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Clinical Impact of a Workplace-Based Exercise Programme on Obesity and Metabolic Health in Hospital Staff

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Introduction:

Obesity among healthcare workers is an increasingly recognised clinical issue, contributing to cardiometabolic risk, reduced physical capacity, and long-term health consequences. Despite this, structured obesity-focused interventions within hospital workplaces remain limited. This study evaluated the clinical impact of a supervised workplace exercise programme on obesity-related outcomes, cardiorespiratory fitness, and metabolic health among hospital staff at Universiti Malaya Medical Centre (UMMC).

Methods:

This four-year retrospective review examined outcomes from a structured 12-week workplace fitness programme conducted at UMMC. The programme combined supervised group exercise with basic dietary counselling and was delivered within an on-site, staff-only gymnasium. Participants attended four 60-minute lunchtime exercise sessions per week, incorporating resistance training, aerobic exercise, high-intensity interval training, and mixed exercise modalities. Pre- and post-intervention assessments included body weight, body fat measures, cardiorespiratory fitness (VO₂), fasting glucose, and lipid profile.

Results:

Ninety-seven hospital staff (mean age 37.2 ± 15.0 years; predominantly female) completed the programme. Participants demonstrated significant reductions in body weight (−0.8 kg, p<0.001), body fat mass (p<0.001), and body fat percentage (p=0.005). Cardiorespiratory fitness improved substantially, with a mean increase in VO₂ of approximately 15% (p<0.001). Clinically meaningful improvements were also observed in fasting glucose (p=0.003) and triglyceride levels (p=0.038), while other lipid parameters remained stable.

Conclusions:

A structured, supervised workplace exercise programme led to meaningful improvements in obesity-related measures, physical fitness, and selected metabolic risk markers among hospital staff at UMMC. Workplace-based exercise interventions may represent a practical and clinically relevant strategy for addressing obesity and cardiometabolic risk within healthcare settings.