# Mindfulness effects on pain beyond placebo effects

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With this study we aim to disentangle mindfulness and placebo effects on pain. We investigate how decentering (a core component of mindfulness) and positive treatment expectations (a core component of placebo effects) interactively contribute to...

**Ethische beoordeling** Positief advies

**Status** Werving nog niet gestart

Type aandoening -

**Onderzoekstype** Interventie onderzoek

# **Samenvatting**

#### ID

NL-OMON22609

#### **Bron**

Nationaal Trial Register

#### **Verkorte titel**

TBA

#### **Aandoening**

The study is conducted in a sample of healthy volunteers.

# **Ondersteuning**

**Primaire sponsor:** Leiden University, Leiden, the Netherlands

Overige ondersteuning: Mind & Life Europe

# Onderzoeksproduct en/of interventie

#### **Uitkomstmaten**

#### Primaire uitkomstmaten

Average pain unpleasantness during the post-intervention cold pressor test (CPT, maximally 3-minute immersion, with ratings every 30 seconds on a numerical rating scale ranging from

0 no pain – 10 most unpleasant pain imaginable). In the analyses, this will be controlled for average pain unpleasantness during the baseline CPT.

# **Toelichting onderzoek**

#### Achtergrond van het onderzoek

Understanding how mindfulness really works is a requirement for its optimal application to reduce pain and suffering. It has been suggested that mindfulness' effects might be attributed to placebo effects. Yet, it has been difficult to disentangle how the different elements of a mindfulness-based intervention contribute to pain relief in regular RCTs. To this end, we propose a rigorous examination of a putative core element of mindfulness (i.e. decentering, the insight that experiences are impermanent) and of placebo effects (i.e. positive treatment expectancies). These elements will be manipulated in a balanced placebo design. This allows for better understanding the potential additive or interactive effects of the elements of mindfulness-based interventions on pain relief. This research provides a better understanding of how mindfulness might work, and will thus inform on future research methods and on methods for optimizing mindfulness effects.

#### Doel van het onderzoek

With this study we aim to disentangle mindfulness and placebo effects on pain. We investigate how decentering (a core component of mindfulness) and positive treatment expectations (a core component of placebo effects) interactively contribute to pain relief. We do so using a balanced-placebo design, i.e., a 2 x 2 factorial between-participants design, in which participants receive either a mindful decentering or sham decentering treatment which is introduced as being either an effective or a sham treatment. At baseline and post-intervention, pain unpleasantness will be assessed during a cold pressor test.

In our primary analysis, we will examine if the mindful decentering and positive treatment expectations manipulations additively or interactively affect pain unpleasantness. The latter would suggest, depending on the direction of the interaction, that the combination of mindful decentering and positive treatment expectations is either more - or less - effective than the summed effect.

Secondary, we will examine the additive or interactive effects of the decentering and expectation manipulations on pain intensity during the cold pressor test. Additional exploratory hypotheses are detailed in the analysis plan (DOI: 10.17605/OSF.IO/H98WT, https://osf.io/h98wt/).

#### Onderzoeksopzet

Participants take part in one experimental session. The primary outcome is assessed during a single post-intervention cold pressor test of maximally 3 minutes during which pain unpleasantness and intensity are assessed every 30 seconds.

### Onderzoeksproduct en/of interventie

#### **Expectation induction**

Participants in the effective treatment expectations groups will be told that the training they will receive is a widely used training known to be very effective for pain relief. Participants in the sham treatment expectations group will be told that the training is a widely used sham training known to not affect pain.

#### Decentering induction

In the mindful decentering group, participants will listen to a short audiotape, with at its basis the insight that any thought or sensation arises and then dissipates again. Thus, that any such experience can be observed as a transient event. On the surface, the sham decentering instruction seems similar to the mindful decentering induction, but it is different in terms of content. Participants will listen to a short audiotape. A similar structure, wording, and calmness is given to this induction. Importantly, however, this induction does not include the key insight that experiences are impermanent events that can be observed as they arise and dissipate. Participants in both groups are asked to adopt the instructed perspective in the subsequent cold pressor test.

# Contactpersonen

#### **Publiek**

Leiden University Kaya Peerdeman

0715273622

# Wetenschappelijk

Leiden University Kaya Peerdeman

0715273622

# **Deelname** eisen

# Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

- 1) 18-35 years
- 2) Fluent in Dutch

# Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

- 1) Severe physical or psychological morbidity that could adversely affect study participation (e.g., heart and lung diseases, or DSM psychiatric disorders),
- 2) Chronic pain complaints (≥ 6 months) at present or in the past,
- 3) Current pain (>1 on 0-10 numerical rating scale),
- 4) Raynaud's disease,
- 5) Extensive injuries of the hand or lower arm,
- 6) Current use of (analgesic) medication (e.g., analgesic in last 24 hours), and
- 7) Current pregnancy or breastfeeding,
- 8) Consumption of alcohol (>1 glass) or drug in last 24 hours.

# **Onderzoeksopzet**

### **Opzet**

Type: Interventie onderzoek

Onderzoeksmodel: Parallel

Toewijzing: Gerandomiseerd

Blindering: Enkelblind

Controle: Actieve controle groep

#### **Deelname**

Nederland

Status: Werving nog niet gestart

(Verwachte) startdatum: 08-09-2020

Aantal proefpersonen: 132

Type: Verwachte startdatum

# Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

#### Wordt de data na het onderzoek gedeeld: Ja

#### **Toelichting**

Coded research data will be made publicly available in an online data repository

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# **Ethische beoordeling**

Positief advies

03-09-2020 Datum:

Soort: Eerste indiening

# **Registraties**

## Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

# Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

# In overige registers

Register ID

NTR-new NL8877

Leiden University Psychology Research Ethics Committee : 2020-02-28-K.J. Peerdeman-V1-2233 Ander register

# Resultaten