

The Nacebo Effect and its Application in Dentistry

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Nacebo has been aptly named evil twin of placebo. Placebo and nacebo research has evolved to an isolated and expanding interdisciplinary field rather a technical deliberation within clinical research in its own right. Placebo effect refers to the beneficial effects and nacebo effect is the adverse effects that occur in clinical or laboratory medical setup after management of any specific treatment or during any step along the way.¹

A suboptimal treatment may also end in failure if the patient has come up with the firm belief that the treatment will not help. This is called nacebo effect. For example, if a patient believes firmly that a medicine will not help or cause a certain side effect, psychologically the patient starts experiencing what they rooted for in the first place. The Nacebo phenomenon means that a patient is harmed because the patient believes that the drug or a cure will harm them rather than help them.²

A negative influence, due to nacebo effects, intrudes with the medical and dental treatment's outcome.³ For this, there should be advanced strategies for preventing or even overcoming their influence that would optimize treatment outcomes. Even if the treatment is carried out perfectly keeping all SOPs and steps of that concerned treatment in mind, the patient's negative expectations about the treatment may interfere psychologically with the outcome. The negative expectations should not be ignored keeping in mind that the nacebo effect has a powerful impact and is all in the head of patient.³

Nacebo effects are caused by, primarily by the patients thinking and mindset but also of how clinicians treat them. Procedural warnings, no matter how well-intended, may cause negative expectations. For quite some time now, experimenters are attempting to control for the placebo effect in clinical trials using 'placebo' controls in order to determine a 'true' or 'real' biological effect of an intervention. Not much attention is given to the patient's negative expectations from a dental treatment. Nonetheless, both nocebo and placebo play a role in the generation of "real" treatment effects and their associated "real" side effects.

The systematic assessment of adverse effects is the best

Methods for identifying placebo effects⁴. In addition to recording dropouts, careful analysis should be performed. An alternative approach is related to the informed consent format. Continuing to inquire about their prior experience with that particular treatment may yield a positive response. Personal information should include asking the patient if any of their relatives or friends have undergone the same treatment and, if so, how their experience was.⁵

No research has been conducted to date to evaluate the nacebo effect in dentistry. It is a need of the hour that future research should focus on better reflection on nocebo phenomena from various perspectives. Whereas the neuroscientific approach will provide information on the biology of nocebo effects, the methodological approach will assist us in designing better clinical trials, and the ethical perspective will allow us to create up to date ways of documenting informed consent.⁶

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