence and self-acceptance are fundamental to the development of EI (Bar-On, 1997; Goleman, 1995). Through increased self-awareness, individuals are more able to cognitively 'detach' themselves and the emotions they experience from environmental events. This, therefore, allows individuals to regulate their emotions in order to prevent being 'hijacked' by their emotional reactions (Slaski & Cartwright, 2002). Given emerging interest in the role emotions play in the way individuals appraise and respond to potentially threatening events or situations, attention is turning to the concept of EI as a moderating variable in the stress process (Slaski & Cartwright, 2003).

The relationship between occupational stress and emotional intelligence. Recent research supports a negative relationship between emotional intelligence and occupational stress. Typically, employees who report having higher levels of emotional intelligence report suffering less occupational stress, and report better psychological and physical health (Gardner, 2005; Nikolaou, 2002; Pau & Croucher, 2003; Slaski & Cartwright, 2002, 2003). Research has also found that employees who have higher levels of emotional intelligence are more satisfied with their job and more committed to their organisation (Abraham, 2000; Carmeli, 2003; Gardner, 2005; Nikolaou, 2002). In theory, developmental EI training offers a potentially effective technique for improving individual stress resilience. A seminal study by Slaski and Cartwright (2003) tested this theory and found that EI training was successful in improving EI skills, reducing stress and improving measures of health and well-being in a sample of UK managers.

Based on the theoretical and empirical links between EI and occupational stress, Dr Lisa Gardner and Professor Con Stough from Swinburne University developed a psycho-educational programme to teach employees to manage occupational stress through the development of EI (Gardner, 2005). The guiding premise of this of this programme was that teaching employees to better use EI

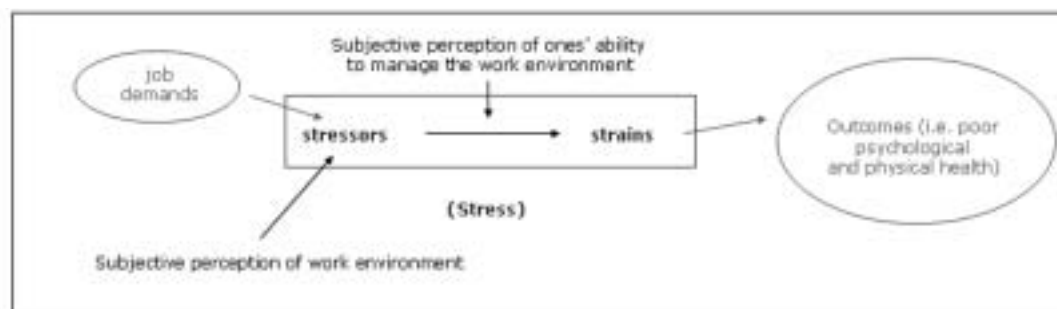


Figure 1: Transactional model of occupational stress

at work will be better equip them to deal with occupational stress. This research culminated in a PhD level dissertation evaluating the efficacy of the emotional intelligence development program, now called the Swinburne Stress Management Programme (SSMP). The SSMP incorporates traditional aspects of stress management (such as learning how to identify stressors and learning to use relaxation techniques to deal with stressors) with EI development (learning how to deal with emotional reactions of the self and others more effectively).

The SSMP aims to equip employees with the skills necessary to deal with the emotions that arise from feelings of stress and to use these skills to prevent health strains, promote more positive feelings of satisfaction, and promote more commitment to the workplace. The programme is a combination of occupational stress and EI measurement, personalised feedback and a small-group psycho education programme.

The SSMP uses the Swinburne University developed model and measure of emotional intelligence (also known as the Genos model and measure of EI) as its framework (Palmer & Stough, 2001). This model of emotional intelligence consists of five factors. The specific factors and underlying capabilities of the Swinburne developed model of EI are presented in Table 1.

