

Mental Health and Nutrition at the Workplace

EVIDENCE ON THE FOUR PILLARS TO EXCEL IN WORKFORCE NUTRITION

This evidence brief focuses on the link between mental health and nutrition. The evidence will be presented using the Workforce Nutrition framework’s four pillars of workforce nutrition programmes, which are Healthy Food at Work, Nutrition Education, Nutrition Focused Health Checks, and Workplace Breastfeeding Support.

i Understanding mental health

In this evidence brief, the WHO’s definitions of mental health and mental health conditions are used:

- **Mental health:** ‘A state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community. It is an integral component of health and well-being that underpins our individual and collective abilities to make decisions, build relationships and shape the world we live in¹⁴.’
- **Mental health conditions:** ‘Mental health conditions include mental disorders and psychosocial disabilities as well as other mental states associated with significant distress, impairment in functioning, or risk of self-harm¹⁴.’

Introduction

Mental health disorders are on the rise. The COVID pandemic triggered a 25% increase in the prevalence of anxiety and depression globally⁴, costing the global economy more than \$1 trillion annually in lost productivity⁵: a financial loss for both society and employers.

Addressing mental health is ideally part of a holistic approach^{6,7}, which should include ‘healthy nutrition’ as there are positive synergies between mental and nutritional health⁷⁻¹⁵. Since most adults spend one-third of their lives at work, employers could play an important role in supporting mental and nutritional health of employees at worksites¹⁶. Workforce nutrition is an emerging field of programming that seeks to improve the health of workers through nutrition programmes in or through the workplace.

Workforce nutrition has four pillars of effective programmes for improving nutrition of workers. This article reviews some of the recent evidence on the direct and indirect associations between mental health disorders and nutrition, presenting the evidence according to each of the four pillars (Figure 1).

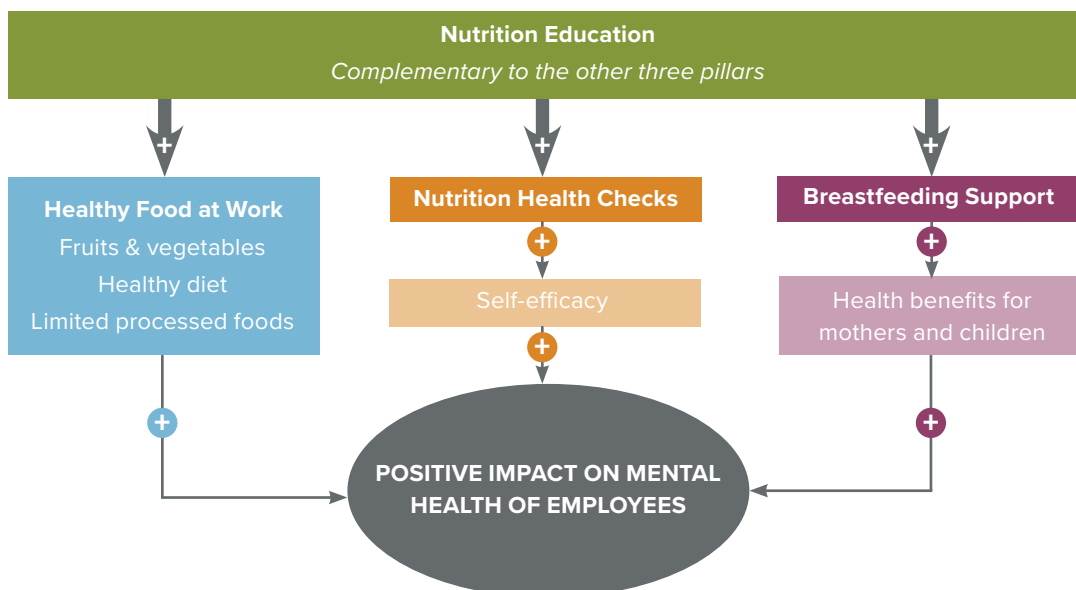


Figure 1. Positive associations between the four pillars of WNA and mental health of employees.

i Food insecurity exacerbates mental health conditions

Food insecurity is positively related to the risk of depression¹⁻³. In a cross-sectional study (n = 34,129), older adults from six low- and middle income countries (LMIC) who were food insecure were two times more likely to suffer from depression compared to people experiencing no food insecurity². A systematic review and meta-analysis (n = 169,433) demonstrated a strong association between food insecurity and depression, anxiety and sleep disorders³. As food insecurity is an underlying factor of mental health conditions, it should be taken into consideration when implementing mental wellbeing programmes.



Healthy Food at Work

Healthy food at work encompasses vending machine, canteens, cafeterias, kiosks, meeting snacks made available through employers, often at worksites. Dietary interventions at the worksite may contribute to reducing the mental health burden, which in turn might reduce health care costs for employers¹². There are multiple pathways in which healthy food at work can improve mental health.

Fruits and vegetables

Three systematic reviews assessed the association between fruit and vegetable consumption and mental health in a healthy, adult population^{5,8,11}. Two of these reviews showed that most studies supported the evidence of the association between fruit consumption and a decreased risk of developing depression and a reduced level of psychological distress^{5,8}. However, inconsistent results were observed when the effects of vegetable consumption on mental health were analysed independently from fruits⁸. Therefore, a systematic review of ten prospective studies (n = 33,645) was performed to synthesize and evaluate research investigating the effects of vegetable consumption on the mental and psychological health of a healthy, adult population. The results indicated a preferential effect of vegetables, but more research is needed to inform nutrition-based interventions¹¹.

