

50th Anniversary meeting of the European Academy of Rehabilitation
Medicine (EARM) 3 May 2019

The power of placebo effects in daily clinical practice

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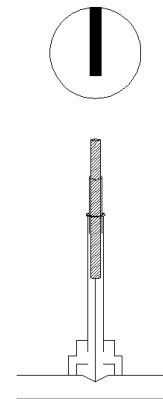
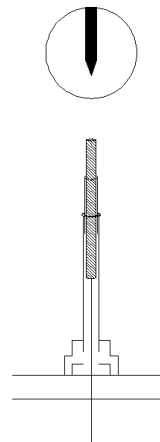
Hand-Wrist Study Group



Xpert Clinic

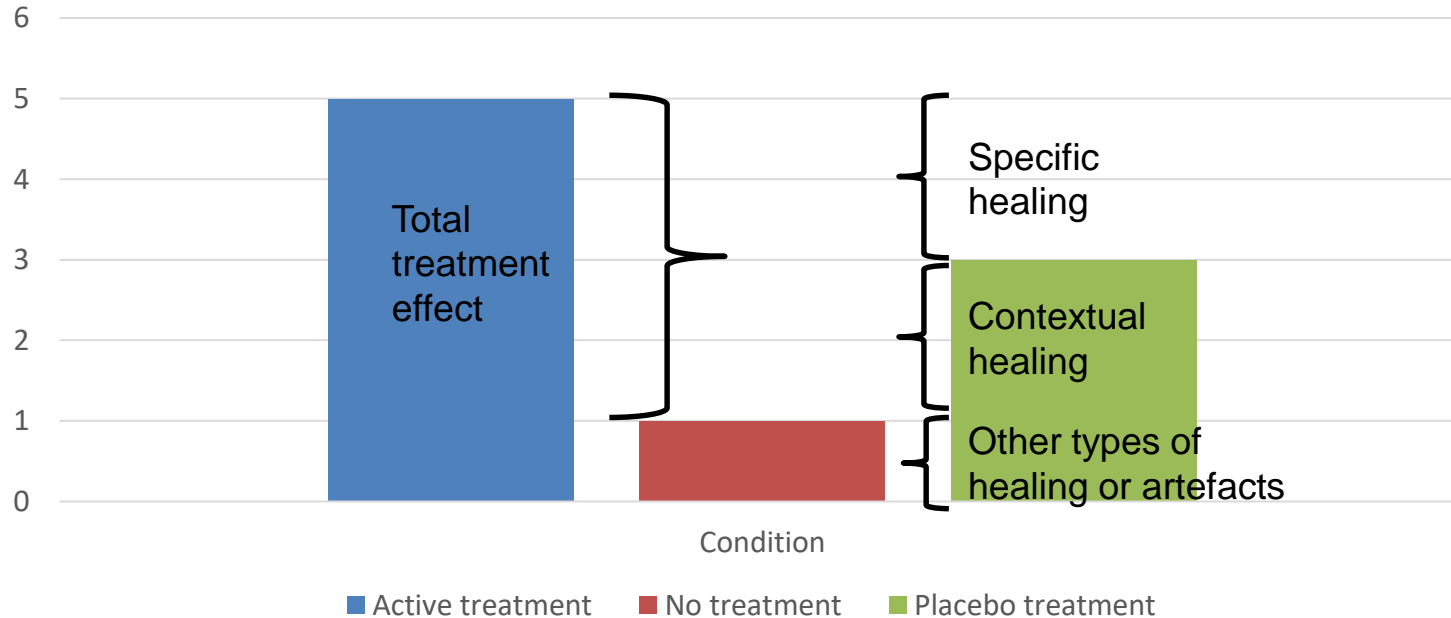


What are placebo's?



From placebo to contextual healing

3-arm Randomized Clinical Trial Design



Increasing interest in contextual healing

BMJ Open What techniques might be used to harness placebo effects in non-

Rossettini et al. *BMC Musculoskeletal Disorders* (2018) 19:27
DOI 10.1186/s12891-018-1943-8

BMC Musculoskeletal
Disorders

DEBATE

Open Access

Clinical relevance of contextual factors as triggers of placebo and nocebo effects in



mu

SCANDINAVIAN JOURNAL OF PRIMARY HEALTH CARE, 2016
VOL. 34, NO. 4, 428–433
<http://dx.doi.org/10.1080/02813432.2016.1249065>