How the Swinburne Stress Management Programme educates individuals in how to manage occupational stress

Approaches to managing organisational stress are typically classified as either *primary*, *secondary*, or *tertiary* interventions (Kendall et al., 2000). *Primary* interventions include strategies that aim to prevent the occurrence of work stress (e.g. work design or ergonomics), *secondary* interventions include activities designed to change an individual's reaction to stressors (e.g. relaxation training, cognitive-behavioural techniques and team building), and *tertiary* interventions are those that are used to treat the symptoms of stress and strain after they have been

identified (e.g. Employee Assistance Programs). Whilst organisations can focus on the immediate work environment (primary intervention) and the provision of organisation-wide support (tertiary intervention), the SSMP is designed to provide organisations with a *secondary* intervention to stress management. As such, the SSMP complements both *primary* and *tertiary* intervention approaches

Important features of stress interventions is that they be comprehensive; address the individual, the organisational environment; and the interface between the individual and his or her organisation (Hurrell, 1995). In using EI as the framework for the SSMP, participants receive both traditional stress management strategies to assist them in dealing with work stressors, as well as the opportunity to develop skills to improve his or her organisational environment and relationship they have with the organisation.

Components of the Swinburne Stress Management Programme

The SSMP consists of three primary components: conceptual information about the nature of stress, including its relationship to the emotional intelligence construct and the value of developing emotional intelligence in the workplace; self-assessments as tools to build awareness of individual EI strengths and deficiencies; and skills training to develop personal strategies to improve emotional intelligence and to manage work stressors.

1. Conceptual components. The conceptual components include information about: (1) the interaction effect between environmental demands and personal characteristics in an individual's initial reaction to stressors; (2) the influence of an individual's stress reaction on his or her subsequent thoughts, feelings and actions; (3) the individual consequences of prolonged or chronic stress; (4) how occupational stress is measured; (5) the construct of emotional intelligence; (6) the Swinburne University developed model of emotional intelligence; (7) the five

Dimension	Definition
Emotional Recognition and Expression	The capacity to identify one's own feelings and emotional states and the ability to express those inner feelings to others.
Understanding Others' Emotions	The capacity to identify and understand the emotions of others and those that manifest in response to workplace environments, staff meetings, literature, artwork etc.
Emotional Reasoning	The extent to which emotions and emotional knowledge are incorporated in decision-making and problem solving.
Emotional Management	The capacity to manage positive and negative emotions both within oneself and others.
Emotional Control	The capacity to effectively control strong emotional states experienced at work.

Table 1: The Swinburne University developed model of emotional intelligence

factors of the Swinburne University developed model of emotional intelligence; (8) how emotional intelligence is measured and, (9) specific strategies for developing the five factors of the Swinburne University developed model of emotional intelligence.

2. Self-assessment components. Self-assessments allow participants to personalise the conceptual information provided and the related skills training. Within the SSMP, the self-assessments provide information regarding the frequency with which the participants demonstrate behaviours underpinning the five factors of emotional intelligence, subjective stress levels related to six specific organisational roles, general psychological well-being, and physical health. The self-assessment package consists of the Genos Emotional Intelligence Assessment Scale (formerly the Swinburne University Emotional Intelligence Test; SUIET), a self-assessed behaviour based assessment of workplace EI (Palmer & Stough, 2001); the Occupational Roles Questionnaire from the Occupational Stress Inventory—Revised Edition (Osipow, 1998); the General Health Questionnaire—12 (Goldberg & Williams, 1988) and; a Physical Health Symptoms Questionnaire (adapted from Winefield, Gillespie, Stough, Dua & Hapuararchchi, 2002).

The results generated from the self-assessment questionnaire battery are used to develop an individual's understanding of the relationship between his or her personal characteristics and work stressors. Further, the assessment results are used to improve an individual's self-awareness and self-management capabilities.

3. Skills training components. The skills training focuses on developing stress-management, self-management and emotional intelligence skills. The three main stress management skills taught within the SSMP are: approaches for modifying the environment or situation causing the stress; strategies for how stressful situation(s) are interpreted; and mastering additional skills for deal with stressful situations. Further, the skills training also incorporates three aspects of emotional self-management: *situational*, *renewal* and *preventative*.

