



Sport and Exercise Medicine Research Centre







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Conflicts of Interest



Not-for-profit initiatives knowledge translation initiatives

- GLA:D® Australia
- TREK (Translating Research Evidence and Knowledge)



Associate Editor, Deputy Editor for Social Media



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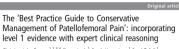












Christian John Barton, ^{1,2,3,4} Simon Lack, ¹ Steph Hemmings, ¹ Saad Tufail, Dylan Morrissey^{1,5}



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The 'Best Practice Guide to Conservative Management of Patellofemoral Pain': incorporating level 1 evidence with expert clinical reasoning

TREK

Christian John Barton, ^{1,2,3,4} Simon Lack, ¹ Steph Hemmings, ¹ Saad Tufail, ¹ Dylan Morrissey ^{1,5}

"Effective management of PFP requires consideration of a number of proven conservative interventions. An individually tailored multimodal intervention programme including gluteal and quadriceps strengthening, patellar taping and an emphasis on education and activity modification should be prescribed for patients with PFP."

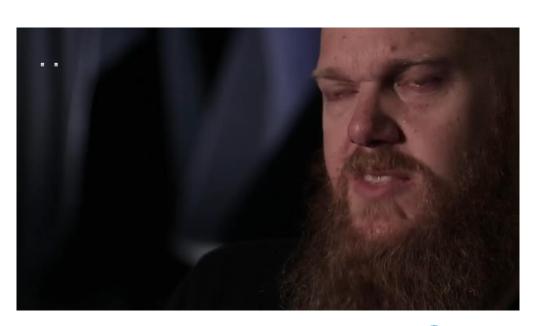
"We provide a 'Best Practice Guide to Conservative Management of Patellofemoral Pain' outlining key considerations."



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BMJ Open The experience of living with patellofemoral pain-loss, confusion and fear-avoidance: a UK qualitative

Targeted exercise-



"When I did get the physiotherapy it kinda didn't really do anything anyway. She did say your knees will feel sore, but it went back to how it was anyway, so, it just seemed like a pointless process."

Avoidance behaviours

"They're saying that I'm a grandma. They say, 'Yeah. If you were a horse, they'd put you down."

"When I started the physio at work and he told me that I shouldn't walk or that I shouldn't swim because he just wanted to obviously manipulate it and get me pain-free before I did anything that could possibly aggravate it. So I

stopped."

fear + promote



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Acceptance of misinformation:

"cases in which people's beliefs about factual matters are not supported by clear evidence"



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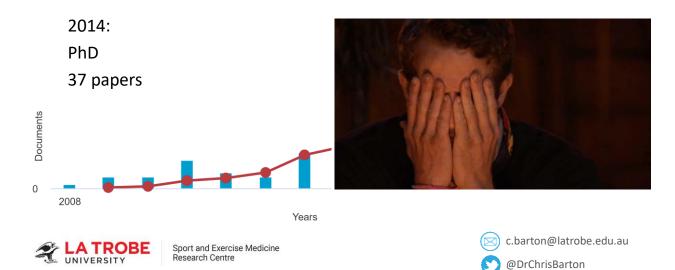


The 'Best Practice Guide to Conservative Management of Patellofemoral Pain': incorporating level 1 evidence with expert clinical reasoning

Christian John Barton, 1,2,3,4 Simon Lack, 1 Steph Hemmings, 1 Saad Tufail, 1 Dylan Morrissey 1,5

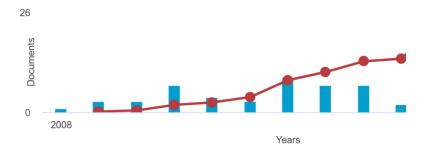






My publication trajectory to 2017





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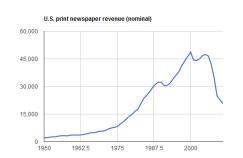
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What is the purpose of academic journals?





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Research Open

Archives of Women Health and Care

Volume 1 Issue 1

Case Report

Temporal Effect of Repeated Spinal Manipulation on Mortality Ratio: A Case Report

Chad E. Cook PT1*, Joshua A. Cleland2, Paul E. Mintken3

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Research Open

Temporal Effect of Repeated Spinal Manipulation on Mortality Ratio: A Case Report



Abstract

Background: A number of new interventions have recently influenced mortality, once considered an incurable disease. Manual therapy, specifically manipulation, has the potential to be an influential intervention.