Giacom



Taylor & Francis
Taylor & Francis Group

DISCUSSION

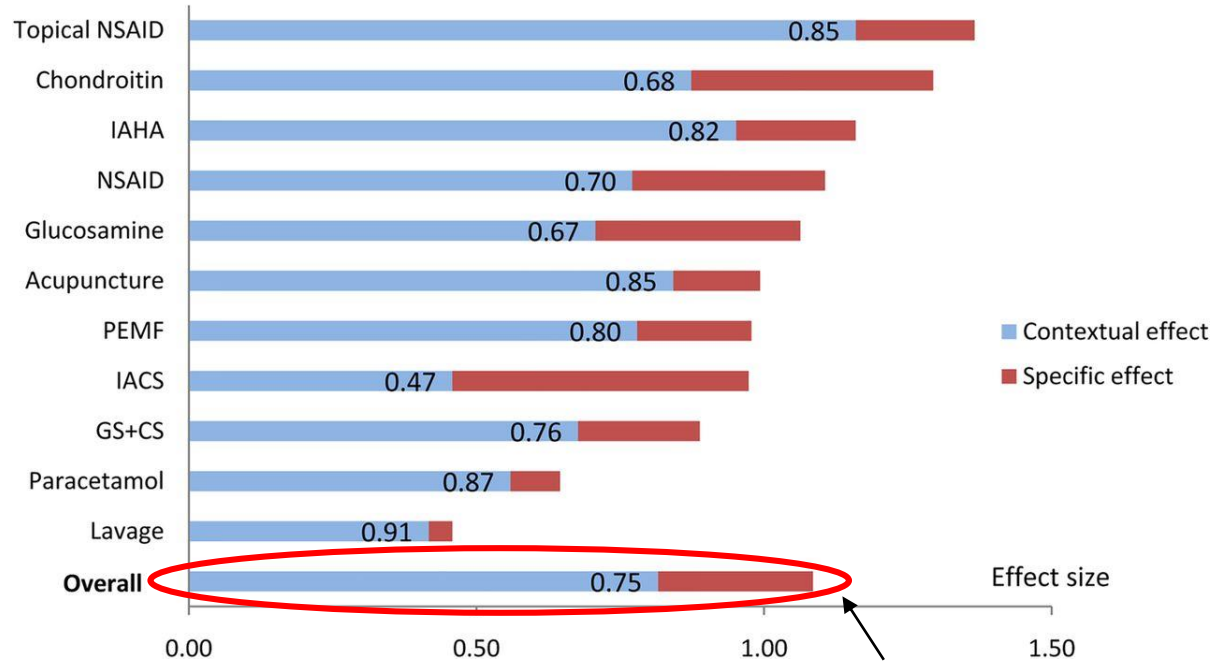
OPEN ACCESS

Context as a drug: some consequences of placebo research for primary care

P. Lucassen^a and F. Olesen^b

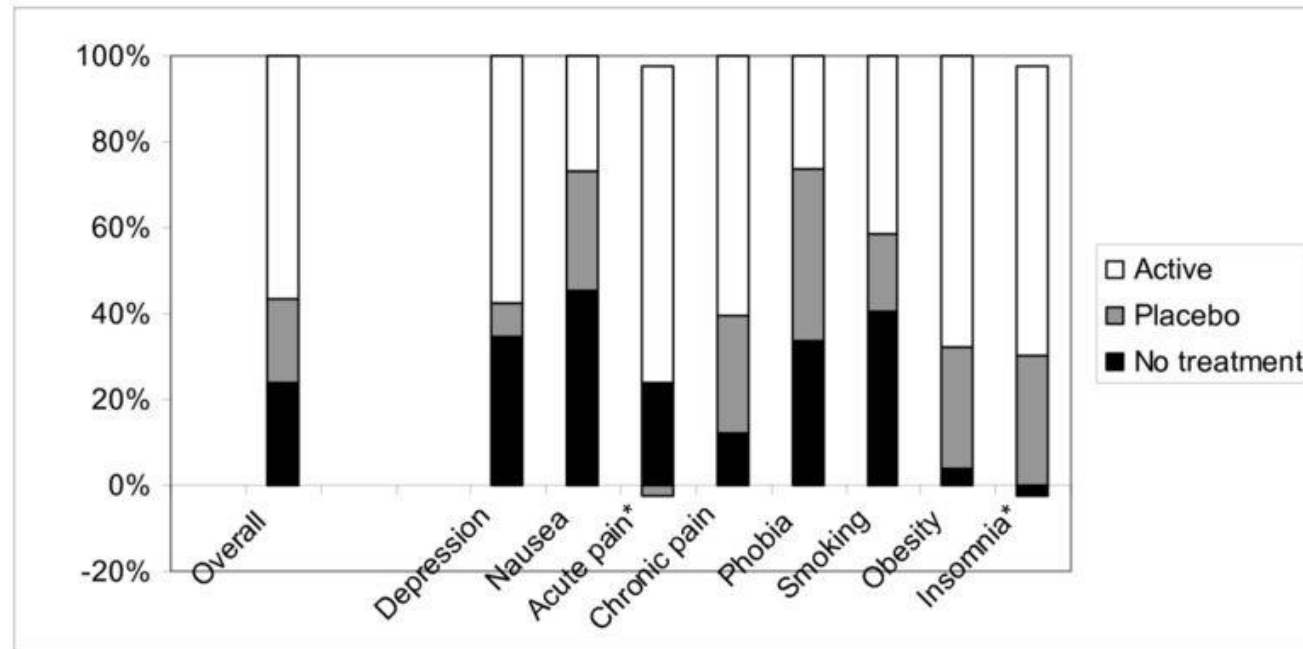
The influence of treatment context on outcomes