Finally, the emotional intelligence skills training within the SSMP involves developing the five dimensions of the Swinburne University developed model of EI. Specific strategies include developing a more expansive emotional vocabulary to improve interpersonal communication; identifying and practicing skills underpinning active listening, such as attending and reflecting skills; practicing the emotional reasoning skills; learning emotional management strategies, such as keeping an emotions diary and using an emotional management planning sheet; and rehearsing better ways to control strong emotions when experiencing stress. The specific components, sequence and specific timings for the SSMP are presented in Figure 2 below (Gardner, 2005).

Evaluating the efficacy of the Swinburne Stress Management Programme

Following the design of the program, a comprehensive empirical evaluation of the program's efficacy was under-

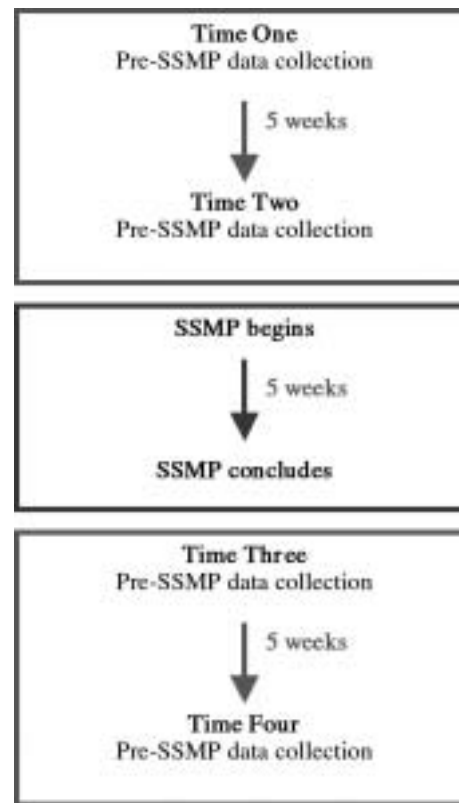


Figure 2: Design of the EI Training Programme

taken (Gardner, 2005). The EI training programme was evaluated in terms of its impact on the following variables: EI enhancement, reductions in reported occupational stress, improvements in psychological health, and physical health. Measures of job satisfaction and organisational commitment were also recorded.

The sample used to evaluate the efficacy of the SSMP consisted of 79 primary and secondary teachers. As shown in Figure 2, baseline measures were taken at two time intervals prior to participation in the EI training program. Participants were also assessed immediately after participation in the programme and at a five-week follow-up interval.

The results indicated that the programme was successful in improving the participant's EI (figure 3), reducing their occupational stress (figure 4) and improving their psychological (figure 5) and physical well-being (figure 6) (Gardner, 2005). These changes were evident immediately after completion of the training programme and were maintained (or improved upon) at the follow-up time period.

REFERENCES

- Abraham, R. (2000). "The role of job control as a moderator of emotional dissonance and emotional intelligence - outcome relationships". *The Journal of Psychology*, 134(2), 169-184.

