

# Is it time to replace publish or perish with get visible or vanish?

**Dr Christian Barton**

La Trobe Sport and Exercise Medicine Research Centre, Melbourne, Australia

Department of Surgery, University of Melbourne, St.Vincent's Hospital, Melbourne, Victoria, Australia

Clinical Director and Physiotherapist, Complete Sports Care, Melbourne, Australia



**LA TROBE**  
UNIVERSITY

Sport and Exercise Medicine  
Research Centre



c.barton@latrobe.edu.au



@DrChrisBarton

# Disclosures



Medical Research  
Future Fund



Teach courses related to running and knee injury management  
I was dragged kicking and screaming to social media

## Not-for-profit initiatives knowledge translation initiatives

- GLA:D<sup>®</sup> Australia
- TREK (Translating Research Evidence and Knowledge)



Associate Editor, Deputy Editor for Social Media



Sport and Exercise Medicine  
Research Centre



c.barton@latrobe.edu.au



@DrChrisBarton

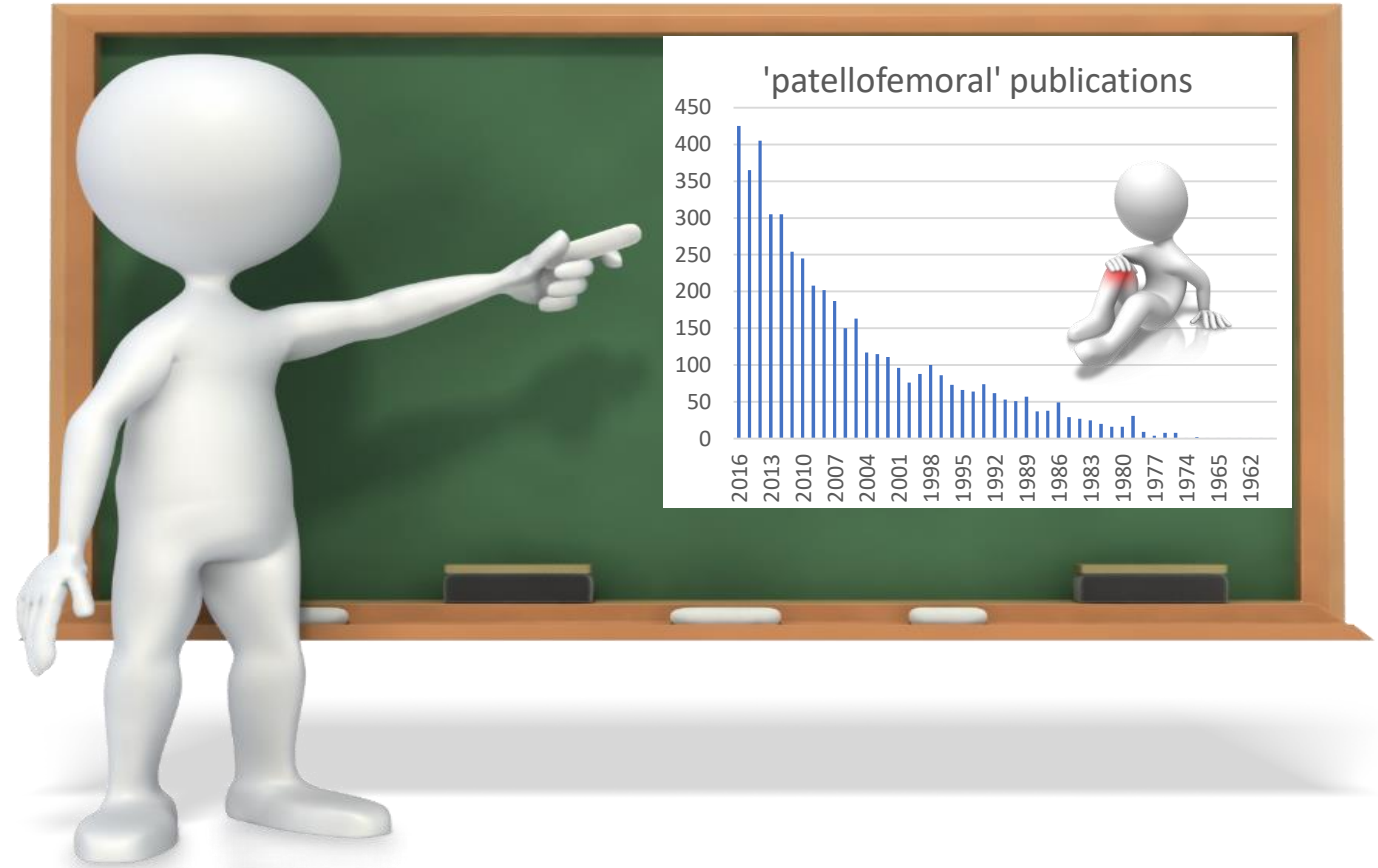


1. Why did I get pulled to care about this area?
2. The looming cliff for academic journals?
3. Embracing digital and social media innovation
4. Can digital and social media to facilitate research impact?



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

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



**LA TROBE**  
UNIVERSITY

Sport and Exercise Medicine  
Research Centre



c.barton@latrobe.edu.au



@DrChrisBarton

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

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

- Tailored multimodal intervention
- Hip and knee exercise
- Patellar taping and foot orthoses considered
- Emphasis on education and activity modification (no evidence)

“We provide a **‘Best Practice Guide to Conservative Management of Patellofemoral Pain’** outlining key considerations.”