n = 215 studies;
more than 40.000
patients



Context explains 75 %
of the overall treatment
effect for osteoarthritis

The role of spontaneous improvement



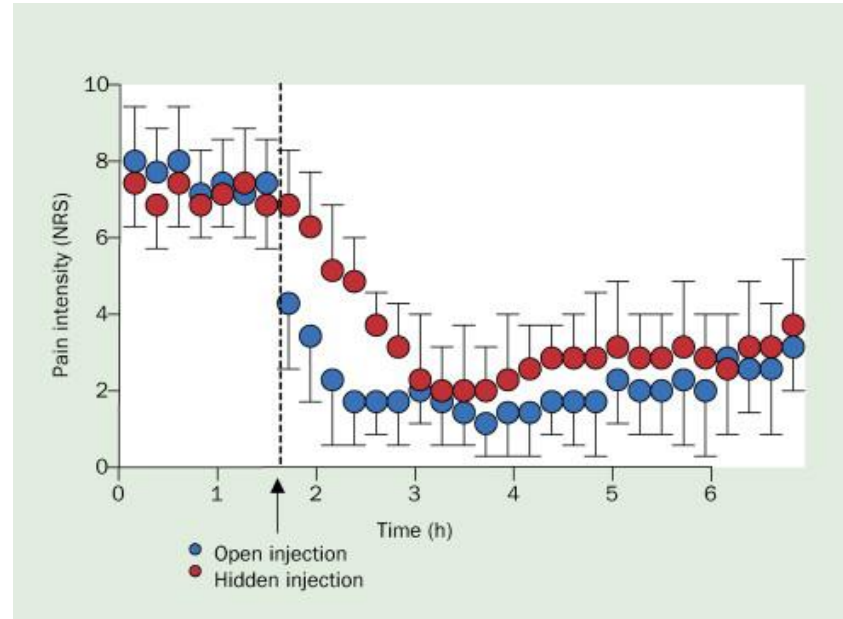
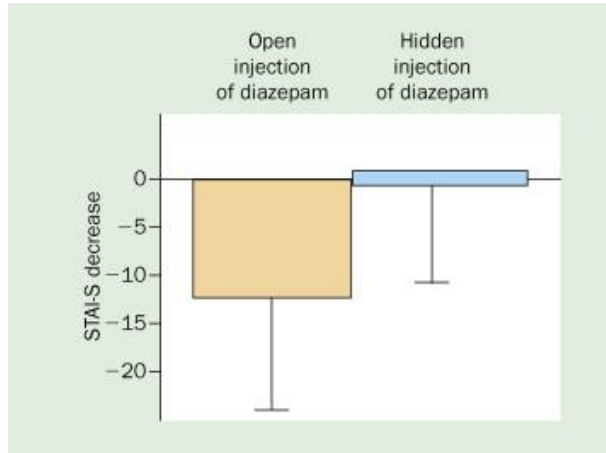
n = 37
studies

*for acute pain, the effect of placebo was negative; for insomnia, the "effect" of no treatment was negative

Effects of surgical treatment context in Dupuytren's disease

| | MHQ-change score (0-100) at 3 months post-op (n = 836) | | |
|--|--|------------------------|----------------------------|
| | Satisfaction with hand functioning | Aesthetics of the hand | Residual extension deficit |
| Communication with physician (e.g. listening to what the patient had to say; 1-10) | 6.5 (4.7-8.3) | 3.1 (1.3-4.8) | -1.8 (-3.2- -0.4) |
| Peri-operative care (e.g. experience with nursing staff; 1-10) | 3.7 (1.2-6.2) | 2.2 (-0.3-4.6)* | -1.9 (-3.9 - -0.09) |
| Post-operative care (e.g. experiences with physical therapist; 1-10) | 5.9 (3.7-8.1) | 2.4 (0.3-4.4) | -1.8 (-3.4 - -0.08) |
| General information (e.g. experiences with information on website; 1-10) | 5.0 (2.8-7.3) | 1.9 (-0.2-4.0)* | -2.1 (-3.9 - -0.6) |
| Treatment information (b.v. experiences with information provision about treatment; 1-10) | 6.8 (4.9-8.7) | 3.6 (1.8-5.4) | -2.1 (-3.6 - -0.6) |
| Quality of facility (e.g. experiences with accesibility of clinic; 1-10) | 3.1 (0.8-5.4) | 1.1 (-1.0-3.3)* | -0.5 (-2.3 – 1.2)* |
| Explained variance by PREMs | 11% | 4.7% | 6.0% |

