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Cochrane Nursing Care Field – Cochrane Review Summary

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Research in Nursing and Health Journal

Preventing occupational stress in healthcare workers

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- ## **Background**:

The National Institute for Occupational Safety and Health (NIOSH) defines occupational stress as 'the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources or needs of the worker" (NIOSH, 2008). Healthcare workers have been identified as high risk for occupational or work-related stress due to exposure to stressors at work. For example, in the United Kingdom, the healthcare sector has the highest estimated prevalence of work-related stress (HSE, 2013). This stress is a consequence of organisational factors and a mismatch between demands, skills and social support at work, or any combination of these. Factors that have been shown to increase the risk of stress include increasing workload, emotional response to contact with suffering and dying patients and organisational problems and conflict (Payne, 1987, McNeely, 2005). A European survey on working conditions found that the healthcare sector rated highest on two significant causes of stress: hiding ones' own emotions and adverse social behaviour (Eurofound, 2012).

The consequences of occupational stress on healthcare workers include severe distress, burnout or psychosomatic diseases and a corresponding decline in quality of life and their quality of care or service provision (Weinberg, 2000). There is also an economic impact to healthcare organisations through increased rates of absenteeism and turnover (Jacobson, 1996; Raiger, 2005) and compensation claims (Williamson, 1994).

Strategies to combat occupational stress include:

- Cognitive-behavioural training (CBT), where new ways are provided for the person to feel, think and act in stressful situations.
- Mental or physical relaxation techniques, that work by diverting attention away from unpleasant and stressful thoughts and feelings and help to foster resilience in the person.
- Organisational interventions, where work practices are adjusted to match and make better use of workers' capabilities, and so help to prevent stressful events from occurring (Ruotsalainen et al, 2015).

- ## **Objective/s:**

This review aimed to determine the effectiveness of work and person-directed interventions compared to the control of no intervention or alternative passive or active interventions in preventing occupational stress in healthcare workers.

- ## **Intervention/Methods:**

The review included randomised controlled trials (RCTs) of interventions aimed at preventing psychological stress in healthcare workers. Interrupted time-series and controlled before-and-after (CBA) studies were also included when evaluating organisational interventions. Participants in included studies were healthcare workers officially employed in any healthcare setting as well as student nurses or physicians on clinical placements.

The primary outcome measures considered in this review were all validated self-reported questionnaires measuring occupational stress or burnout, for example the Maslach Burnout Inventory (MBI).
The secondary outcomes assessed included measures of the detrimental effects of stress or burnout, including:

- Psychological symptoms, for example anxiety and depression;
- Physical symptoms and physiological parameters, for example hormone levels such as corticosteroids;
- Measures on the cost effectiveness of interventions.

The effects were considered over three time periods:

- Up to one month;
- One to six months;
- Over six months.

• Results:

In total, 58 studies were included in this review, which included 3592 participants in the intervention groups and 3296 in the controls. There were 42 RCTs, eight cluster-randomised trials, four cross-over studies and four controlled before-and-after studies of a work-directed intervention. Review authors judged 40 of the included studies to have a high risk of bias and only one to have a low risk of bias overall.

The review authors report low-quality evidence that CBT interventions, with or without relaxation techniques, reduce the levels of burnout symptoms in healthcare workers when compared to no intervention at one to six months (eight studies with 549 people) and more than six months follow up (two studies with 157 people). There is no significant difference at less than one month. This translates to a decrease in stress levels of 13%, which the review authors rated as a modest effect. The review authors found no significant differences when comparing CBT with other active interventions .

The reductions in stress levels achieved with relaxation techniques were comparable with those of CBT. There is low-to-moderate level evidence that stress levels remain lower at one month follow (four studies with 97 people), one to six months (12 studies with 521 people) and at more than six months (one study with 40 people). The review authors identified no significant differences between physical relaxation methods, fox example massage, or mental relaxation such as mindfulness meditation.

The results for organisational interventions were largely based only on single studies. While there is low-quality evidence that changing work schedules reduce stress levels (two studies), other organisational interventions did not lead to considerable reductions of stress levels at any of the three follow up times.

• Conclusions:

CBT and physical and mental relaxation methods yield modest decreases in stress levels in healthcare workers compared to no intervention, however the authors caution that the evidence for this was of low-

quality. Organisational interventions, such as improving work conditions, organising support or organising special care models does not lead to considerable effects on stress levels, however this finding is based on a limited number of studies. There is low quality evidence that changing work schedules reduces stress levels.

- **Implications for Practice:**

Occupational stress is a significant workplace issue in healthcare, and one that can be expected to be an ongoing concern as healthcare systems deal with ageing populations and complex patients with multiple comorbidities. The consequences to healthcare staff are significant and include physical and psychological signs and symptoms that can be long-lasting in nature, and can result in higher rates of absenteeism and turnover. In addition there is a detrimental effect on service delivery which can lead a reduction in the quality of care afforded patients and an increase in errors and adverse events. Therefore, research in this area should remain a priority and interventions that can help mitigate stress should be available and accessible to all healthcare staff.

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