**LA TROBE**  
UNIVERSITY

Sport and Exercise Medicine  
Research Centre



c.barton@latrobe.edu.au

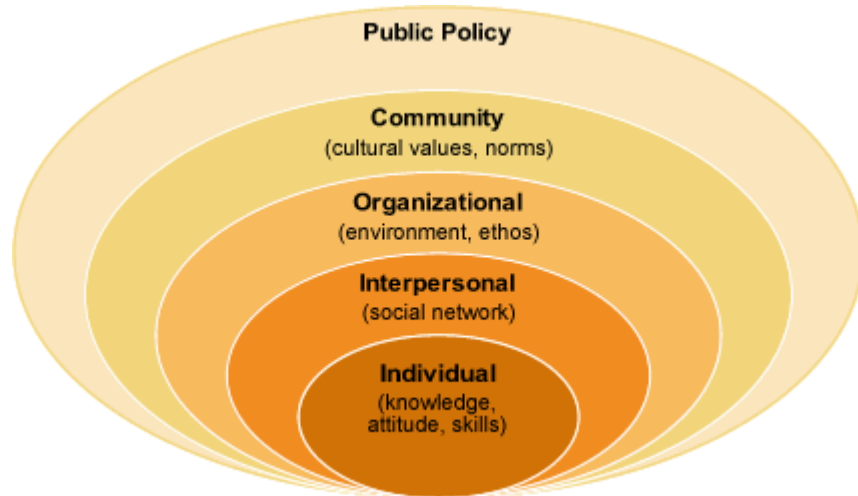


@DrChrisBarton



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

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



# Some context



Contents lists available at ScienceDirect

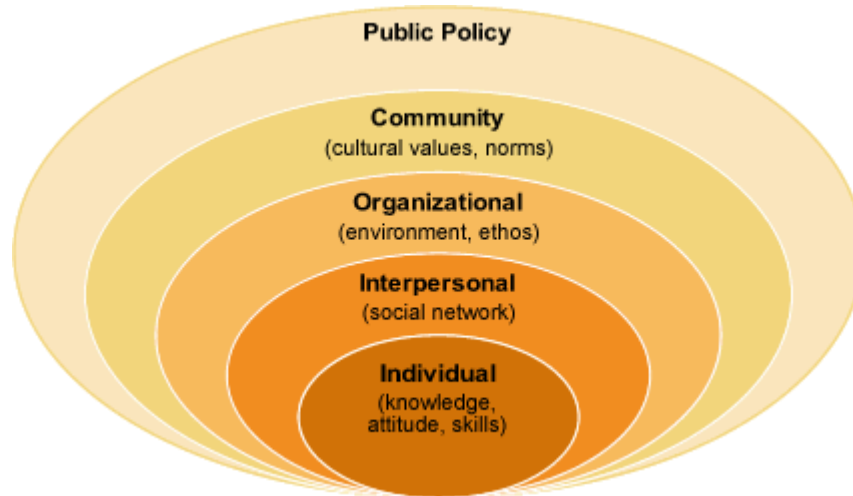
Osteoarthritis and Cartilage Open

journal homepage: [www.elsevier.com/journals/osteoarthritis-and-cartilage-open/2665-9131](http://www.elsevier.com/journals/osteoarthritis-and-cartilage-open/2665-9131)



Barriers and enablers to uptake of a contemporary guideline-based management program for hip and knee osteoarthritis: A qualitative study

Jason A. Wallis<sup>a,b,c,\*</sup>, Ilana N. Ackerman<sup>c</sup>, Natasha K. Brusco<sup>a,d</sup>, Joanne L. Kemp<sup>c</sup>, James Sherwood<sup>a</sup>, Kirby Young<sup>a</sup>, Sophie Jennings<sup>a</sup>, Adrian Trivett<sup>f</sup>, Christian J. Barton<sup>e,g</sup>



*“I’ve been told that I’ve got bone on bone and I do need a new knee.”*

*“I mean if the x-ray is really bad and showing bone-on-bone, I don’t think physio is going to be able to do very much except keep the muscle strong and then joint replacement has be considered.”*  
– GP



[c.barton@latrobe.edu.au](mailto:c.barton@latrobe.edu.au)



@DrChrisBarton



# Some context



Contents lists available at ScienceDirect

Osteoarthritis and Cartilage Open

journal homepage: [www.elsevier.com/journals/osteoarthritis-and-cartilage-open/2665-9131](http://www.elsevier.com/journals/osteoarthritis-and-cartilage-open/2665-9131)



Barriers and enablers to uptake of a contemporary guideline-based management program for hip and knee osteoarthritis: A qualitative study

Jason A. Wallis<sup>a,b,c,\*</sup>, Ilana N. Ackerman<sup>c</sup>, Natasha K. Brusco<sup>a,d</sup>, Joanne L. Kemp<sup>c</sup>, James Sherwood<sup>a</sup>, Kirby Young<sup>a</sup>, Sophie Jennings<sup>a</sup>, Adrian Trivett<sup>f</sup>, Christian J. Barton<sup>e,g</sup>



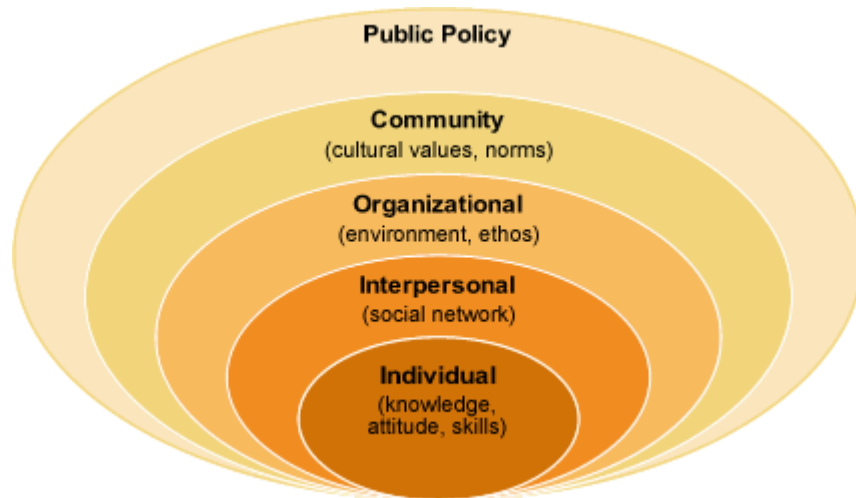
*“There are lots of things that I need at the moment. Yes financial considerations do matter.”*