The effect of hidden treatments

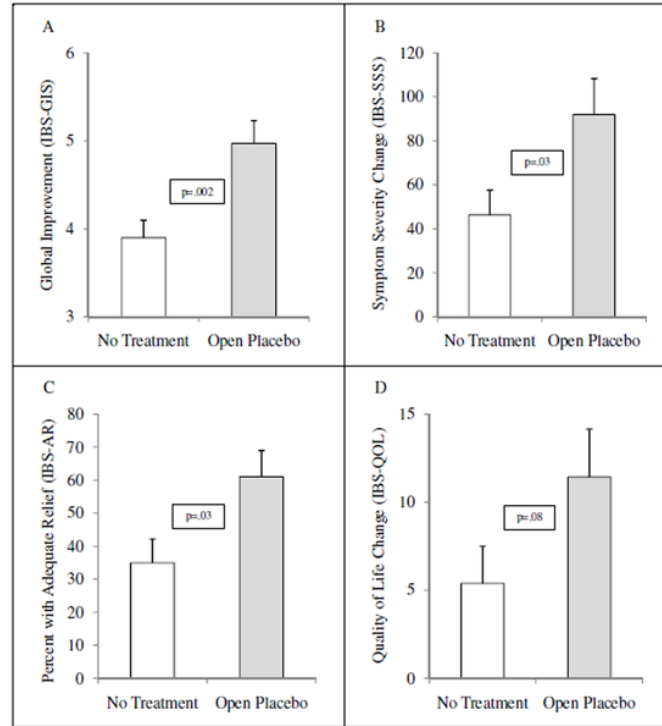


The effect of open-label placebo

- Does a placebo work without deception?
- Let's try!
- This sugar pill is:
 - Powerful
 - Body can react automatically
 - Positive attitude helps, but not necessary
 - Take your pills faithfully



Positive effect of open label placebo on irritable bowel syndrome



Outcomes at the 21-Day Endpoint by Treatment Group.

Buy your own placebo pills

Zeebo – Honest Placebo Pills Designed to Help You Create a Safe Experience on Your Path to Well-being by Zeebo

★★★★★ This is an **HONEST** placebo

December 15, 2018

When you're in pain or sick, it always helps to feel like you're doing something. This effect is real, even if it doesn't come from the biochemical action of the pill itself. The product gives you a way to harness this effect, without tricking you. They even use a guided journaling process, which can be very effective in providing relief. This is all sound psychology. This is genius marketing which uses honesty, rather than misdirection, to sell an inert product.

You may or may not respond to placebo. Do not use Zeebo™ to replace or delay medical treatment. Use Zeebo™ without deceit*.

* These statements have not been evaluated by the FDA. This product is not intended to diagnose, cure, treat or prevent any disease.



★☆☆☆☆ One Star

July 21, 2015

Verified Purchase

This is a joke, don't buy this

Which aspects of mindset matter?

