

Economic analyses of workplace mental health/substance use interventions: a systematic literature review and narrative synthesis

Claire de Oliveira, Edward Cho, RuthAnne Kavelaars, Margaret Jamieson, Buddy Bao, Srinivasan Govindaraj, Shazmeera Qadri, and Jürgen Rehm

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Executive Summary

Background: Workplace mental health/substance use disorders have been increasingly recognised as a problem in most developed countries; addressing this will not only improve workers' wellbeing and productivity, but can also yield a return for employers. We sought to review the existing literature and provide a list of the highest yielding and most cost-effective interventions by disorder.

Methods: We included all studies which examined mental health/substance use workplace interventions targeting employed adults and that included an economic analysis. PubMed, MEDLINE, Embase, CINAHL, PsycINFO, Web of Science Core Collection, Scopus, EconLit, Business Source Premier, Health Business Elite, NHS Economic Evaluation Database, Health Technology Assessment Database, Database of Abstracts of Reviews of Effects, and Cochrane Library (from January 1, 2000 to December 31, 2018), reference lists of included studies and reviews, and additional sources were systematically searched and screened by two independent reviewers. All relevant studies that met the inclusion criteria were then appraised for reporting and methodological quality. Evidence synthesis was undertaken only on studies deemed of high quality. The study protocol was registered with PROSPERO, number CRD42019137421.

Findings: We identified 11,018 articles, of which 56 studies were ultimately included in the systematic review. We found moderate evidence that cognitive-behavioural therapy is cost-saving (and cost-effective in some cases) to address depression, strong evidence that the regular and active involvement of occupational health professionals is cost-saving and cost-effective in reducing mental health-related sick leave and encouraging return to work, and moderate evidence that coverage for smoking cessation drugs (such as varenicline and bupropion) and brief counselling are both cost-saving and cost-effective.

Interpretation: Addressing workplace mental health/substance use will not only address workers' wellbeing and productivity but can also benefit employers' bottom line. Nonetheless, there is still scope for improvement in terms of quality of economic evaluations of workplace mental health/substance use interventions.

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Detailed Summary

Background and Objective

Mental illness is the leading cause of disability in the workplace in Canada; it costs the Canadian economy an estimated \$51 billion per year, the majority of which is made up of indirect costs. At least 500,000 Canadians miss work each week due to mental illness. Furthermore, mental illness is the primary cause of short- and long-term disability leave in Canada, accounting for 30% of disability claims and 70% of disability costs; as a result, workplace mental health/substance use disorders have been increasingly recognised as a problem in most developed countries. Addressing workplace mental health/substance use will not only improve workers' wellbeing and productivity, but can also yield a return for employers. As a result, we sought to review the existing literature and provide a list of the highest yielding and most cost-effective interventions by disorder.

Methodology

We included all studies which examined mental health/substance use workplace interventions targeting employed adults and that included an economic analysis. PubMed, MEDLINE, Embase, CINAHL, PsycINFO, Web of Science Core Collection, Scopus, EconLit, Business Source Premier, Health Business Elite, NHS Economic Evaluation Database, Health Technology Assessment Database, Database of Abstracts of Reviews of Effects, and Cochrane Library (from January 1, 2000 to December 31, 2018), reference lists of included studies and reviews, and additional sources were systematically searched and screened by two independent reviewers. All relevant studies that met the inclusion criteria were then appraised for reporting and methodological quality. Evidence synthesis was undertaken only on studies deemed of high quality. The study protocol was registered with PROSPERO, number CRD42019137421.

Findings

We identified 11,018 articles, of which 56 studies were ultimately included in the systematic review. The majority of interventions focused on depression or smoking or examined multiple mental health disorders. Most studies were undertaken in the US, followed by the Netherlands. A substantial number of studies did not specify the sector; furthermore, many studies did not mention the size of the firm where the intervention was implemented. We found 23 studies of high quality, 25 of fair quality, 7 of poor quality, and 1 of extremely poor quality. Based on studies deemed high quality, we found moderate evidence that cognitive-behavioural therapy is cost-saving (and cost-effective in some cases)

to address depression, strong evidence that the regular and active involvement of occupational health professionals is cost-saving and cost-effective in reducing mental health-related sick leave and encouraging return to work, and moderate evidence that coverage for smoking cessation drugs (such as varenicline and bupropion) and brief counselling are both cost-saving and cost-effective.

Strengths and Limitations

Our review presents several strengths. We included a longer time frame and a more comprehensive search strategy than previous reviews. We considered literature published in other languages besides English. We searched many academic and grey literature databases and we explored other potentially relevant sources of information, such as websites and content experts. Moreover, our review included studies with a focus on substance use in the workplace, which have typically not been included in previous reviews. However, this review is not without limitations. Given the heterogeneous nature of the studies, it was challenging to synthesise the evidence by industry/sector or country. To assess the quality of the studies, we used the CHEERS and QHES checklists, which are not without limitations. Finally, despite going to great lengths to ensure our review was comprehensive, we cannot guarantee that some relevant studies were missed, in particular studies from the grey literature.

Conclusions

There has been a growing recognition of the importance of addressing mental health/substance use disorders, in particular in the workplace. We found moderate evidence that cognitive-behavioural therapy is cost-saving (but not always cost-effective) to address depression, moderate evidence that coverage for smoking cessation drugs (such as varenicline and bupropion) is both cost-saving and cost-effective, and strong evidence that the regular and active involvement of occupational health professionals is both cost-saving and cost-effective in reducing mental health-related sick leave and encouraging return to work. Despite a reasonable number of high quality studies, there is still scope for improvement in terms of quality of economic evaluations of workplace mental health/substance use interventions. These findings will be of value to employers, policy makers in the labour and health arenas as well as other interested stakeholders looking for solutions to address workplace mental health/substance use.