Placebo response

Its role in OA research and clinical practice

Paul Dieppe

Professor of Health and Wellbeing, Exeter, UK

UNIVERSITY OF EXETER | MEDICAL SCHOOL

THE INSTITUTE FOR INTEGRATIVE HEALTH

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I have no other declarations of interest and will now stop using slides with logos

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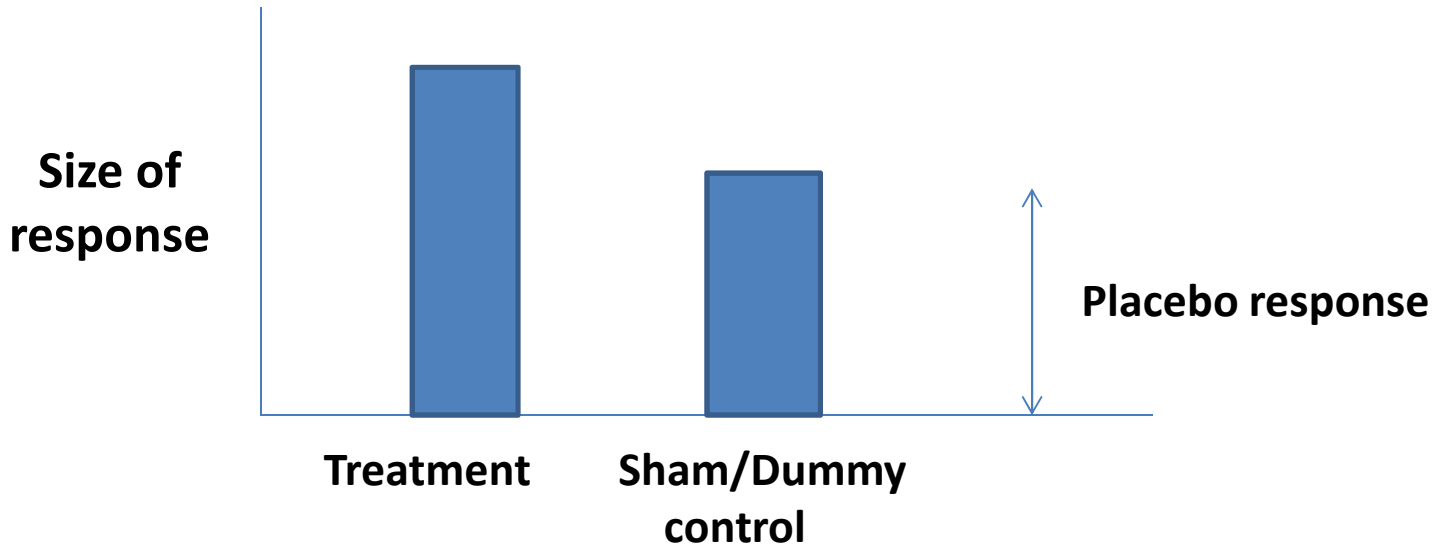
Outline of Presentation

1. The placebo effect and response
2. The efficacy and effectiveness of placebos in osteoarthritis
3. How it might help us understand OA
4. The nocebo effect
5. Theories on placebo and nocebo effects
6. Implications for clinical practice