*“Parking around any hospital, not just [Hospital], is a nightmare”*


*“Well, the main thing will be cost for a lot of patients.” - surgeon*



# Some context



The direct-to-consumer market for stem cell-based interventions in Australia: exploring the experiences of patients

Catherine Waldby<sup>\*1</sup>, Tereza Hendl<sup>2</sup>, Ian Kerridge<sup>3</sup>, Wendy Lipworth<sup>3</sup>, Tamra Lysaght<sup>4</sup> , Megan Munsie<sup>5,6</sup> & Cameron Stewart<sup>7</sup>

*“They seem to be able to rebuild or recreate something you’ve lost.”*

*“There's no down time. You don't have to spend time in hospital, you don't have to have physiotherapy because you've had a knee replacement. You just go in, you have the injection, then you get up and you walk out, and you just get on with it.”*

# Current journal model



## Research completion

- Develop question and study design
- Complete research or review
- Analyse data

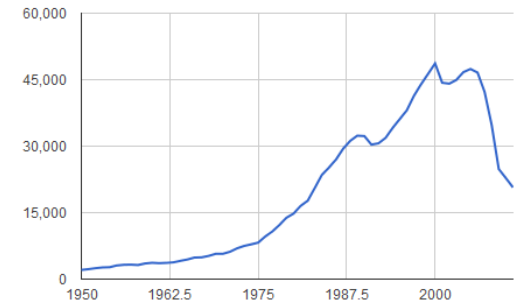
## Journal publication

- Write manuscript
- Submit to journal
- Peer review
- Address concerns
- Finalise paper and sign over copyright

**350 years old**



U.S. print newspaper revenue (nominal)



c.barton@latrobe.edu.au

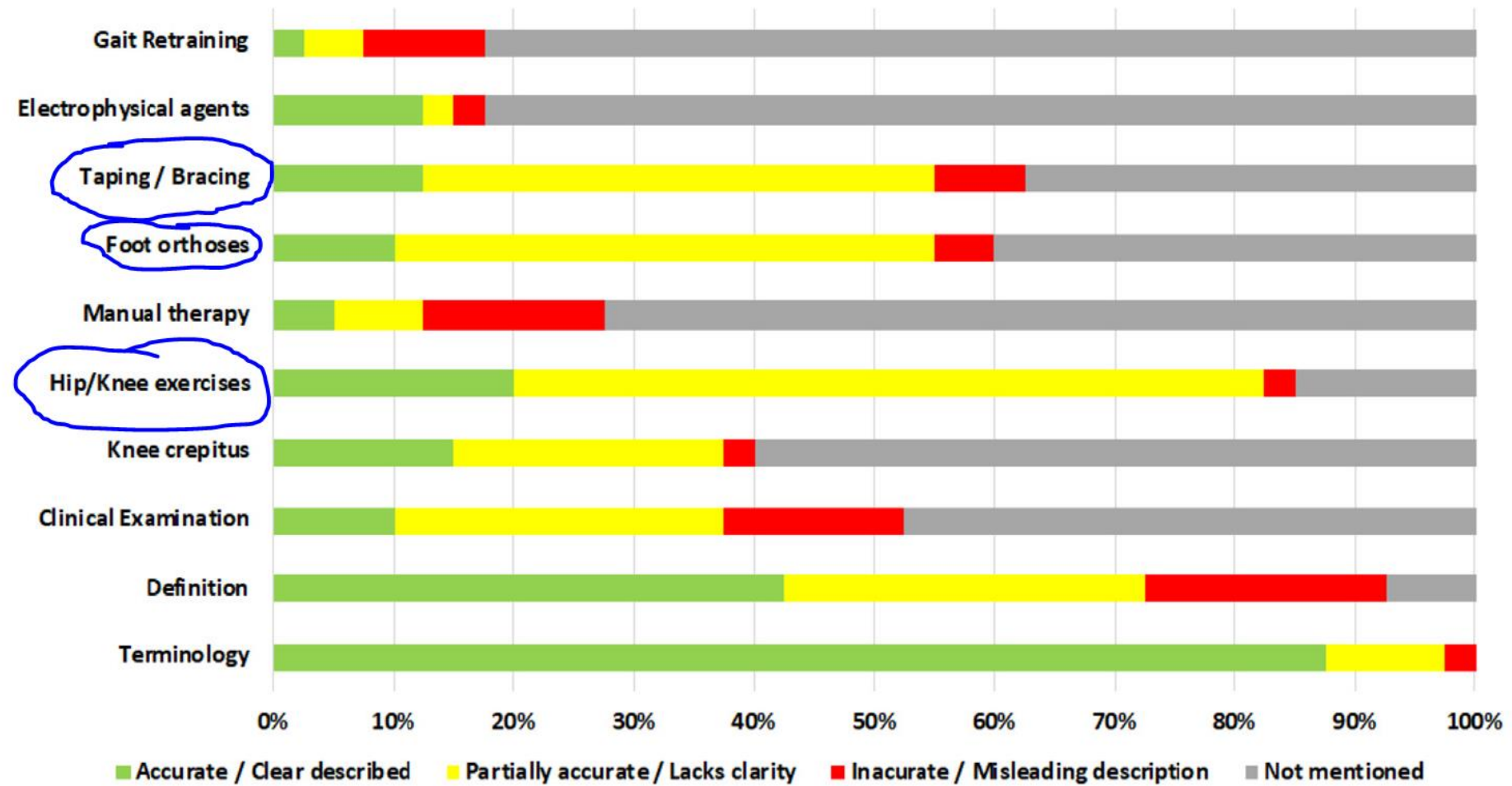


@DrChrisBarton



Patients and clinicians managing patellofemoral pain should not rely on general web-based information

