

## **The power of imagination: Neural effects of imagined placebo intake**

### **ABSTRACT:**

#### **Background**

A commonly established protocol for the administration of open-label placebos (OLPs) – placebos honestly prescribed – emphasizes the necessity of ingesting the pill for the placebo effect to manifest.

#### **Aims**

The current functional magnetic resonance imaging study used a novel approach to OLP administration: the imaginary intake of an OLP pill for regulating disgust.

#### **Method**

A total of 99 females were randomly allocated to one of three groups that either swallowed a placebo pill (OLP Pill), imagined the intake of a placebo pill (Imaginary Pill) or passively viewed (PV) repulsive and neutral images.

#### **Results**

The imaginary pill reduced reported disgust more effectively than the OLP pill and was also perceived as a more plausible method to reduce emotional distress. Relative to the OLP pill, the imaginary pill lowered neural activity in a region of interest involved in disgust processing: the pallidum. No significant differences in brain activation were found when comparing the OLP pill with PV.

#### **Conclusions**

These findings highlight that imagining the intake of an OLP emerged as a superior method for regulating feelings of disgust compared to the actual ingestion of a placebo pill. The study's innovative approach sheds new light on the potential of placebo interventions in emotion regulation.

#### **Keywords**

Placebo, Nondeceptive, Imagery, Emotion regulation

### **Published Work:**

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