Bullying/Stress/Violence

**EFFECTIVENESS OF ORGANIZATIONAL INTERVENTIONS TO PREVENT OCCUPATIONAL BURNOUT: A SYSTEMATIC REVIEW AND META-ANALYSIS**

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**Objectives** To assess the efficacy of organizational interventions on primary and secondary prevention of occupational burnout.

**Methods** We searched in PubMed, EMBASE, PsycINFO, and Cochrane Library databases (since inception until the 31.05.2022) experimental or quasi-experimental controlled studies that reported the effect of preventive intervention on organizational or combined level on occupational burnout. We used Cochrane Collaboration's tool for randomized and non-randomized interventions to assess the risk of bias. Studies reporting emotional exhaustion score mean before and after intervention in both treatment and control groups were meta-analysed using the random-effect model. The effect size was estimated as Morris (2008) dppc2.

**Results** From the 2425 identified records, we assessed 228 full texts for eligibility and included 23 studies. Among them, four implemented combined and 19 organizational interventions. The latter were either participatory interventions (n=13) or focused on workload (n=4) and work-schedule (n=5), or other. The risk of bias was low in seven studies, high in another seven studies, and unclear otherwise. Eleven studies were included in meta-analysis. Overall, the meta-estimate of dppc2 was -0.33 (95%-CI=-0.41;-0.26).

**Interventions** focused on workload and participatory interventions had a stronger effect, while interventions focused on work schedule had no effect. The effect-size varied by the follow-up duration.

**Conclusion** Interventions at organizational level in workplaces can prevent or reduce burnout. Several types of interventions showed a moderate effect on emotional exhaustion. However, the evidence is still limited, due to a small number of studies and a high heterogeneity between them. This calls for further research, using participatory interventions at organizational level, especially in sectors with high risk of stress and burnout.

Carcinogens/Cancer

**COHORT STUDY OF WORKERS IN THE UK GLASS-REINFORCED PLASTICS MANUFACTURING INDUSTRY**

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**Introduction** Potentially high occupational exposures to styrene occur, largely in the absence of other chemicals, in the manufacture of glass-reinforced products. Styrene is also present in air pollution and tobacco smoke. The Health and Safety Executive's (HSE) styrene cohort was previously included in an international pooled cohort study coordinated by the International Agency for Research on Cancer (IARC). An update to this study is currently being coordinated by researchers at Aarhus University. This update will include an updated exposure assessment. In 2019, IARC published its updated evaluation of the carcinogenicity of styrene and styrene-7,8-oxide, a metabolite of styrene in humans. IARC concluded that both agents were probably carcinogenic to humans (Group 2A).

The HSE cohort has never been separately analysed. It is only a small cohort (c 1800 participants), but it has long follow-up. It will contribute to the updated international study. Primary interest is in haematopoietic cancers, although other cancer sites such as esophagus, nose and nasal cavities and lung are of interest too.

**Materials and Methods** Research governance clearances were obtained from NHS Ethics, HRA Confidentiality Advisory Group and NHS Digital IGARD. Work is currently underway as 10.1136/OEM-2023-EPICOH.161 on 14 March 2023. Downloaded from http://oem.bmj.com/ on November 2, 2023 by guest. Protected by copyright.