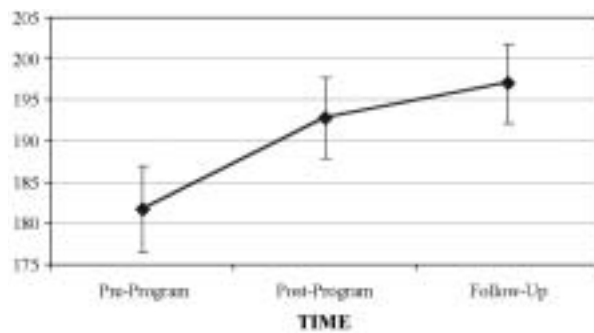


Figure 3: Improvement in EI from pre-programme to follow-up

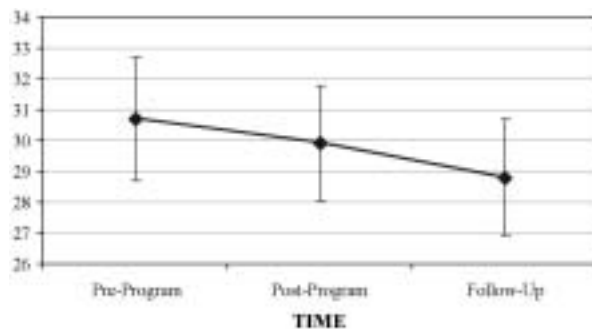


Figure 4: Reduction in perceived role-overload from pre-programme to follow-up

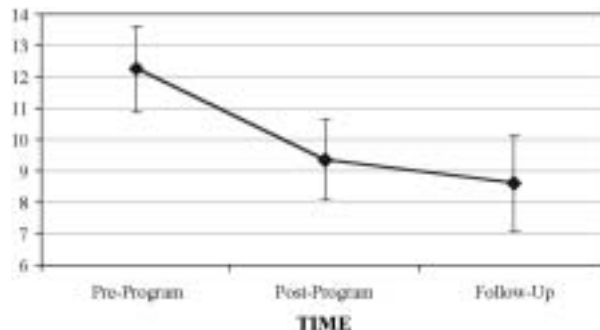


Figure 5: Reduction in psychological strain from pre-programme to follow-up

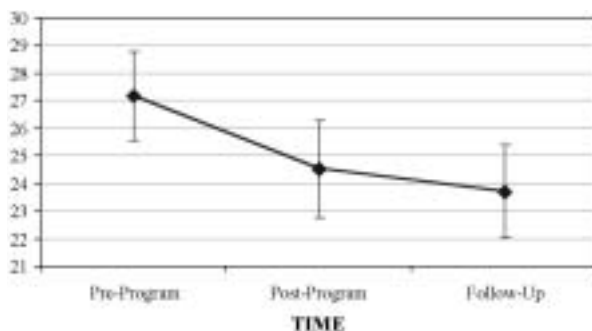


Figure 6: Reduction in physical strain from pre-programme to follow-up

- Bar-On, R. (1997). *Bar-On Emotional Quotient Inventory: A measure of emotional intelligence, technical manual*. (Ed.). Toronto: Multi-Health Systems.
- Comcare. (2006). *Comcare annual report 2005-2006*. Canberra, Australia: Author.
- Carmeli, A. (2003). "The relationship between emotional intelligence and work attitudes, behavior and outcomes". *Journal of Managerial Psychology*, 18, 788-813.
- Cox, T. (1993). *Stress Research and Stress Management*. HSE Books, Sudbury, Suffolk.
- Dollard, M. F., & Winefield, A. H. (2002). "Mental health: Over-employment, underemployment, unemployment and healthy jobs". In L. Morrow, I. Verins, & E. Willis (Eds.), *Mental health promotion and work: Issues and perspectives*. Victoria, Australia: Auseinet & VicHealth.
- Endler, N. S., & Parker, J. D. A. (1994). "Assessment of Multidimensional Coping: Task, Emotion, and Avoidance Strategies". *Psychological Assessment*, 6(1), 50-60.
- Friedman, M., & Rosenman, R. H. (1974). *Type A behaviour and your heart*. New York: Knopf.
- Gardner, L. (2005). *Emotional Intelligence and Occupational Stress*. Unpublished dissertation. Hawthorn, Australia: Swinburne University of Technology.
- Goldberg, D., & Williams, P. (1988). *A Users Guide to the General Health Questionnaire*. Windsor, UK: NFER-Nelson.
- Goleman, D. (1995). *Emotional Intelligence*. London: Bloomsbury.
- Holahan, C. J., & Moos, R. H. (1986). "Personality, coping and family resources in stress resistance: A longitudinal analysis". *Journal of Personality and Social Psychology*, 51, 389-395.
- Hurrell, J. J. (1995). "Police work, occupational stress, and individual coping". *Journal of Organisational Behaviour*, 16, 27-28.
- Kendall, E., Murphy, P., O'Neill, V., & Bursnall, S. (2000). *Occupational stress: Factors that contribute to its occurrence and effective management*. Canberra, Australia: Centre for Human Services, Griffith University.
- Kobasa, S. C. (1979). "Stressful life events, personality and health: An enquiry into hardiness". *Journal of Personality and Social Psychology*, 37, 1-11.
- Kobasa, S. C., Maddi, S. R., & Kahn, S. (1982). "Hardiness and health: A prospective study". *Journal of Personality and Social Behaviour*, 42, 168-177.
- Lazarus, R.S., & Folkman, S. (1984). *Stress, Appraisal and Coping*. New York: Springer Publishing Company.
- National Occupational Health and Safety Commission (NOHSC). (2003). *Compendium of workers' compensation statistics, Australia, 2000-2001*. Canberra, Australia: Author.
- Nikolaou, I. (2002). "Emotional intelligence in the workplace: Exploring its effects on occupational stress and organisational commitment". *International Journal of Organisational Analysis. Special Issue on Emotional Intelligence*, 10, 327-342.
- Osipow, S.H. (1998). *Occupational Stress Inventory Revised Edition (OSI-R)*. USA: Psychological Assessment Resources.
- Palmer, B., & Stough, C. (2001). *Workplace SUEIT: Swinburne University Emotional Intelligence Test - Interim Technical Manual*. Hawthorn, Australia: Swinburne University.
- Parkes, K. R. (1984). "Locus of control, cognitive appraisal, and coping in stressful episodes". *Journal of Personality and Social Psychology*, 46, 655-668.
- Pau, A. K., & Croucher, R. (2003). "Emotional Intelligence and perceived stress in dental undergraduates". *Journal of Dental Education*, 67(9), 1023-1028.