B-IPQ

Broadbent
et al., 2006

I'm very
concerned about
my illness

PHQ-4

Kroenke et
al., 2009

I feel
depressed

CEQ

Deville &
Borkovec, 2000

I do not believe my
treatment will help
me much

I keep thinking
about how much it
hurts

PCS

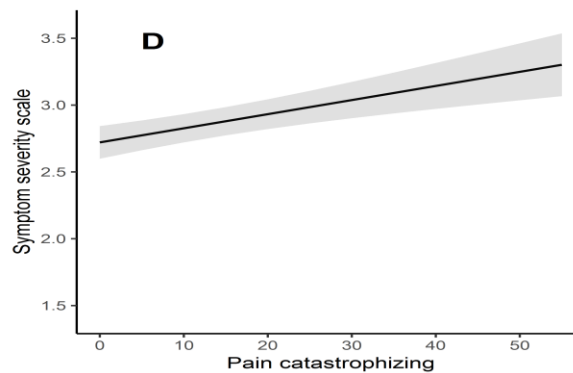
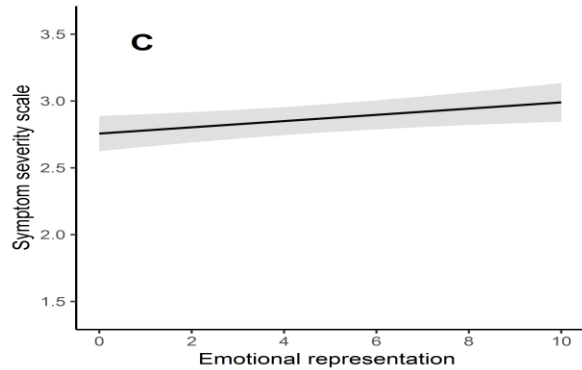
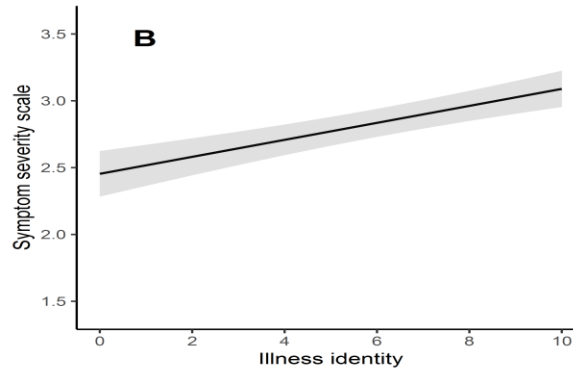
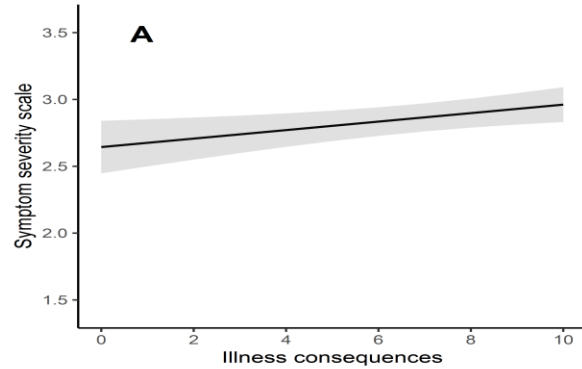
Sullivan et
al., 1995



Key research questions

- How does the patient mindset affect the experience of hand- or wrist complaints?
- How does the patient mindset affect the success of hand- or wrist treatments?
- How can the patient mindset be influenced to achieve better outcomes?

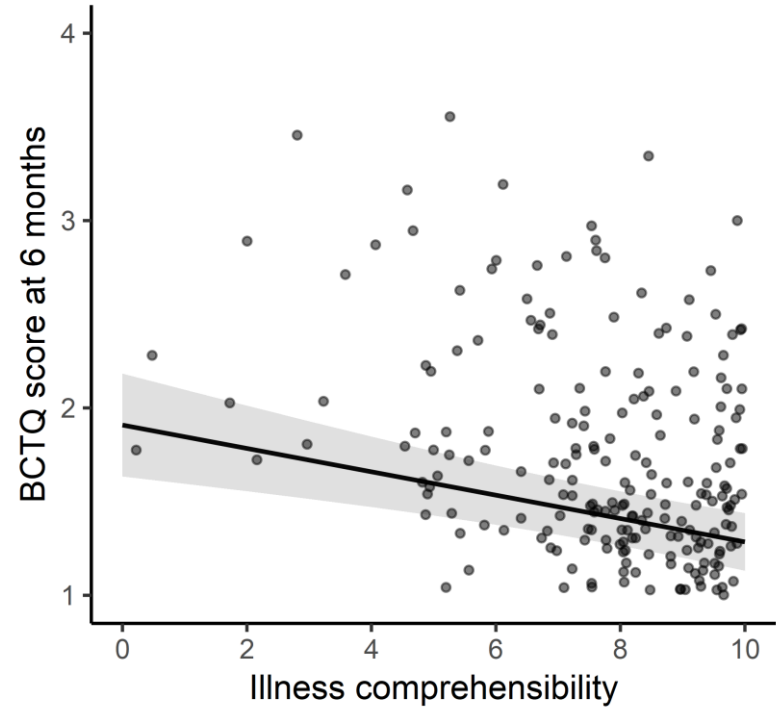
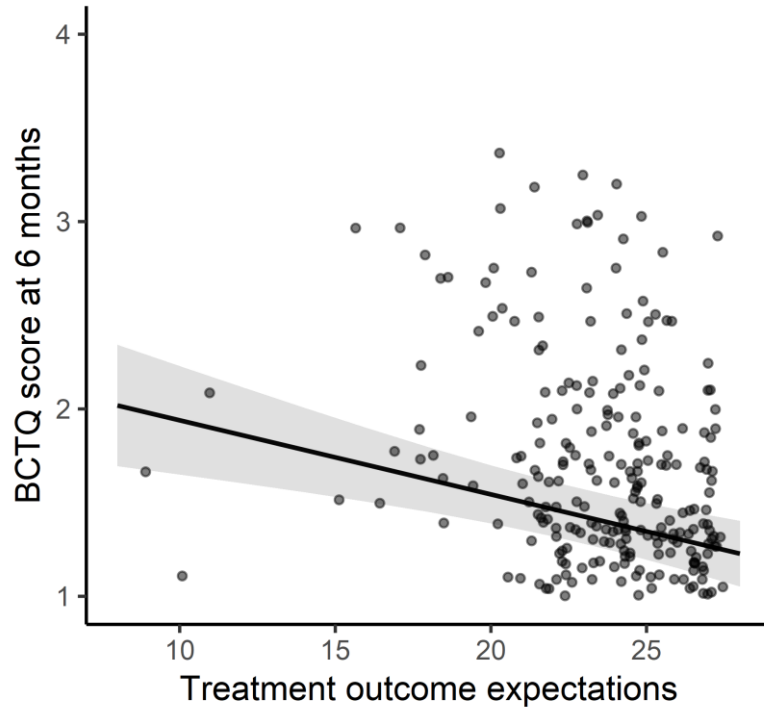
Mindset and Carpal Tunnel Syndrome complaints