Study Design: This case report was created using CARE guidelines. A case report is a narrative that describes, for medical, scientific, or educational purposes, a medical problem experienced by one or more patients. In this example, a patient was seen for one visit, followed by a dedicated home exercise program. The patient received a repeated measures spinal manipulation that was designed to improve mobility, morbidity and mortality. Notable significant changes were seen after care.

Discussion: Overall improvements were notable but the study design does not permit causality or does it allow us to determine if the findings are clinically significant. A randomized controlled trial may improve the generalizability of findings.

Keywords: Spinal manipulation, repeated measures, Gouda, Death



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Pain: Manual Therapy Versus Sham/Control at 2 to 6 Weeks

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SMD Estimate (95% CI)

15

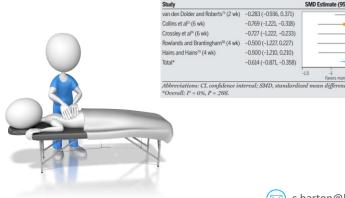
LETTER TO THE EDITOR-IN-CHIEF



Letters to the Editor are reviewed and selected for publication based on the relevance, importance, appropriateness, and timeliness of the topic. Please see submission guidelines at www.jospt.org for further information. J Orthop Sports Phys Ther 2018;48(7):598-599. doi:10.2519/ jospt.2018.0203

NO EVIDENCE EXISTS TO SUPPORT MANUAL THERAPY IN PHYSICAL THERAPY PRACTICE FOR PATELLOFEMORAL PAIN

We read with great interest the recent systematic review published in JOSPT titled "Effectiveness of Manual Therapy for Pain and Self-reported Function in Indi-



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-0.769 (-1.221, -0.318)

-0.727 (-1.222, -0.233)

-0.500 (-1.210, 0.210) -0.614 (-0.871, -0.358)

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Patient Education on Patellofemoral Pain

To the Editor Patellofemoral pain affects 1 in 14 individuals. We have concerns regarding the JAMA Patient Page on this common problem. 2

The page was based on an opinion piece from 2007 and lacked consideration or acknowledgment of key research within the last 10 years, including multiple randomized clinical trials, culminating in 5 Cochrane reviews.3 This research has contributed to understanding and management of patellofemoral pain. Two key questions patients ask are 'Why did I develop knee pain?" and "What is my long-term prognosis?" The Patient Page provided factually incorrect answers, suggesting that there is no long-term effect of patellofemoral pain despite current evidence demonstrating that up to 1 in 2 patients continues to experience pain that affects sports participation, quality of life, and general health. 4 Furthermore, the emphasis on the role of shoes in the development and treatment of patellofemoral pain, along with rest and stretching as key interventions, is in contradiction to current evidence and understanding of pain. Up-todate evidence emphasizes exercise therapy targeting both knee and hip muscle strength, 3,5 along with foot orthoses to relieve pain in the short term.3 This key information is poorly articulated (exercise) or absent (foot orthoses).

Empowering patients by accurately informing them about their condition and treatment options has the potential to help optimize care. However, patient education materials should be based on current evidence and understanding, developed together with patient needs and preferences.

Christian J. Barton, PhD Sinéad Holden, PhD Michael Skovdal Rathleff, PhD In Reply Dr Barton and colleagues suggest that our JAMA Patient Page contained outdated information because we cited a background article dating from 2007. This is not true. All of the information presented was up-to-date and consistent with recent clinical evidence as well as our own clinical expertise in patellofemoral pain, an entity for which diagnosis and management has not significantly changed over the past 10 years. As with all JAMA Patient Pages, this article was meant to be a generalized and limited overview of a medical condition, not a comprehensive literature review that specifically cited all recent evidence.