- Quick, J. C., Quick, J. D., Nelson, D. L., & Hurrell, J. J. (1997). *Preventative stress management in organisations* (2nd ed.). Washington, DC: American Psychological Association.
- Quick, J. D., Horn, R. S., & Quick, J. C. (1986). "Health consequences of stress". *Journal of Organisational Behaviour*, 8, 19-36.
- Rector, N. A., & Roger, D. (1997). "The stress buffering effects of self-esteem". *Personality and Individual Difference*, 23(5), 799-808.
- Salovey, P., & Mayer, J.D. (1990). "Emotional intelligence". *Imagination, Cognition and Personality*, 9, 185-211.
- Scheier, M. F., & Carver, C. S. (1992). "Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update". *Cognitive Therapy and Research*, 16(2), 201-228.
- Slaski, M., & Cartwright, S. (2002). "Health, performance and emotional intelligence: an exploratory study of retail managers". *Stress and Health*, 18, 63-68.
- Slaski, M., & Cartwright, S. (2003). "Emotional intelligence training and its implications for stress, health and performance". *Stress & Health*, 19 233-240.
- Vollrath, M. (2001). "Personality and stress". *Scandinavian Journal of Psychology*, 42, 335-347.
- Winefield, A.H., Gillespie, N., Stough, C., Dua, J., & Hapuararchchi, J. (2002). *Occupational Stress in Australian universities: A national survey*. (Ed.). Victoria, Australia: The National Tertiary Education Union.
- Ziedner, M., Matthews, G., & Roberts, R. D. (2004). "Emotional Intelligence in the workplace: A critical review". *Applied Psychology: An International Review*, 53(3), 371-399.

BIOGRAPHICAL NOTE

Dr Karen Hansen is Postdoctoral Research Fellow, Brain Sciences Institute (BSI), Swinburne University of Technology. Karen coordinates the Emotional Intelligence Research Unit at the BSI and is involved in a number of ongoing studies investigating the efficacy of different EI development programs to improve emotional intelligence. KHansen@groupwise.swin.edu.au

Dr Lisa Gardner is the Manager of Training at Atlantis Systems in Canada. She is currently working on implementing a number of development programs and is continuing her work on EI and workplace stress. Dr Gardner completed a PhD at Swinburne University of Technology which involved the creation of a comprehensive stress management programme focused on the development of EI. Through statistical analysis Dr Gardner has demonstrated that dimensions of EI can be developed in adults.

Professor Con Stough has an extensive track record in research and consulting and has published more than 70 peer-reviewed international expert papers in the area of psychology and psychological development. Con's recent work is in the area of developing interventions to improve emotional intelligence and has several ongoing studies with Australian companies assessing the efficacy of different development programs. Professor Stough's work is focussed on improving the inter-personal skills of Australian leaders and workers.