Daniilo de Oliveira Silva <sup>a,b,\*</sup>, Michael Skovdal Rathleff <sup>c,d</sup>, Sinead Holden <sup>c,d</sup>, Emily Bell <sup>b</sup>, Fábio Azevedo <sup>b</sup>, Marcella Ferraz Pazzinatto <sup>a,b</sup>, Christian Barton <sup>a,e</sup>



45% created to advertise products of services

22% recommended knee surgery



**LA TROBE**  
UNIVERSITY

Sport and Exercise Medicine  
Research Centre



[c.barton@latrobe.edu.au](mailto:c.barton@latrobe.edu.au)



@DrChrisBarton

COMMENT

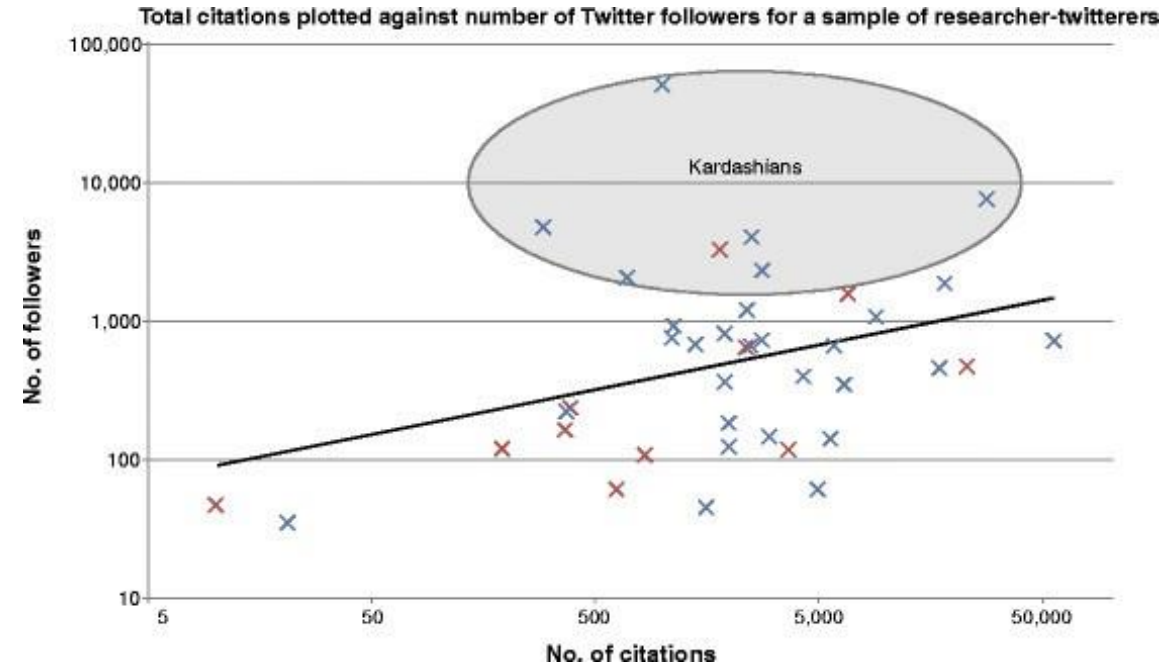
# The Kardashian index: a measure of discrepant social media profile for scientists

Neil Hall



**High K-index** = researcher may have built their public profile on shaky foundations

**Low K-index** = scientist is being undervalued



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

# We wrote a paper



## 4 BARRIERS TO KNOWLEDGE TRANSLATION FROM ACADEMIC TO PRACTICE

1

Article access

“I enjoyed reading your article, although as a journal editor, I think that it should be kept in the archive. It would be like the Christmas dinner.” – anonymous editor

**\$35 billion + Industry**



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

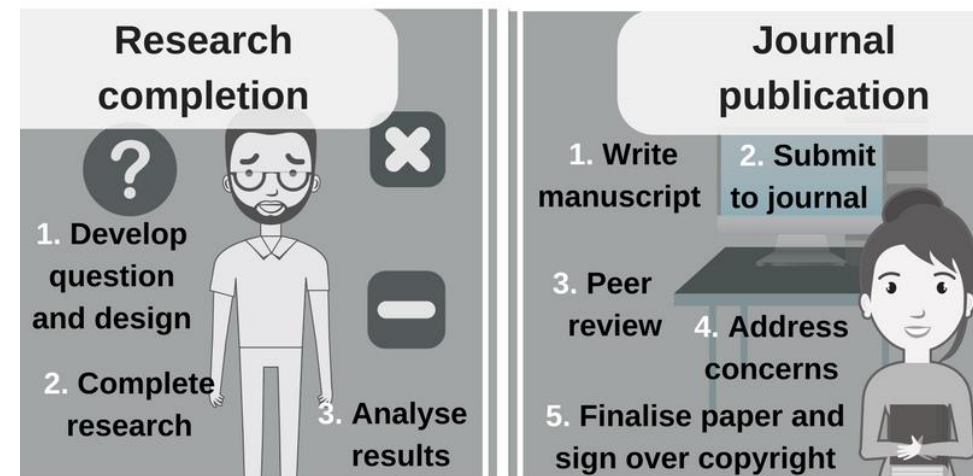
Christian J Barton,<sup>1</sup> Mark A Merolli<sup>2,3</sup>

