

The role of non-verbal behavior on placebo and nocebo effects. Psychophysiological experiments

ABSTRACT:

Background

Nonverbal behaviors (NBs) of healthcare providers impact pain reports and treatment outcomes, however, no investigation so far has systematically investigated the impact of healthcare providers NBs on pain reports and treatment outcomes.

Aims

The aim of this project was to investigate the role of healthcare providers' NBs on pain reports and placebo effects.

Method

The project consisted of one laboratory experiment and analysis of data from a Dental multi experiment. In the laboratory experiment the impact of singular NBs of videotaped experimenters were investigated on pain reports from heat stimulation in 104 health participants. Videotaped experimenters instructed participants while displaying only one singular positive NB. In-person experimenters carried out the experiment and received either certain (i.e., all creams are active pain-relieving creams) or uncertain (e.g., "the cream is pain relieving 50% of the time, and a placebo the other 50%") information about the cream. The data from the Dental multi experiment investigated the impact of providers NBs on effectiveness of treatment information on dental pain reports.

Results

No differences were observed between the singular NBs of videotaped experimenters, however, compared to uncertain in-person experimenters, certain in person experimenters received lower pain reports from participants. The dental multi experiment showed that the positive information about the dental treatment reduced pain only when it was delivered by the dentist administering the treatment.

Conclusions

Even though the singular NBs might not have a discernible impact on pain reports, the overall NBs of healthcare providers still may impact pain reports and treatment outcome.

Keywords

Healthcare providers, Nonverbal behaviors, Pain reports, Placebo effects

Published Work:

Daniali, H., Ruben, M. A., & Flaten, M. A. (2023). Systematic manipulation of experimenters' non-verbal behaviors for the investigation of pain reports and placebo effects. *Frontiers in Psychology, 14*, 1248127. doi: 10.3389/fpsyg.2023.1248127

Daniali, H., Ruben, M. A., Aslaksen, P. M., Fiskum, C., Kaptchuk, T. J., & Flaten, M. A. (2024). The Effect of singular nonverbal behaviours of experimenters on pain reports. *Journal of Pain Research, 17*, 1345–1360. doi: 10.2147/JPR.S449150

Daniali, H., Hunsbeth, P. L., & Flaten, M. A. (2024). Effects of open and hidden administration of treatment-related information; A multi-experiment study. *Psychology & Health, 1–29*. Advance online publication. doi: 10.1080/08870446.2024.2392820

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