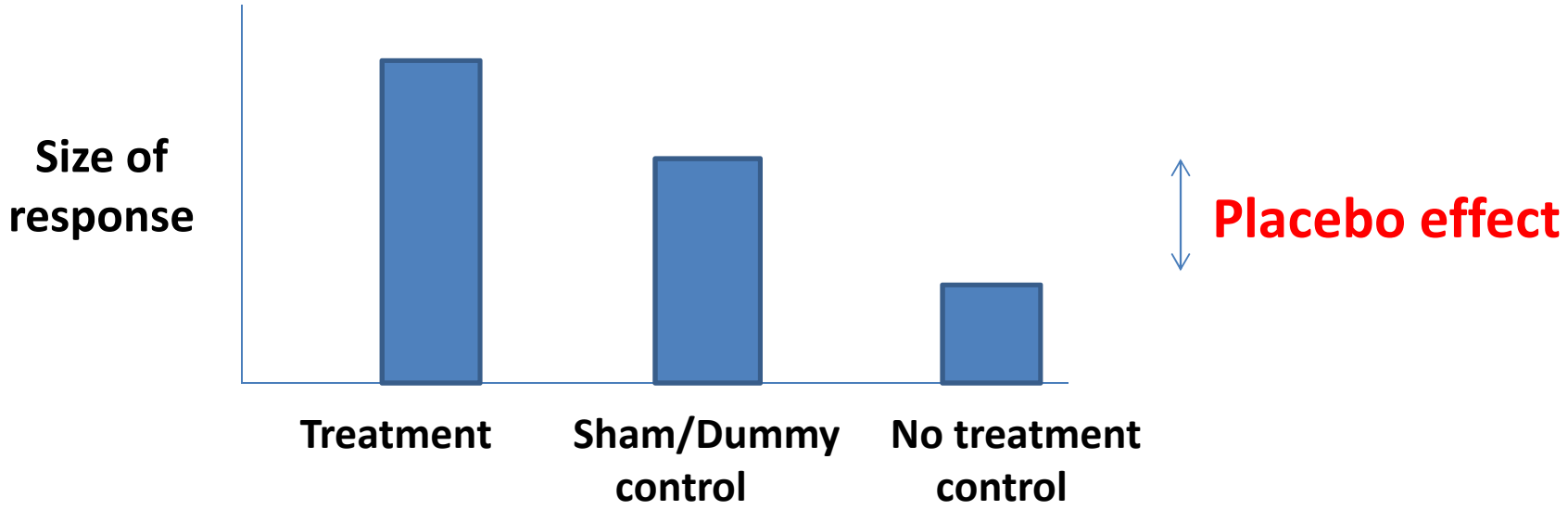
1) Placebo effect/response

The placebo response is an artificial construct derived from clinical trial methodology



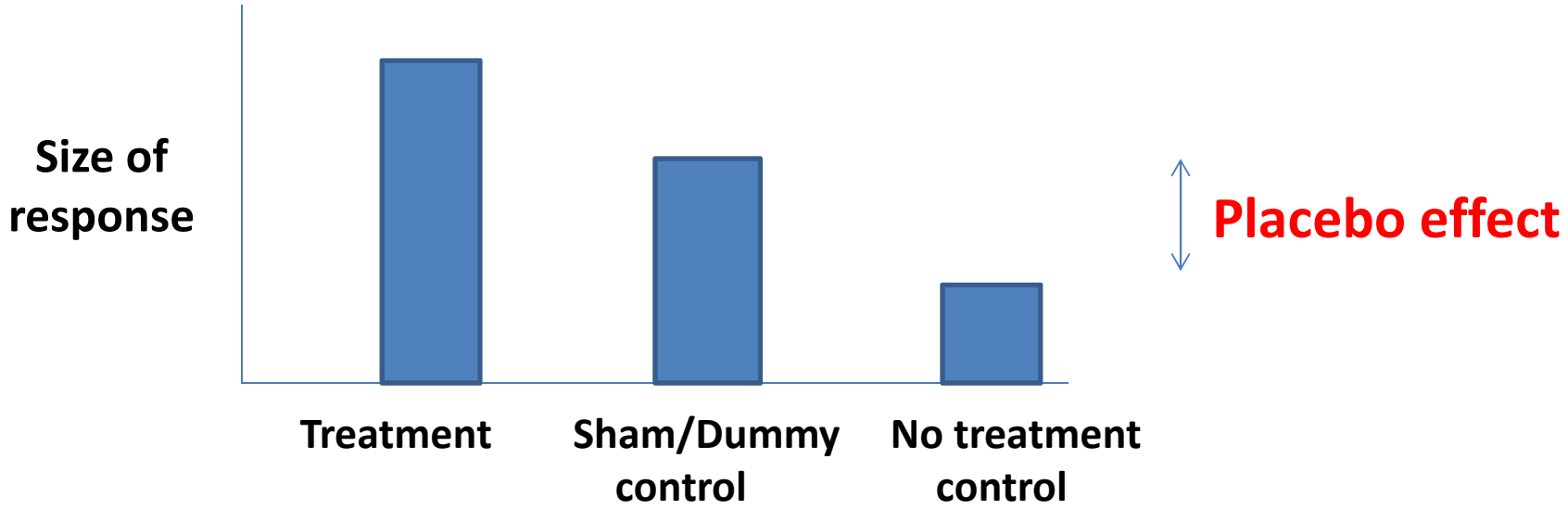
1) Placebo effect/response

The placebo effect is more interesting



1) Placebo effect/response

It is interesting that giving someone a sham or dummy treatment, which ‘should’ have no effect, can be efficacious



Advertising slogan:

“Nothing works better than Annadin”

Response of someone who understands placebo:

“Then use nothing”

‘NOTHING’ IS A VERY EFFECTIVE THERAPY

‘NOTHING’ IS A VERY EFFECTIVE THERAPY

Although, of course, it is not really ‘nothing’

Efficacy and effectiveness of 'nothing' in OA

Efficacy (effect in the artificial setting of a clinical trial – 'can it work?') is known to be very high:

> Effect size of about 0.5 for pain and stiffness (Zhang et al 2008)

Effectiveness (what happens in normal practice) is not known, but as both a clinician and 'patient' with knee OA I think it can have a HUGE EFFECT