## Opportunities

1. Embrace social media
2. Embrace different written formats
3. Podcasts
4. Visual engaging summaries (e.g. infographics)
5. Video

## PROCESS TO IMPROVE KNOWLEDGE TRANSLATION

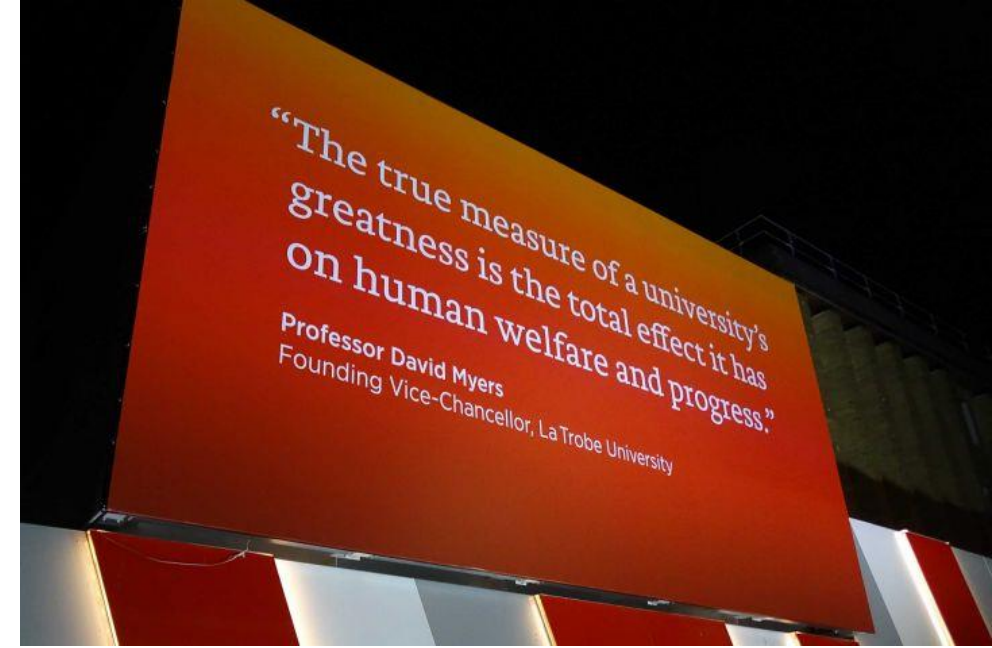
### TRADITIONAL STEP 1 AND 2



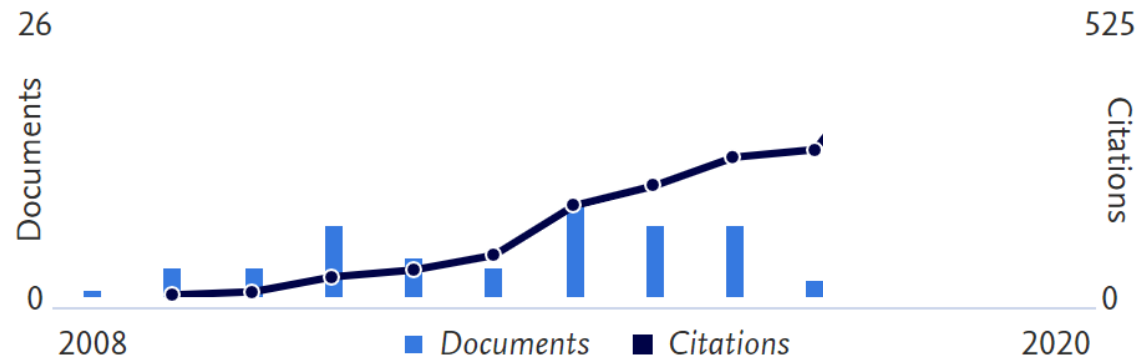
### NOVEL STEP 3 AND 4



# THE CONFLICT



Document & citation trends



Analyze author output

Citation overview





RICHARD W. WILLY, PT, PhD • LISA T. HOGLUND, PT, PhD • CHRISTIAN J. BARTON, PT, PhD  
 LORI A. BOLGLA, PT, PhD • DAVID A. SCALZITTI, PT, PhD • DAVID S. LOGERSTEDT, PT, PhD  
 ANDREW D. LYNCH, PT, PhD • LYNN SNYDER-MACKLER, PT, ScD, FAPTA • CHRISTINE M. MCDONOUGH, PT, PhD

# Patellofemoral Pain

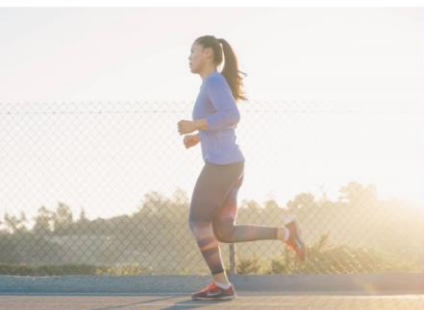
*Clinical Practice Guidelines Linked to the ICF Classification of Functioning, Disability and Health From the Academy of Orthopaedic Physical Therapy of the American Physical Therapy Association*

*J Orthop Sports Phys Ther. 2019;49(9):CPG1-CPG95. doi:10.2519/jospt.2019.0302*

03  
09/2019

## New guidelines for Runner's Knee

Like 37  
 Tweet  
 Share



Active rather than passive treatments are the key to recovering from "Runner's Knee", according to new international treatment guidelines co-authored by La Trobe University physiotherapy researcher Dr Christian Barton.