Barton and colleagues state that our Patient Page is "factually incorrect" because it suggested that there are no longterm effects of patellofemoral pain, such as for sports participation, quality of life, and general health. We agree that these are all potential long-term functional effects of patellofemoral pain (although the study cited by Barton and colleagues to support this statement was a poor-quality, survey-based study with 60 patients, representing a 19% response rate). How ever, our article specifically separated these functional effects from any long-term-structural effects on the knee joint, such as arthritis. The authors are physiotherapists and exercise scientists, and patients come to them with a different set of concerns than they do when first presenting to a physician with knee pain. Their focus is on optimizing specific physical therapy modes to improve function and quality of life; our focus for a patient with knee pain is to first rule out structural joint disease. As such, it is vital for patients to understand the difference between the functional components of patellofemoral pain vs structural knee disease.

Barton and colleagues suggest that we did not place enough emphasis on physical therapy, exercise, and foot orthoses as treatments for patellofemoral pain. We disagree, as we specifically stated that "physical therapy is a mainstay of treatment." as it has always been. It is true that foot orthoses were



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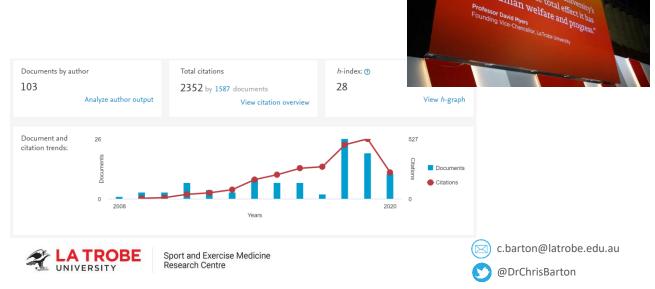


What is your reach with traditional outputs?



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THE CONFLICT



I wrote a paper





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Hall Genome Biology 2014, 15:424 http://genomebiology.com/2014/15/1/42

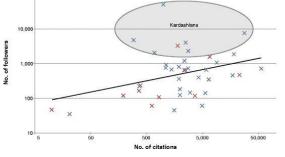




COMMENT

The Kardashian index: a measure of discrepant social media profile for scientists



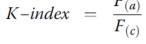


"A high K-index is a warning to the community that researcher X may have built their public profile on shaky foundations, while a very low K-index suggests that a scientist is being undervalued."

>5 = Science Kardashian



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Hall Genome Biology 2014, 15:424 http://genomebiology.com/2014/15/1/424





COMMENT

The Kardashian index: a measure of discrepant social media profile for scientists

Neil Hall

"If your K-index gets above 5, then it's time to get off Twitter and write those papers."

| Researcher | Followers | Citations | K-index |
|---------------------------|-----------|-----------|---------|
| Christian Barton | 18,600 | 2,352 | 7.91 |
| Kay Crossley | 4,369 | 9,824 | 0.44 |
| Esteemed Professor I know | 211 | 11,266 | 0.02 |
| YOU? | | | |

"A high K-index is a warning to the community that researcher X may have built their public profile on shaky foundations, while a very low K-index suggests that a scientist is being undervalued."

>5 = Science Kardashian



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$$K$$
-index = $\frac{F_{(a)}}{F_{(c)}}$



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How can **WE ALL** improve knowledge translation?

Research completion • Develop question and design • Complete research (study or review) • Analyse results Journal publication • Write manuscript • Submit to journal • Peer review • Address concerns • Finalise paper and sign over copyright Multimedia creation • Blog • Infographic • Video • Podcast • Media release • Etc.



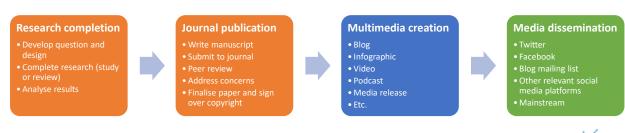
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How can **WE ALL** improve knowledge translation?













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It is time to replace publish or perish with get visible or vanish: opportunities where digital and social media can reshape knowledge translation

Christian J Barton, ¹ Mark A Merolli²³

1. Motivate the elephant

(e.g. desire to bridge knowledge gaps)

2. Direct the rider

(e.g. awareness of knowledge gaps)

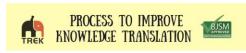
3. Shape the path

(e.g. optimise engagement with KT resources)

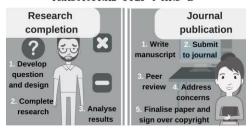


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TRADITIONAL STEP 1 AND 2



NOVEL STEP 3 AND 4



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THERAPEUTIC EXERCISE RELIEVES PAIN AND DOES NOT HARM KNEE CARTILAGE NOR TRIGGER INFLAMMATION

FIRST LINE TREATMENTS IN OSTEOARTHRITIS



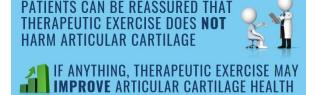
HOWEVER...