Healthy diet

The Mediterranean diet is an example of a healthy eating pattern. It is high in fruits, vegetables, whole grains, legumes, seafood, nuts, seeds, and olive oil

while being low in processed fast foods, red meat, and sugar¹⁵. This diet has been associated with reduced mortality and morbidity from various diseases, and research is emerging on its positive influences on mental health¹⁶. An RCT including 152 healthy adults of Australia and New Zealand found that a Mediterranean diet improves depression by 45% and enhances overall mental health, based on the Depression Anxiety Stress Scale, the Assessment of Quality of Life, and the Positive and Negative Affect Scale⁶. Another RCT targeting young men with clinical depression (n = 72), highlighted the important role of nutrition in the treatment of depression¹⁵. The risk of depressive symptoms, based on the Beck Depression Inventory Scale II, is also 36% lower when adhering to a Mediterranean diet according to a systematic review and meta-analysis of 11 studies (n = 101,950)⁷. Lastly, a systematic literature review including 35 studies (n = 10,301) focused on the influence of polyphenols in a Mediterranean diet found both an association between polyphenol consumption in a Mediterranean diet and depression risk, as well as evidence suggesting polyphenols can effectively alleviate existing depressive symptoms¹⁶.

Processed foods

Two systematic reviews and a meta-analysis (n = 101,950 and n = 103,022) suggest that a pro-inflammatory diet, which is a diet high in processed foods, is associated with the increased likelihood of depression diagnosis or depressive symptoms^{7,10}. Furthermore, the results of another systematic review and meta-analysis of 17 studies showed a significant association between red and processed meat intake and the risk of depression (n = 241,738)⁹.



Breastfeeding Support

Exclusive breastfeeding for at least the first six months does not only benefit the mental health of children but also the mental health of breastfeeding mothers^{17,18}.

Benefits for mothers

A recent systematic review of 36 studies about the relation between breastfeeding and maternal mental health found that breastfeeding was associated with improved maternal mental health outcomes¹⁹. However, difficulties and discordance between maternal role expectations and actual experience were associated with poorer mental health outcomes¹⁹. Moreover, a longitudinal cohort study (n= 186,452 women) emphasized the negative association between breastfeeding and the risk of postpartum anxiety and depression, and investigated the effects of breastfeeding on hospital admissions for postpartum mental disorders¹⁸. The first hospital admission for the diagnosis of overall mental illness was 32 days earlier in non-breastfeeding mothers compared to those who exclusively breastfed¹⁸.

Benefits for children

A cohort study in Brazil (n = 5914) investigated the association between breastfeeding and mental health outcomes in young adults, whose information about breastfeeding was gathered during their early childhood²⁰. Breastfeeding for at least six months reduced the odds (OR = 0.69) of having more severe depressive symptoms in young adults. In addition, based on cross-sectional data from an Irish cohort study (n = 8357), being breastfed in infancy was associated with a 26% reduction in the risk of having abnormal Strengths and Difficulties scores at 9 years. This affirms that being breastfed (at all or exclusively) in infancy may protect against poor mental well-being in childhood²¹.

Conclusion

Healthy food at work and breastfeeding support are both directly associated with better mental health outcomes. Nutrition education and nutrition focused health checks have indirect positive effects on mental wellbeing. Since food insecurity is positively associated with depression and anxiety, companies have to consider food insecurity levels of their employees in the workforce nutrition programmes they develop. In conclusion, investing in workforce nutrition programmes can support employees' mental and physical health. This can also increase their productivity, resulting in generating a higher return of interest for employers. It is a clear business case, worthwhile to invest.



Nutrition Education

Most people spend a third of their adult lives at the workplace, making the workplace a fitting venue for people to receive nutrition and health information^{12,22}. However, only providing nutrition education to employees has not been found to directly improve or prevent mental health conditions. Yet, nutrition education can improve the acceptability and effectiveness of a nutrition intervention^{23,24}. As healthy food at work can benefit employees' mental health, nutrition education can also indirectly contribute to mental wellbeing on the worksite. For example, an RCT (n = 292) of a plant-based nutrition intervention program including nutrition education lectures in the corporate setting showed a significant decrease in depression and anxiety and improvement of quality of life¹². The target population of this RCT were individuals with a body mass index of ≥ 25 and/or a previous diagnosis of type II diabetes since their health care and medication costs can be 20 to 110 percent higher compared to normal weight individuals²³. Another study (n = 75) showed how nutrition education could be an effective tool to improve anthropometric measures and clinical parameters in male workers²².



Nutrition Health Checks

Nutrition focused health checks are periodic one-to-one meetings with a health or nutrition professional to assess, and usually discuss, the employee's nutritional health²⁵. When healthy food at work is complemented with nutrition screening and counselling, improvements in employee knowledge, self-efficacy and confidence can be achieved together with fewer reported sick days²⁶. Since self-efficacy is positively related to mental health, health checks can indirectly benefit employees' mental wellbeing²⁷⁻²⁹.

More Information

Download our free guidebooks that offer simple steps to implement an effective workforce nutrition programme:
<https://workforcenutrition.org/guidebook-series/>

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