About this Attention Score

In the top 5% of all research outputs scored by Altmetric

MORE...

Mentioned by

- 20 news outlets
- 902 tweeters
- 25 Facebook pages
- 1 Wikipedia page

Citations

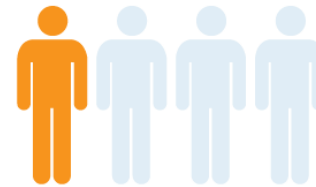
15 Dimensions

Readers on

257 Mendeley

# Patellofemoral Pain

Often known as "kneecap pain" or "runners knee"



**Affects 25%**  
 of the general population every year.  
 Women experience kneecap pain twice as often as men.

Prevention of kneecap pain is challenging, based on the Clinical Practice Guidelines by the Academy of Orthopaedic Physical Therapy\*, here are some suggestions:

- Gradually increase the amount of activity you are doing.
- Do a variety of activities; adolescents who specialize in a single sport have greater risk of kneecap pain.
- Maximizing knee strength may reduce the risk of developing kneecap pain.
- Age, height, weight, and leg posture are not risk factors in developing kneecap pain.

## How can a physical therapist work with you and your kneecap pain?

- Hip and knee exercises are the best thing for people with kneecap pain.
- Knee taping or inexpensive shoe inserts can be helpful, but should be combined with an exercise program.
- There are no quick fixes: Exercise is the best treatment option over other options.
- Improving the way a person runs, jumps, or adjusting a training routine often helps reduce kneecap pain.



\*This infographic is based on the guideline by Willy et al titled "Patellofemoral Pain" (*J Orthop Sports Phys Ther.* 2019;49(9):CPG1-CPG95. doi:10.2519/jospt.2019.0302)  
 Dr. Christian Barton, Senior Post-Doctoral Researcher, La Trobe University's Sport and Exercise Medicine Research Centre, Australia; Dr. Richard Willy, Assistant Professor, School of Physical Therapy and Rehabilitation Sciences, University of Montana  
 The information provided in this graphic is for informational purposes and not a substitution for seeking proper health care to diagnose and treat this condition. Please consult a physical therapist or other health care provider specializing in musculoskeletal disorders for more information on managing this condition.



## The relationships between golf and health: a scoping review

A D Murray,<sup>1,2</sup> L Daines,<sup>3</sup> D Archibald,<sup>4</sup> R A Hawkes,<sup>5,6</sup> C Schiphorst,<sup>1</sup> P Kelly,<sup>1</sup>  
L Grant,<sup>3,7</sup> N Mutrie<sup>1</sup>

Infographics

## Infographics and digital resources: an international consensus on golf and health

Andrew D Murray,<sup>1,2</sup> Christian J Barton,<sup>3,4</sup> Daryll Archibald,<sup>5,6</sup> Danny Glover,<sup>7</sup> Iain Robert Murray,<sup>8,9</sup>  
Kevin Barker,<sup>10</sup> Roger A Hawkes<sup>11,12</sup>

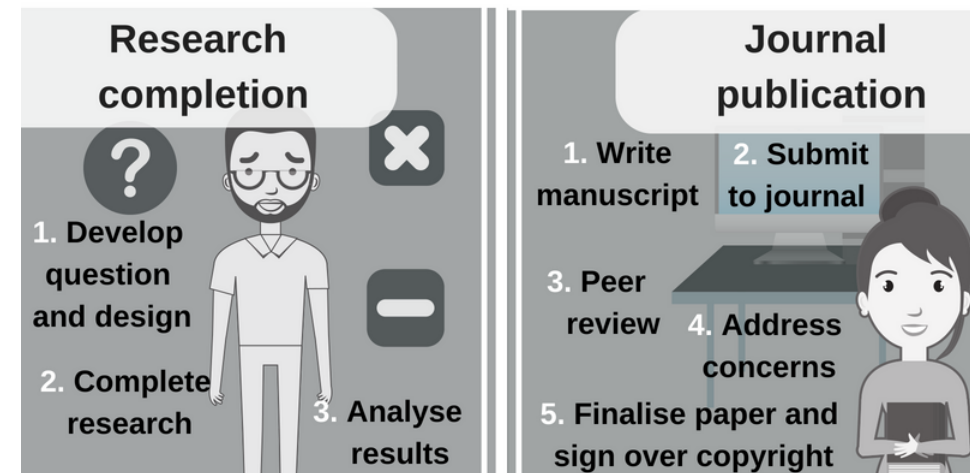
“Golf can provide moderate intensity physical activity and is associated with physical health benefits.”



PROCESS TO IMPROVE  
KNOWLEDGE TRANSLATION



## TRADITIONAL STEP 1 AND 2



# PLAYING GOLF CAN MAKE YOU HEALTHIER & HAPPIER

HERE'S ARE SOME TOP TIPS TO MAXIMISE THESE BENEFITS

## PLAY REGULARLY

Aim to play golf or other physical activities at least 150 minutes per week, helping you meet global exercise guidelines



## WALK THE COURSE

Walk the course instead of using a golf cart, if possible



## WARM UP

Do some aerobic exercise, stretching/ mobility exercises, then practice swings to maximise performance and minimise injury risk.



## FIT FOR GOLF

Appropriate strength and conditioning exercises can decrease injury and illness risk, and improve performance



## HELP OTHERS

To feel welcome, and encourage others to play golf or take part in other physical activities.



