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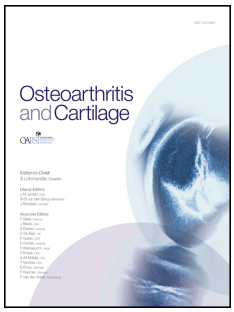

Response to: Losina E. Why past research successes do not translate to clinical reality: gaps in evidence on exercise program efficiency. Osteoarthritis and Cartilage 2019;27:1-2

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Title:

Response to: Losina E. Why past research successes do not translate to clinical reality: gaps in evidence on exercise program efficiency. Osteoarthritis and Cartilage 2019;27:1-2.

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Dear Editor,

RE: Losina E. Why past research successes do not translate to clinical reality: gaps in evidence on exercise program efficiency. Osteoarthritis and Cartilage 2019;27:1-2.

We welcome the editorial by Losina which highlights many key challenges in implementing best evidence into practice. We agree that exercise is both under prescribed and underutilised for people with osteoarthritis (OA) (Holden et al., 2012, Brand et al., 2014, Cottrell et al., 2017, Healey et al., 2018) and would like to add to this discussion around the evidence-to-practice gap.

Mobilisation of research-based knowledge to transform clinical practice is a complex, multi-faceted process which necessarily involves multiple stakeholders (including patients, clinicians, commissioners and researchers). This process starts with intervention development and goes beyond traditional academic dissemination (which often primarily only reaches the academic community) to focussed strategies that reach (time-pressed) clinical audiences.

Research and implementation are often viewed as separate entities. Traditional approaches to the sharing and use of evidence-based knowledge are typically one-way and researcher-driven whereby academia produces research evidence that is 'pushed' or translated to end users (patients and clinicians), and its application into practice is assumed (Nutley et al., 2008). We suggest a move away from traditional dissemination and a focus towards more integrated, practice-centred approaches that are informed by key stakeholders throughout the research to implementation journey. Examples include the ongoing development of partnerships between research producers, participants and users (Lomas, 2000); co-production of research including implementation plans; and, the use of a boundary-spanning approach whereby individuals that sit across more than one organisation (such as clinical-academics) can share knowledge, skills, and ideas across networks.

Potential barriers to successful implementation exist at many stages of the knowledge mobilisation process. These include inadequate intervention reporting as discussed by Losina. We make the case that actions are required from intervention development through to real-world clinical practice to optimise

successful implementation of exercise programmes. We propose several considerations to enhance the implementation process.

Knowledge mobilisation theory

Utilising knowledge mobilisation theory to underpin research and implementation activities can increase the likelihood that interventions are adopted by clinicians and patients and is central to understanding and explaining the reasons for implementation success or failure. It can also focus attention on what action may be required to address the implementation-related issues pertinent to stakeholders. A challenge for both researchers and clinicians is selecting one (or more) of the many published theoretical approaches. Nilsen (2015) proposes a taxonomy for the array of theories, models and frameworks that exist to facilitate the planning, understanding and evaluation of implementation. This can be used to guide the selection of the most appropriate theory to support knowledge mobilisation for implementation in a given context.

Dedicated resources to support change

Current service development and commissioning structures often mean that individuals and organisations are not equipped with the expertise, resource or time to critically appraise the volume of primary research being published and translate that into the real world. Actively integrating evidence into practice may be optimised by allocation of sufficient dedicated resources for knowledge mobilisation such as establishing a Community of Practice network or developing boundary spanning roles. The inclusion of knowledge mobilisation plans in research grants and pump priming for future implementation in research funding may also help to mitigate this problem.

Lay involvement

We believe that the role of patient and public involvement and engagement (PPIE) in knowledge mobilisation is important from the early stages of priority setting, right through to the delivery of care and is often underutilised. Researchers can draw upon the lived experience and unique 'expertise' of people with OA to help facilitate the 'pull' of research to implement new services. Consulting people with OA and utilising their expertise at the beginning of the

process may help to ensure the successful knowledge mobilisation of clinical interventions that are relevant and usable. In many countries PPIE in research is mature and now these roles can be evolved for implementation activity. An example of successful lay involvement in shaping and informing knowledge mobilisation is the JIGSAW-E implementation project (https://www.eithealth.eu/jigsaw-e).

Sharing of best practice

Existing OARSI resources such as the Hey OA Podcast (HeyOA006 https://www.oarsi.org/education/hey-oa-podcast) and the recently formed OARSI OA Management Programs Joint Effort Initiative Discussion Group, initiated by Hunter and colleagues for addressing the uptake of best care for OA, may be useful ways to help to develop the knowledge mobilisation discipline further and share implementation strategies within our OA community.

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Author contributions

JQ contributed to the conception of the manuscript. All authors have contributed to the design, drafting and final approval of this manuscript.

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Conflict of Interest - None

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