Mindset explains
20-25% of variance
in complaints

N = 674

Patient mindset and the success of carpal tunnel release

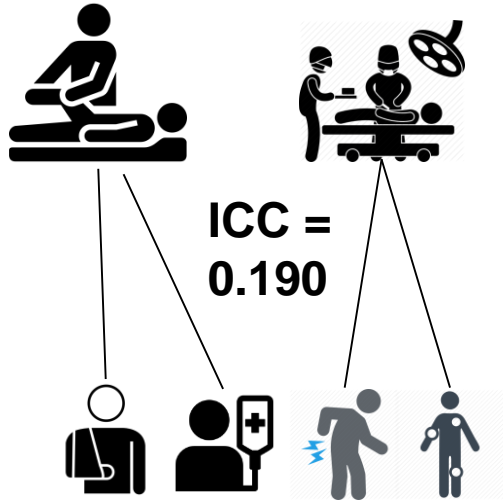


Sun et al., *in preparation*

Mindset: 13% of improvement in complaints

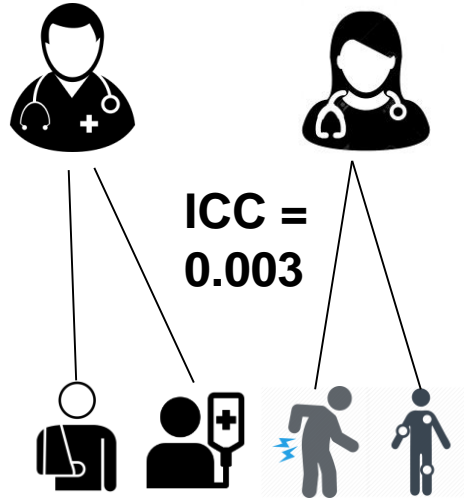
Patient outcome expectations in daily clinical practice