The ‘natural history’ of OA

In longitudinal studies of OA that I was involved in many years ago we found that lots of people got a lot better over time (Cushnaghan et al)

At the time we thought it was the natural history of the condition, but I now think it might have been the placebo effect

Experience trumps evidence

An experience of the ‘placebo effect in OA

I have advanced radiographic OA of both knees. One hurts sometimes, the other does not. It was very bad a couple of years ago, and I was seeing a surgeon about replacement

Instead I met a healer, who to my surprise, has ‘healed’ me of knee pain

‘Healing’ does work

The latest of several positive systematic reviews and meta-analyses of healing studies has just been published (Roe et al Explore 2015)

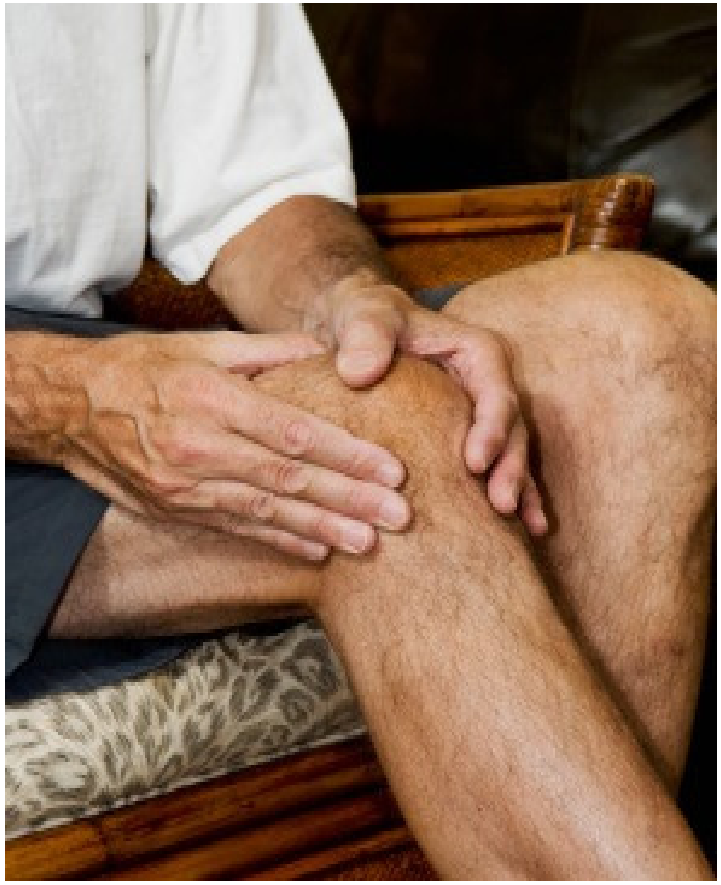
It is probably mediated through the focussed attention with good intention of sensitive people (Warber and Dieppe, in Press)

Maybe this is all it takes to help someone with OA:

Focussed attention with good intention

And maybe this is the basis of much of the ‘placebo effect’

3) How might this help us understand OA?



HUGELY

It might help us sort out the discordance between pathology and symptoms, and the relationship between pathophysiology and illness

What happens when OA is 'healed'? (i.e. following a positive placebo effect)

1. Which symptoms are better and which are still there?
2. How long does it last?

3. Has the radiograph changed?
4. Can any metabolic changes be detected?

This is all so EXCITING! **(Poster 584)**

4) Placebo's 'evil twin' – the nocebo effect

The work of my ex-PhD student Maddy Greville-Harris

See "Bad is more powerful than good: the nocebo effect in medical consultations"

Am J Med 2015; 128: 126-9

Doing ‘nothing’ (with or without the use of any specific intervention) can make patients ***much*** worse

This is most likely to occur when one or both people involved in a consultation are feeling unsafe or anxious

Bad is more even powerful than good

5) Theories on how it all works

Psychological theories:

