Abstract Title: Implementation of a PAthway of CarE for common musculoskeletal conditions in primary care: a multicentre randomised controlled trial (PACE-MSK trial)

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Background
People with musculoskeletal conditions at high-risk of poor outcome may require different care from those at low-risk. We evaluated the effectiveness of a hybrid PAthway of CarE (PACE Programme) versus Usual Care on self-reported physical health and other outcomes between overall trial arms and high-risk subgroups.
Methods
Multicentre, single-blind randomised controlled trial conducted in Australian primary care. Adults with low back, neck and knee pain within 4 weeks of seeking care were risk-stratified then randomised to PACE or Usual Care. PACE high-risk participants were referred to a specialist physiotherapist who selected further care with the patient and their primary healthcare professional (HCP); low-risk participants received HCP-led care, supported by digital resources. Usual Care, participants received HCP-led care blinded to risk category. Primary outcome was change in SF-12 Physical Component Summary (SF12-PCS range 0-100) at 12 months. Secondary outcomes included pain self-efficacy, disability, catastrophising, depression/ anxiety and global perceived effect. Intention-to-treat analyses were conducted by blinded biostatisticians. Trial registration: Australian and New Zealand Clinical Trials Registry, ACTRN12619000871145
Results
Between July, 2020, and October, 2021, 2956 participants were screened and 767 enrolled (PACE: n=383/767, 162/383 [42·3%] high-risk); Usual Care: n=384/767, 165/384 [43·0%] high-risk). At 12 month 88% (PACE 338/383) and 89% (Usual Care) were analysed. There was no between-group difference in change in SF12-PCS at 12 months (MD −0·37, 95% CI −1·60-0·87). There was a significant difference for disability (3 months) and pain self-efficacy (3,6 months). In high-risk participants, there was no between-group difference in the SF12-PCS at any

timepoint while significant improvements in 4/5 secondary outcomes at 3,6 months favoured PACE.

Conclusions

PACE was not effective in changing SF12-PCS overall or in the high-risk sub-group. PACE was effective for other outcomes (pain-self efficacy and disability) overall and in the high-risk sub-groups in the short and medium term. Programme refinement is needed before wider implementation.

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