

THE POWER OF IMAGINATION: NEURAL EFFECTS OF IMAGINARY PLACEBO INTAKE

Anne Schienle

Clinical Psychology, University of Graz, Austria

Grant 03/22

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: To investigate whether the oral intake of a placebo pill is necessary for the elicitation of the placebo effect on a subjective and neural level.

Method: This functional magnetic resonance imaging (fMRI) study used a creative approach to OLP administration: the imaginary intake of an OLP pill for regulating disgust. 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.

Preliminary results: The imaginary pill reduced reported disgust more effectively than the OLP pill and was also perceived as a more plausible method to alleviate 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, Imagery, Disgust, Plausibility, fMRI

E-mail contact: anne.schienle@uni-graz.at