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Implementation of musculoskeletal Models of Care in primary care settings: Theory, practice, evaluation and outcomes for musculoskeletal health in high-income economies

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A B S T R A C T

Musculoskeletal conditions represent one of the largest causes of years lived with disability in high-income economies. These conditions are predominantly managed in primary care settings, and yet, there is a paucity of evidence on which approaches work well in increasing the uptake of best practice and in closing the evidence-to-practice gap. Increasingly, musculoskeletal models of service delivery (as components of models of care) such as integrated care, stratified care and therapist-led care have been tested in primary health care pathways

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for joint pain in older adults, for low back pain and for arthritis. In this chapter, we discuss why implementation of these models is important for primary care and how models are implemented using three case examples: we review implementation theory, principles and outcomes; we consider the role of health economic evaluation; and we propose key evidence gaps in this field. We propose the following research priorities for this area: investigating the generalisability of models of care across, for example, urban and rural settings, and for different musculoskeletal conditions; increasing support for self-management; understanding the importance of context in choosing a model of care; detailing how implementation has been undertaken; and evaluation of implementation and its impact.

Why implementation of musculoskeletal models of care is important in primary care settings

Primary health care was defined by the World Health Organisation (WHO) as '… the first level of contact of individuals, the family and the community with the national health system ……. and constitutes the first element of a continuing health care process' [1]. Primary care settings are the locations where this type of care is delivered, and for brevity, it will be henceforth referred to as 'primary care'. Although systems of delivery of primary care vary across and within countries, it is the setting in which the vast majority of people first seek help with musculoskeletal conditions and in which many are cared for, and as such, an effective primary care system is central to musculoskeletal health service provision. With its proximity to the community it serves, primary care is directly affected by the high prevalence and impact of musculoskeletal conditions in the community.

The community burden of musculoskeletal conditions in high-income economies is high and rising, placing increasing burden primary care [2]. Most commonly, these conditions include arthritis and low back pain. The prevalence of inflammatory arthritis, while about 2%, incurs huge economic costs to the system and patient, requiring early diagnosis in primary care and management with disease-modifying drugs to maximise outcomes [2]. It is the rising burden of disabling low back pain, osteoarthritis (OA) and falls (especially in those with osteoporosis and skeletal fragility) that will, given that they are highly prevalent and currently managed in primary care, principally affect the primary care workload. This is evidenced for OA and low back pain by data from UK and Swedish general practice records, which indicate that over a 7-year period 11% (Sweden) and 21% (UK) of all registered patients consult for low back pain and of the patients aged 45 years and over, 31% and 35%, respectively, consult for OA [3]. These findings are in line with the Australian data that show low back pain and OA are both in the top 10 of the most common reasons for presenting to a general practitioner (GP) [4]. Projected increases in such a burden as identified by the Global Burden of Disease Study [2] are likely to add significantly to the primary care workload. In addition to future rising demand for primary care, there is a present gap between the recommended practice and day-to-day practice: surveys suggest that current primary care for back pain and OA is suboptimal when judged against quality standards derived from clinical practice guideline recommendations [5–10]. Implementation of models of care may be helpful in bridging this gap and guiding more sustainable and efficient health care.

A model of care has been defined as 'an evidence-informed policy or framework that outlines the optimal manner in which condition-specific care should be made available and delivered to consumers' [11] and addresses system-level delivery and specific service provision in different parts of the system. For clarity in this chapter, the term 'model of service delivery' is used when describing issues related to the provision of care at an operational or service level.

Speerin et al. [12] reviewed models of care for musculoskeletal conditions, giving a range of exemplars from different settings, and a WHO report identified the opportunities to improve musculoskeletal health outcomes afforded by implementation of models of care [13]. Models of care and