n = 37



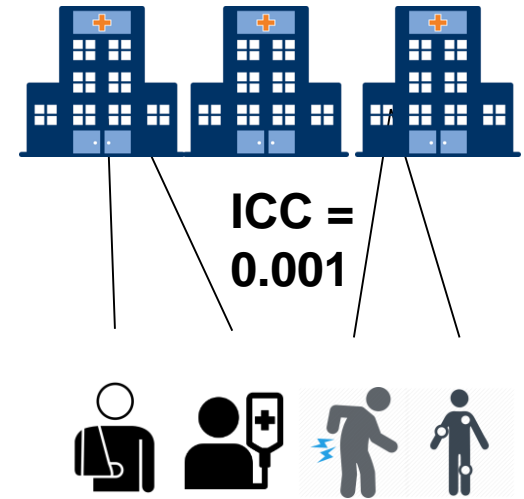
n = 2571

n = 21



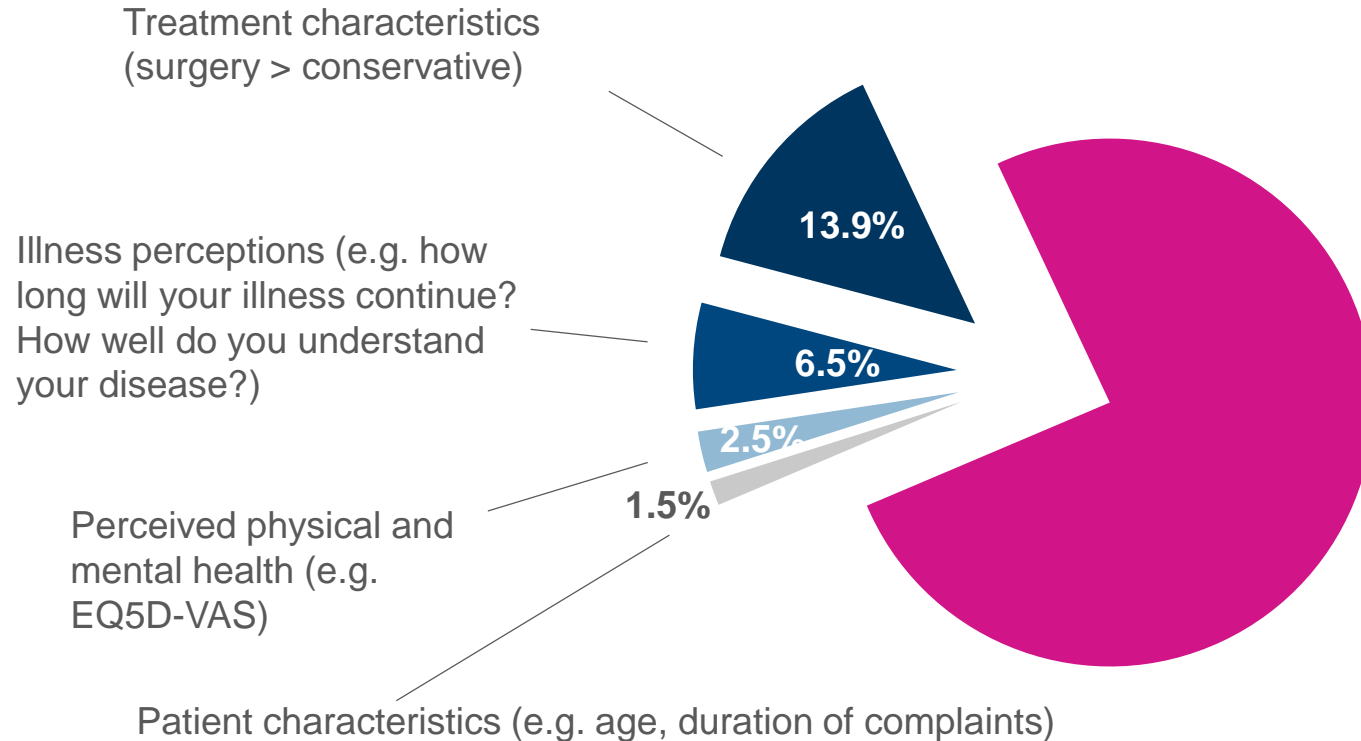
n = 2571

n = 18



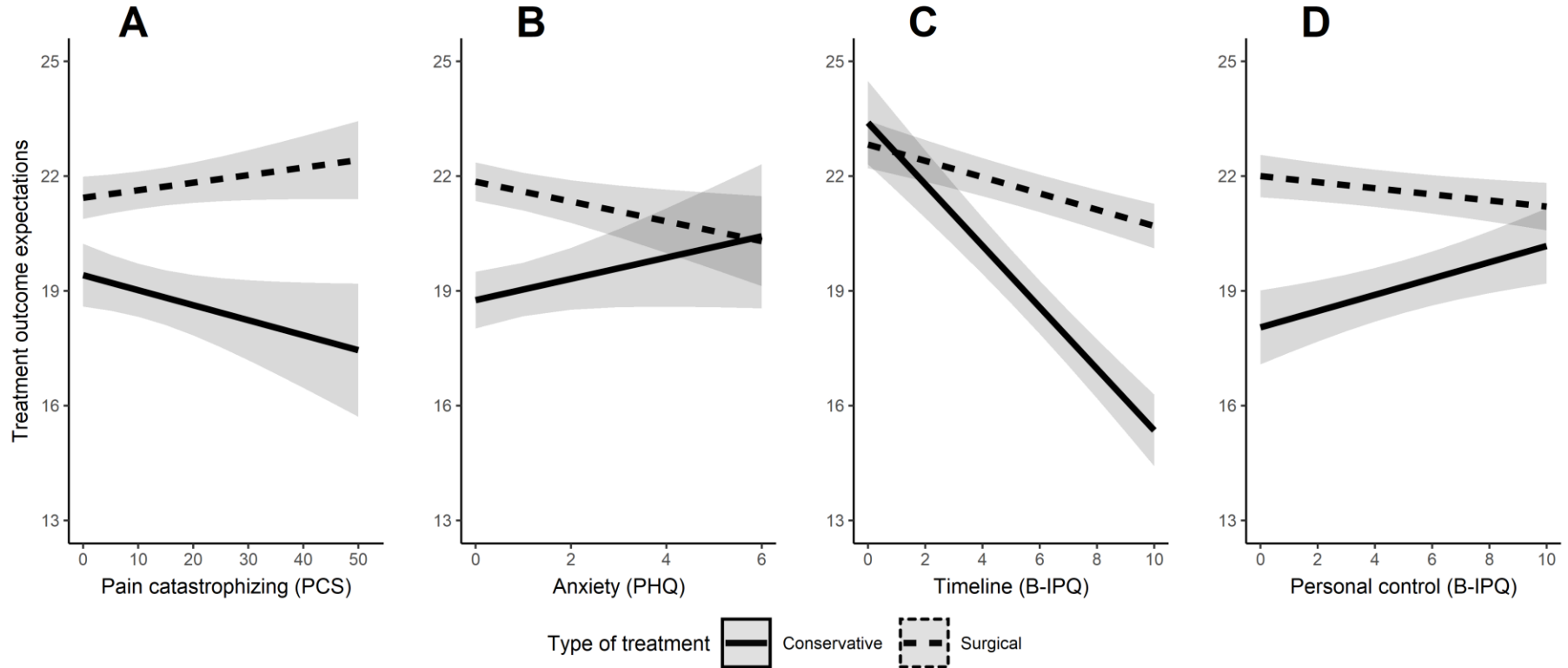
n = 2571

Which factors influence outcome expectations?



N = 2571

Interaction mindset and type of treatment



Placebo injections work better than placebo pills

Table. Standardized Mean Differences (Adjusted for Age, Sex, and Baseline Pain)

| Comparators | Oral Plus Topical Placebo |
|---------------------------|---------------------------|
| Oral placebo | 0.12 (−0.09 to 0.33) |
| Oral plus topical placebo | 0.29† (0.09 to 0.49) |
| Topical placebo | 0.17 (−0.11 to 0.44) |

* Values are standardized mean differences (95% credible intervals) vs. the left-hand intervention (row label).

† Statistically significant effect sizes.

A SURGEON CUTS
THROUGH THE EVIDENCE

SURGERY,
THE ULTIMATE
PLACEBO



o*

ios

cebo

Intra-articular Placebo

to 0.38)

0.29† (0.09 to 0.49)

to 0.31)

0.17 (−0.11 to 0.44)

0.09 (−0.17 to 0.35)

(column heading) intervention in each comparison

IAN HARRIS

Bannuru et al., 2015 *Ann Intern Med*.

Physical therapy, the ultimate placebo?