THE BELIEF THAT THERAPEUTIC EXERCISE MAY HARM THE KNEE JOINT CARTILAGE IS STILL COMMON AMONG PEOPLE WITH KNEE OSTEOARTHRITIS AND HEALTH PROFESSIONALS TREATING THE CONDITION

CONTRARY TO THIS COMMON BELIEF...



CLINICAL IMPLICATIONS



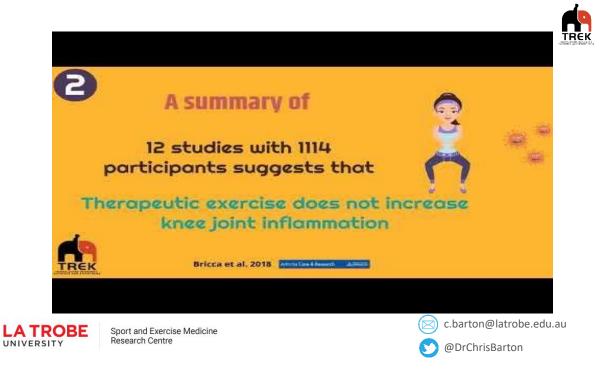
AND...

HAS COMPELLING EVIDENCE FOR HELPING TO:

PREVENT AT LEAST 35 CHRONIC CONDITIONS

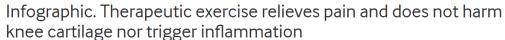
TREAT AT LEAST 26 CHRONIC CONDITIONS

Bricca et al. 2018, BJSM: Bricca et al. 2018, ACR: Skou et al. 2018, JOSPT





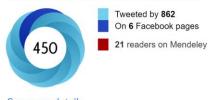
PostScript Infographics



View Full Text

http://dx.doi.org/10.1136/bjsports-2019-100727





See more details

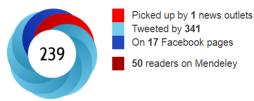


Sport and Exercise Medicine Research Centre Review

Impact of exercise on articular cartilage in people at risk of, or with established, knee osteoarthritis: a systematic review of randomised controlled trials

Alessio Bricca¹, Carsten B Juhl^{1, 2}, Martijn Steultjens³, Wolfgang Wirth^{4, 5}, Ewa M Roos¹





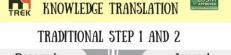
OPEN ACCESS The relationships between golf and health: a scoping review

A D Murray, ^{1, 2} L Daines, ³ D Archibald, ⁴ R A Hawkes, ^{5,6} C Schiphorst, ¹ P Kelly, ¹ L Grant, ^{3,7} N Mutrie¹

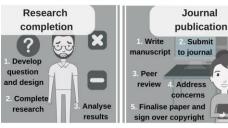
"Golf can provide moderate intensity physical activity and is associated with physical health benefits that include improved cardiovascular, respiratory and metabolic profiles, and improved wellness."

"There is limited evidence related to golf and mental health."

"The incidence of golfing injury is moderate, with back injuries the most frequent. Accidental head injuries are rare, but can have serious consequences."



PROCESS TO IMPROVE

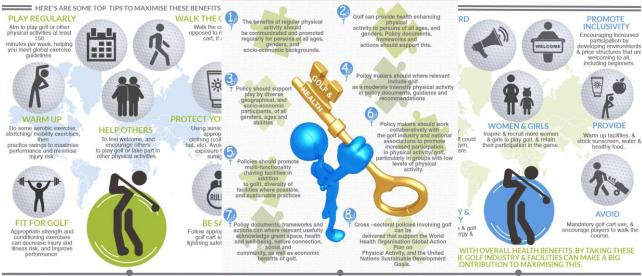




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- Twitter, Facebook, Instagram, and blogs
- Email, Press release distribution
- Direct communications targeting relevant stakeholders

