Physical Conditioning for Australian Paramedics: A 6-month Workplace Exercise RCT.

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Abstract

Purpose: Serious musculoskeletal injury rates for Australian paramedics are up to seven times higher than the national occupational average, resulting in significant associated costs and extended time off work. Work conditioning programs have been recommended to improve fitness but not evaluated in Australian paramedics. This study investigated the effectiveness of a 6-month workplace exercise program (MedicFit; MF) to improve paramedic fitness with or without health coach (HC) support. Methods: A group of regional Australian paramedics (n=76; 43 male; mean±SD 36.5±9.1 years; BMI 28.0±5.4 kg/m²) were randomised to either exercise with remote health coach support (MFHC; N=30), exercise without health coach support (MF; N=23), or no-exercise control (CON; N=23) groups. MFHC and MF participants received a 6-month, low-moderate intensity resistance and flexibility exercise program to be performed on station without direct supervision. Changes to upper-body (push-ups), lower-body (wall squat) and core (plank hold) strength and flexibility (back scratch and sit-reach tests) were analysed using repeated measures ANOVA. Results: Mean changes to upper-body (+20.6%; \( p<0.01; \eta p^2=0.34 \)), lower-body (+40.8%; \( p<0.05; \eta p^2=0.08 \)) and core (+1.4%; \( p=0.17; \eta p^2=0.03 \)) strength were similar between groups, as were changes to upper-body (+19.5%; \( p=0.56 \)) and lower-body (+3.3%; \( p=0.15 \)) flexibility, with no interaction or group effects observed. Conclusion: Providing a 6-month workplace exercise program with or without HC support did not confer any greater strength or flexibility benefits than exercise testing alone (CON). Although exercise adherence was not measured, it is possible that participants require additional methods of support such as face-to-face exercise instruction and guidance, and individually-tailored exercise programs.

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