## PROTECT YOURSELF

Using sunscreen, appropriate clothing (collared shirt, hat, etc). Avoid excessive sun exposure to reduce the risk of skin cancer



## BE SAFE

Follow appropriate golf cart safety rules, including wearing seatbelts and avoiding lightning safety

# Golf & Health- key actions for policy/decision makers

- The benefits of regular physical activity should be communicated and promoted regularly for persons of all ages, genders, and socio-economic backgrounds.
- Golf can provide health enhancing physical activity to persons of all ages, and genders. Policy documents, frameworks and actions should support this.
- Policy should support play by diverse geographical, and socio-economic participants, of all genders, ages and abilities
- Policy makers should where relevant include golf as a moderate intensity physical activity in policy documents, guidance and recommendations
- Policies should promote multi-functionality (having facilities in addition to golf), diversity of facilities where possible, and sustainable practices
- Policy makers should work collaboratively with the golf industry and national associations to promote increased participation in physical activity/ golf, particularly in groups with low levels of physical activity.
- Policy documents, frameworks and actions can where relevant usefully acknowledge green space, health and well-being, nature connection, social and community, as well as economic benefits of golf.
- Cross –sectoral policies involving golf can be delivered that support the World Health Organisation Global Action Plan on Physical Activity, and the United Nations Sustainable Development Goals.

# WHAT CAN THE GOLF INDUSTRY/FACILITIES DO TO MAXIMISE HEALTH BENEFITS OF GOLF?

## RD



## PROMOTE INCLUSIVITY

Encouraging increased participation by developing environments & price structures that are welcoming to all, including beginners.



## WOMEN & GIRLS

Inspire & recruit more women & girls to play golf, & retain their participation in the game.



## PROVIDE

Warm up facilities, & stock sunscreen, water & healthy food.

## Y & Y

Yoga & golf are a great combination



## AVOID

Mandatory golf cart use, & encourage players to walk the course.

WITH OVERALL HEALTH BENEFITS. BY TAKING THESE ACTIONS THE GOLF INDUSTRY & FACILITIES CAN MAKE A BIG CONTRIBUTION TO MAXIMISING THIS.



WORLD GOLF FOUNDATION



INTERNATIONAL CONSENSUS ON GOLF & HEALTH BJSM 2018

Infographic by: Dr Danny Glover & Dr Andrew Murray 2018



WORLD GOLF FOUNDATION



INTERNATIONAL CONSENSUS ON GOLF & HEALTH BJSM 2018

Infographic by: Dr Danny Glover & Dr Andrew Murray 2018



WORLD GOLF FOUNDATION



INTERNATIONAL CONSENSUS ON GOLF & HEALTH BJSM 2018

Infographic by: Dr Danny Glover & Dr Andrew Murray 2018



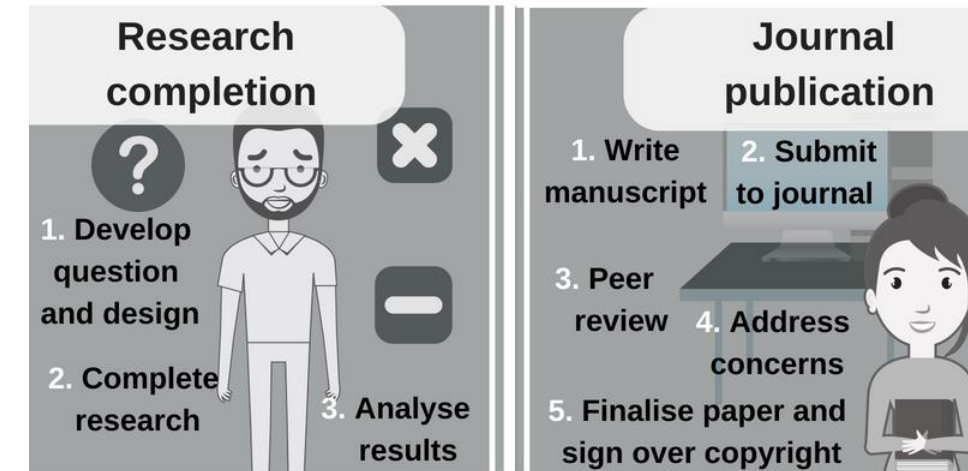


## Infographics

### Infographics and digital resources: an international consensus on golf and health

Andrew D Murray,<sup>1,2</sup> Christian J Barton,<sup>3,4</sup> Daryll Archibald,<sup>5,6</sup> Danny Glover,<sup>7</sup> Iain Robert Murray,<sup>8,9</sup> Kevin Barker,<sup>10</sup> Roger A Hawkes<sup>11,12</sup>

### TRADITIONAL STEP 1 AND 2



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

### NOVEL STEP 3 AND 4



### Statistics from Altmetric.com





This is the 'go to' site for the general public, clinicians and academics with the most up to date evidence and insight from the centre's international expert team. Make sure you sign up to stay up to date with new information, alongside upcoming events and research studies which may interest you.

**Important:** This site should never replace real world consultation. If you have an injury or health condition you should seek appropriate assessment, advice and treatment from a qualified health professional.



Our Centre



Our Research



Blog



TREK



Early OA In The Athlete Symposium

# Controlled Media

## Top Posts for all days ending 2020-05-21 (Summarized)

[7 Days](#) | [30 Days](#) | [Quarter](#) | [Year](#) | **All time**

### All Time

Title	Views
<a href="#">5 tips to help treat your knee cap pain</a>	218,867
<a href="#">10 things not to do if you have lower limb tendon pain</a>	46,547
<a href="#">Home page / Archives</a>	35,229
<a href="#">5 myths about strength training and endurance running</a>	23,947
<a href="#">Why is my heel sore when I get out of bed? What can I do?</a>	18,038
<a href="#">4 simple functional tests after ACL injury that predict the future</a>	17,984
<a href="#">"Time to stop menisectomy"</a>	17,677
<a href="#">Sport and exercise medicine research blog</a>	17,552
<a href="#">GLA:D – Best first treatment for hip and knee OA</a>	13,048
<a href="#">Kneecap (patellofemoral) pain?</a>	9,437
<a href="#">You can run with osteoarthritis, and you don't need surgery to do it</a>	9,347
<a href="#">Blog</a>	9,175
<a href="#">ACL injury – is surgery needed to return to sport?</a>	7,229
<a href="#">Running Myth #4 Running is bad for your knees</a>	6,583
<a href="#">Running Myth #2 Not stretching enough causes injury</a>	6,228



c.barton@latrobe.edu.au



@DrChrisBarton

EXERCISE - APRIL 6, 2016

# 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



'I lived on pretty much any pain medication I could get my hands on'

# Uncontrolled Media



IMAGE

VIDEO

AUDIO

By the time he was 31, Rhys has had 11 knee surgeries. He explains how he went from severe depression due to the extreme pain, to hiking the Inca Trail.