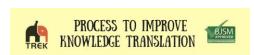
Statistics from Altmetric.com



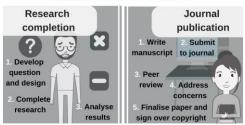


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TRADITIONAL STEP 1 AND 2



NOVEL STEP 3 AND 4



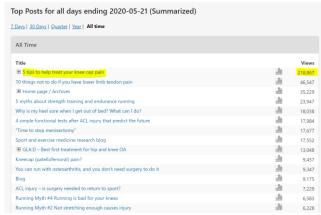








Controlled Media





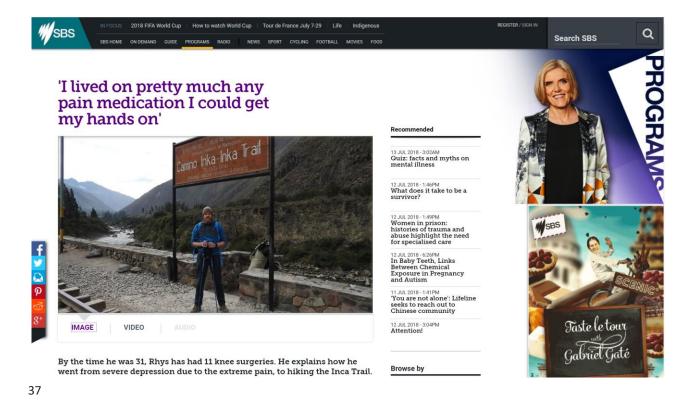
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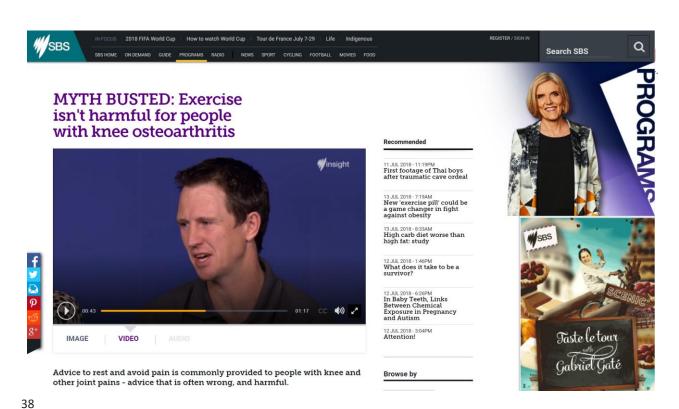
Exercise is medicine for knee pain — Rhys's story

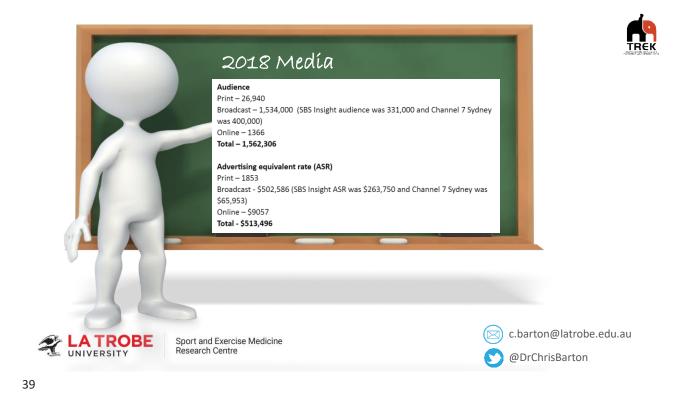
"I don't see myself having to need knee surgery for a very long time. I don't think I would have ever needed surgery in the first place if it could have been managed prior with a proper exercise regime" Search our blog

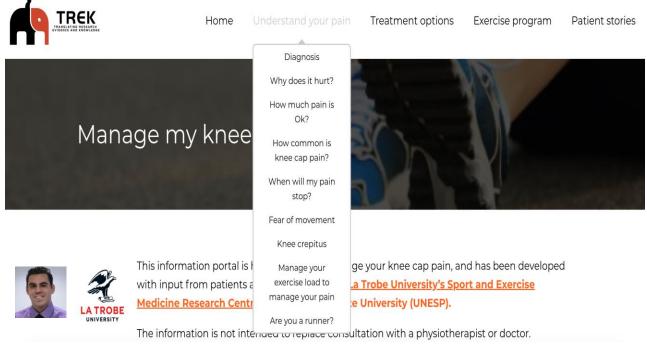
Search ... Search

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