

# SCREENING AND MANAGEMENT OF THE WORKPLACE FOR CVD RISK

## INDIVIDUAL STRESS MANAGEMENT: EFFECTIVE OR NOT?

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Individual stress-management interventions are defined as techniques designed to help employees modify their appraisal of stressful situations or deal more effectively with symptoms of stress. Diversity of stress techniques, use of varying health outcome measures, and methodological limitations make it difficult to reach firm conclusions about the efficacy of stress-management interventions. Current research suggests that individual stress-management interventions generally are effective in reducing negative individual health outcomes, but do not consistently affect job/organization-relevant outcomes such as absenteeism, turnover, productivity, and job satisfaction.

Concern with the effects of occupational stress on productivity, absenteeism, and health-related problems have increased dramatically during the past decade.<sup>88</sup> Although causal relations between job stressors and outcomes have not been conclusively demonstrated, associations between specific types of job stressors (e.g., job strain), individual (e.g., physiologic) and organizational (e.g., job satisfaction) outcomes have been observed consistently.<sup>71,84</sup> These outcomes, regardless of the antecedents, inevitably generate high organizational medical care expenditures, litigation, and operational costs. Organizations have been making efforts to implement individual stress-management interventions to reduce the cost associated with these negative consequences.

According to Ivancevich, Matteson, Freedman, and Phillips, worksite stress-management interventions refer to any cooperative action initiated by an organization for reducing the presence of work-related stressors, or for helping individuals to reduce and/or cope with the negative consequences of these stressors.<sup>43</sup> The goals of these interventions are to reduce specific occupational stressors,<sup>53</sup> modify individual's cognitive appraisal of stressful events,<sup>64</sup> or help individuals cope more effectively. Stress-management interventions traditionally implemented in the worksite can be categorized by the type of exposure the intervention is designed to reduce or eliminate, including: environmental (e.g., chemical and biologic stressors), physical and ergonomic (e.g., noise, rotating shiftwork, equipment); and psychosocial. Psychosocial interventions are aimed at various points in the stress process and can be classified as **organizational change** (*primary interventions*), **stress reduction** (*secondary interventions*), or **stress treatment**, such as employee assistance programs (*tertiary interventions*).

Organizational change interventions focus on identifying worksite stressors, either through comprehensive assessments and modifications<sup>46</sup> or participatory processes during which employees identify stressors and develop solutions.<sup>57</sup> Participatory processes typically include enhanced employee involvement in decision-making, job redesign, participatory action research, autonomous work teams, re-engineering, team building, and 360-degree feedback.

The first type of stress reduction intervention focuses on developing **individual strategies** for alleviating stress-related symptoms. It is the most common type in the workplace. Some examples include progressive muscle relaxation, visualization, biofeedback, meditation, and exercise. The second type of stress reduction intervention is assumed to occur through increased confidence and **interpersonal coping skills**. Examples include assertiveness training, conflict management, communication skills, and leadership development. The third type of stress reduction intervention is assumed to occur through increased **intrapersonal awareness** and insight of cognitive and affective reactions to job stressors. Examples include cognitive restructuring, stress inoculation training, and cognitive-behavioral skills training.

Evidence of the success of occupational stress management interventions generally is confusing and imprecise in light of the considerable heterogeneity of published studies. Interpretation of the occupational stress management literature is difficult because of numerous methodological and conceptual issues, including the use of diverse measures of stressors, moderator variables, strains, and health outcomes; short-term evaluation periods; and a preponderance of self-report measures often confounded with negative affectivity.<sup>42,71,76</sup> Despite these issues, the practicality and effectiveness of worksite stress-management interventions generally support individual, but not organizational, impact.<sup>9,19,46,71,109</sup> Overall, it appears that individual stress management interventions may have a positive effect, but if employees return to an unchanged work environment and its intrinsic stressors, those beneficial effects are likely to be eroded. Published studies suggest that the differential effectiveness of worksite stress-management interventions may depend entirely on the unique individual and organizational outcomes targeted.<sup>9,84,109</sup> A comprehensive review of the occupational stress-management literature allows a summary of the effectiveness of individual-oriented techniques on diverse health and organizational outcomes:

1. Subject matter experts in the occupational stress management field rated **relaxation** as the most practical and least expensive intervention, and the easiest to implement. With respect to effectiveness, exercise and muscle relaxation were considered to be the most effective interventions to alter somatic symptoms and psychological outcomes, whereas stress inoculation and assertiveness training were rated least effective.<sup>9</sup>

2. Stress-management interventions that include a **combination of training techniques** (e.g., muscle relaxation and cognitive-behavioral skills training) seemed to produce the most consistent and significant results across diverse health-outcome measures. The combination of relaxation and cognitive strategies appears to be the most effective type of individually oriented worksite stress-management intervention.<sup>71,72</sup>

3. As the main intervention technique, **biofeedback** appeared to be used least frequently of all interventions, and its effects on most health-outcome and job/organizational measures appeared unremarkable.<sup>71</sup>

4. Recent research examining the impact of **lifestyle and health programs** (e.g., exercise) shows consistently positive effects on psychological outcomes (e.g., depression), but the benefits may not be sustained. Ivancevich, et al. suggest that,

after a short time, 70% of individuals fail to maintain long-term commitment to exercise habits and are likely to revert to their previous lifestyle.<sup>43</sup>

5. In assessing the efficacy of stress-management interventions on *specific* outcomes, relaxation appears to consistently produce significant effects on some physiologic outcomes (e.g., blood pressure) and little change on other outcomes. **Cognitive-behavioral skills** training was the single intervention technique most frequently cited in stress management studies and produced the most consistent effects on psychological outcomes, particularly anxiety. For somatic complaints, a combination of stress-management techniques appears most effective, and for job/organizational outcomes, job redesign, participatory action research, autonomous work teams, and organizational change interventions appear to be the most effective.<sup>71,72,77,84</sup>

6. None of the **individual stress-management interventions** were consistently effective in producing effects on job/organization-relevant outcomes such as absenteeism, turnover, accidents, health care costs, productivity, or job satisfaction. Murphy found that of individual stress-management strategies, cognitive techniques produced changes in job/organizational measures in 75% of the studies he reviewed.<sup>71</sup> However, in most of these studies cognitive techniques were associated primarily with subjective (e.g., job satisfaction) and not objective endpoints (e.g., absenteeism, productivity).

7. Recent findings suggest that **participatory organizational change** efforts (e.g., job redesign, participatory action research, and autonomous work teams) may be particularly effective in reducing or eliminating specific occupational stressors (e.g., job strain), and as a result, affecting both diverse individual and organizational outcome measures (e.g., productivity, blood pressure).<sup>46,109</sup>

Researchers have assessed the effectiveness of various stress-management interventions practiced in the workplace. Current research suggests that the effects of any one type of individual or organizational outcome typically depend on the specific stress-management technique used. Researchers and practitioners should continue to design and evaluate more comprehensive stress-management programs that attempt to change stressful aspects of the work environment as well as help individual employees learn to manage stress through improved coping. To maximize the effectiveness of occupational stress-management interventions, practitioners should attempt to integrate current findings on individual and organizational change, including readiness to change models,<sup>87</sup> relapse prevention,<sup>66</sup> transfer of training,<sup>4</sup> job redesign,<sup>37</sup> and participatory action research.<sup>46</sup>

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