Collaboration with Delft University of Technology (Prof. Pieter Desmet and master-student **Nathan op den Kelder**)

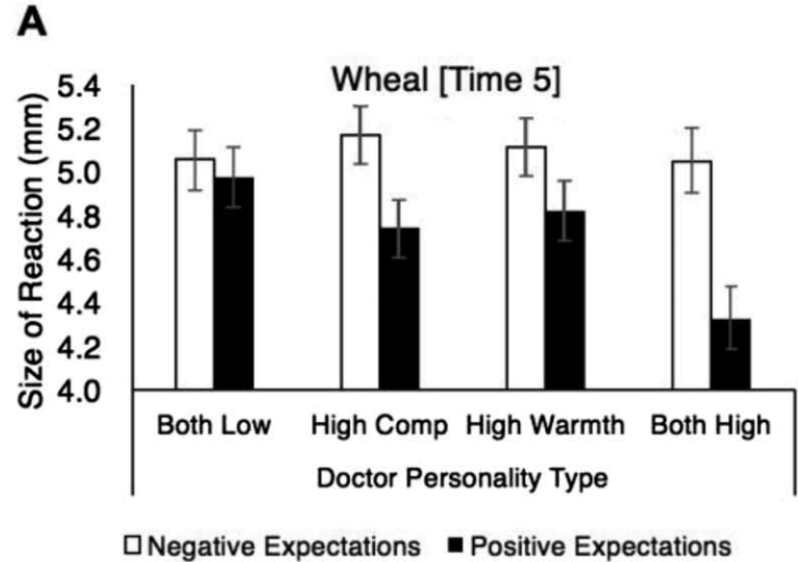
Expectation management for better patient outcomes?



Expectations about the
efficacy of treatments

How to invest as a clinician?

- Is my health care practice placebogenic?
- Instilling positive treatment expectations in ethically sound ways
 - Listen carefully to your patients
 - Shared decision making
 - Use positive frames
 - Be warm and competent



Howe et al. Health Psychol 2017;36(11):1074

How to invest as a researcher?



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Thank you for your attention!



Ruud Selles



Harm Slijper



Jarry Porsius



Steven Hovius



Reinier Feitz



Christianne
van Nieuwenhoven



Guus Vermeulen



Eric Walbeehm



Jonathan Tsehaie



Stefanie Evers



Kim Spekrijse



Verena Schrier



Chao Zhou



Elrozy
Andrinopoulou



Dimitris Rizopoulos



Robbert Wouters



Willemijn
De Ridder



Yara van Kooij



Ralph Poelstra



Mark van der Oest



Pepijn Sun



Muhammed Ali
Kedilioglu



Miguel Jansen



Marloes ter Stege



Lisa Hoogendam

Hand-Wrist
Study Group



Joris Teunissen