## Recommended

13 JUL 2018 - 3:02AM  
**Quiz: facts and myths on mental illness**

12 JUL 2018 - 1:46PM  
**What does it take to be a survivor?**

12 JUL 2018 - 1:49PM  
**Women in prison: histories of trauma and abuse highlight the need for specialised care**

12 JUL 2018 - 6:26PM  
**In Baby Teeth, Links Between Chemical Exposure in Pregnancy and Autism**

11 JUL 2018 - 1:41PM  
**'You are not alone': Lifeline seeks to reach out to Chinese community**

12 JUL 2018 - 3:04PM  
**Attention!**

## Browse by



PROGRAMS



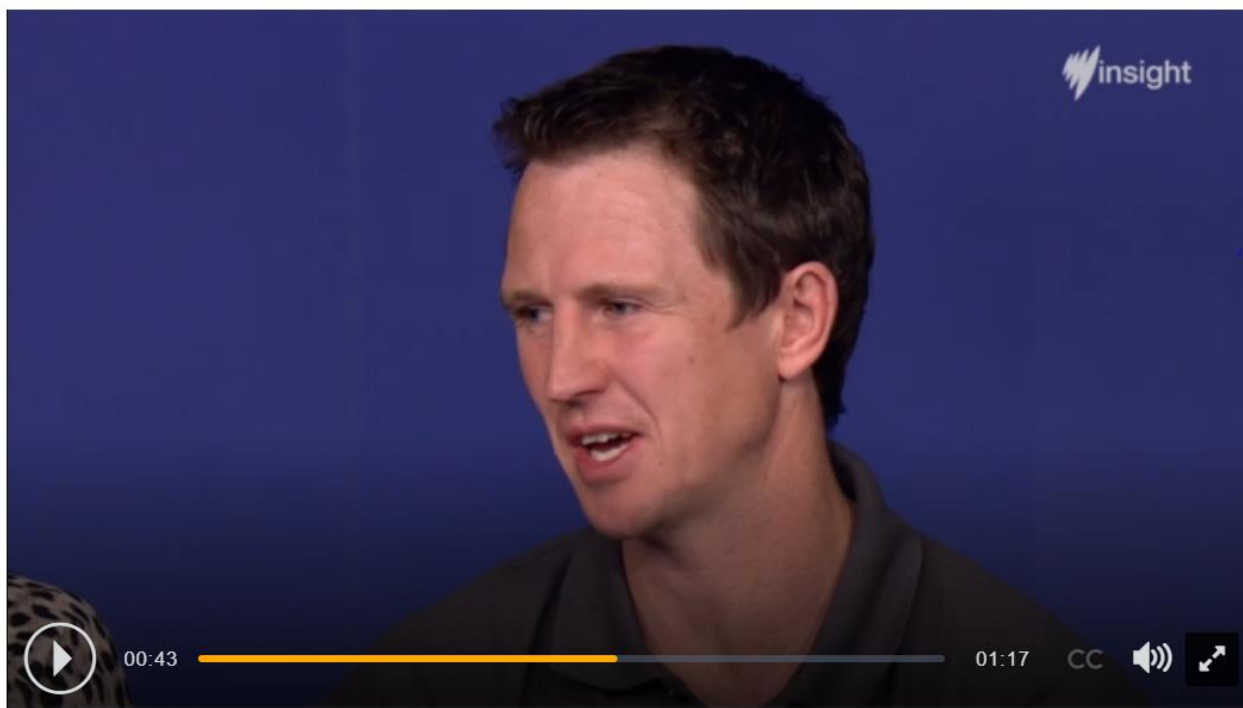


## MYTH BUSTED: Exercise isn't harmful for people with knee osteoarthritis

# Uncontrolled Media



PROGRAMS



### Recommended

11 JUL 2018 - 11:19PM  
First footage of Thai boys after traumatic cave ordeal

13 JUL 2018 - 7:19AM  
New 'exercise pill' could be a game changer in fight against obesity

13 JUL 2018 - 8:33AM  
High carb diet worse than high fat: study

12 JUL 2018 - 1:46PM  
What does it take to be a survivor?

12 JUL 2018 - 6:26PM  
In Baby Teeth, Links Between Chemical Exposure in Pregnancy and Autism

12 JUL 2018 - 3:04PM  
Attention!

### Browse by



IMAGE | VIDEO | AUDIO

Advice to rest and avoid pain is commonly provided to people with knee and other joint pains - advice that is often wrong, and harmful.



# TAKE HOMES

Patellofemoral pain: [www.patellofemoral.trekeeducation.org](http://www.patellofemoral.trekeeducation.org)  
[www.mykneecap.trekeeducation.org](http://www.mykneecap.trekeeducation.org)



1. We are inherently poor at communicating research – incentives?
2. ALL need to embrace digital innovation
3. Multimedia/online resources are powerful
4. Knowledge translation is not simple