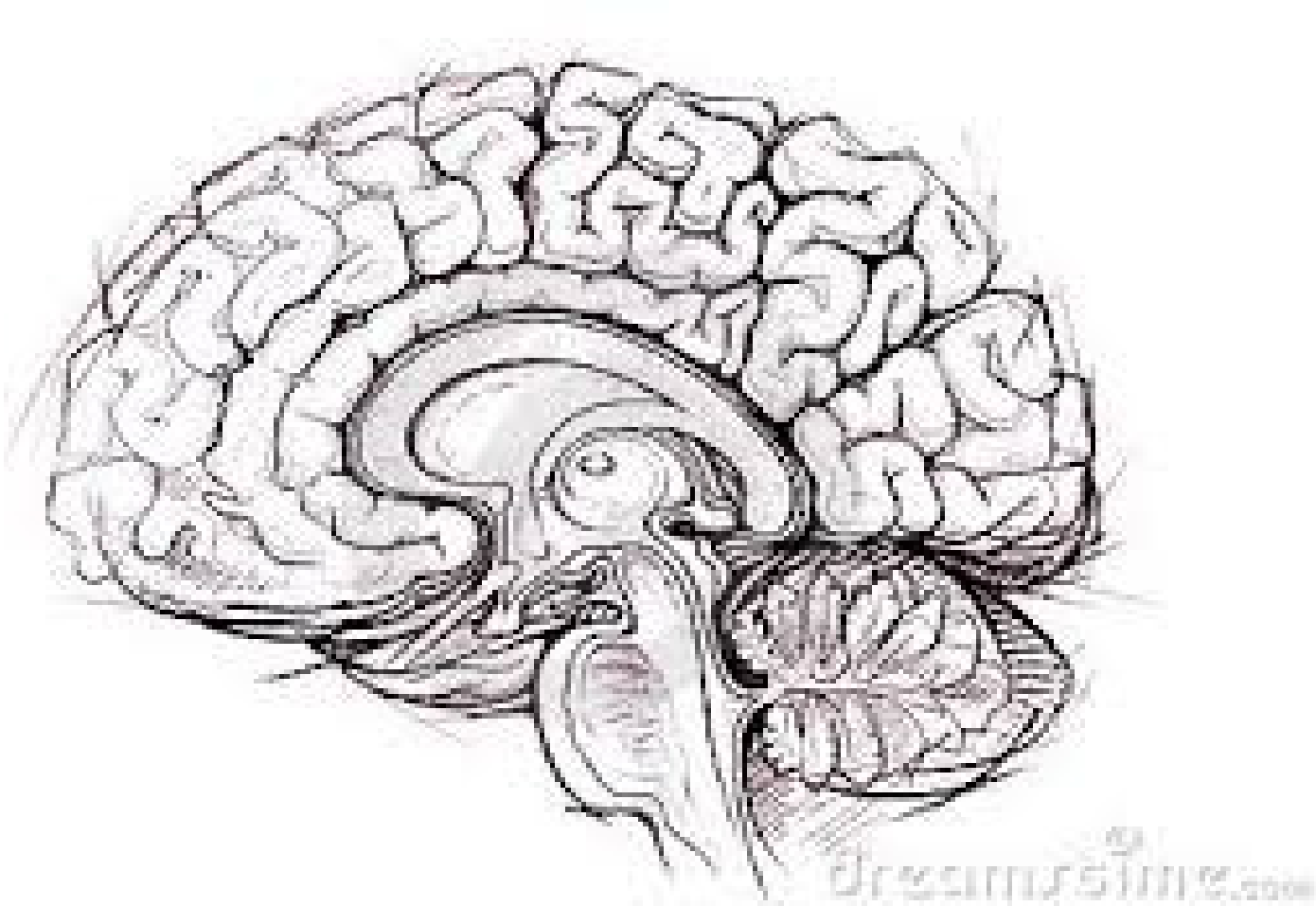
- Expectation (+ve or –ve)
- Conditioning(+ve or –ve)
- Making meaning (Moerman)

5) Theories on how it all works

Neurophysiological theories:

- Activation/inhibition of descending inhibitory pathways of pain control
- Release/blockage of natural endorphins
- Others

Is it really just about what is going on in the brain of the patient?



NO

I think this research (which I have contributed to!) misses the point!

It is about the quality of interactions between individuals

And there are both psychological and neurophysiological theories of this

One psychological theory: ‘Validation and Invalidation’

A communication theory developed by Linehan et al in the context of dialectical behavioural therapy

It goes beyond empathy and compassion. You can be compassionate to another, but if they do not feel ‘validated’ you achieve nothing

Validation communicates acceptance and understanding of another’s thoughts and behaviours, invalidation communicates the opposite

Validation and invalidation depend on your behaviour as well as on what you say

Validation and invalidation depend on your behaviour as well as on what you say

It is easy to invalidate people 'by mistake'

An example from the research of Maddy Greville-Harris

The patient complains of pain

The doctor, with the best of intention, says something like – “I don’t think you need to worry, I cannot find anything serious wrong with you”

The patient thinks “He does not even believe me, he thinks I am not even in pain”

One neurophysiological theory

Stephen Porges' 'polyvagal theory' of social interaction

We are hard wired for a nurturing response which is the opposite of the fight or flight response, and which is activated when we feel safe (rather than unsafe)

When the nurturing response is activated we communicate better with other people

6) Implications for clinical practice

What can I say?

The implications of how you behave when with a patient are massive

Just be 'present' – be there for another human in a non-judgemental way