

Taal als medicijn

Over de placebo en nocebo
werking van woorden



Andrea Evers



De rol van de context in je behandeling...

Zorgverleners die een **warme, vriendelijke** en **geruststellende houding** aannemen, zijn effectiever dan degenen die het consult formeel houden

Influence of context effects on health outcomes: a systematic review

Z Di Blasi ¹, E Harkness, E Ernst, A Georgiou, J Kleijnen

Affiliations + expand

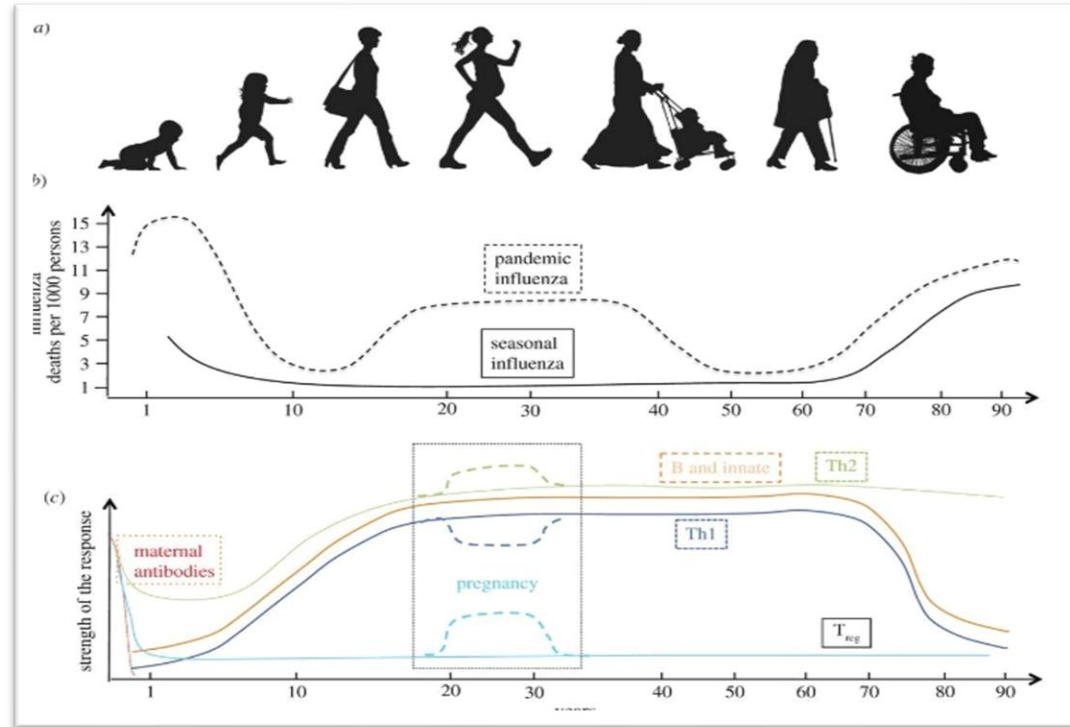
PMID: 11253970 DOI: [10.1016/s0140-6736\(00\)04169-6](https://doi.org/10.1016/s0140-6736(00)04169-6)



De rol van de context in je behandeling...

Trained
immune
system

Immunological
memory

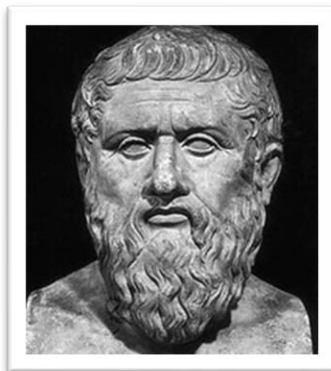




De rol van de context in je behandeling...

Placebo mechanismen =

hoe contextfactoren invloed hebben
op behandelresultaat



Plato 428 - 347 v. Chr.



Descartes 1596-1656

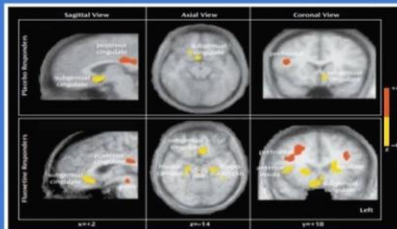


De rol van de context in je behandeling...

Placebo effecten even groot als
effecten antidepressiva...

Placebos as Effective Antidepressants

Administration of placebos can result in physiological and biochemical changes that are indistinguishable from a drug with an active ingredient. Placebos have been shown to have significant antidepressant effects when tested against active drugs. In addition, administration of a placebo results in activation of areas of the brain similar to that of the active selective serotonin reuptake inhibitor (SSRI) drug fluoxetine. Placebos therefore not only are effective antidepressants, but are also able to somehow activate similar parts of the brain as active drugs. But no one knows how.



Activation of glucose metabolism in response to placebo (top) and the SSRI fluoxetine (bottom). Activated areas are coloured.

See: Mayberg, H. S., Silva, J. A., Brannan, S. K., Tekell, J. L., Mahurin, R. K., McGinnis, S. and Jerabek, P. A. 2002. The functional neuroanatomy of the placebo effect. *American Journal of Psychiatry*. 159: 728-733





De rol van de context in je behandeling...

Placebo effecten even groot als
effecten pijnstillers...

nature International weekly journal of science

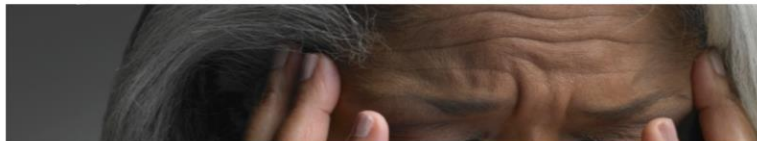
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News & Comment > News > 2018 > September > Article

NATURE | NEWS

Strong placebo response thwarts painkiller trials

Potential pain treatments are struggling to prove their worth over a rising placebo effect seen in US trials.





De rol van de context in je behandeling...

Placebo effecten even groot als
effecten operaties knieartrose...

he clinical effects of ho
eopathy placebo
ts? Comparative
r of
:bo-controlled trials
roduction

ethods

Literature search
and data sources

Study selection

Procedures

Graphical and
statistical analysis

Role of the funding

Are the clinical effects of homoeopathy placebo effects? Comparative study of placebo-controlled trials of homoeopathy and allopathy

Aijing Shang, Karin Hwiler-Mintener, Linda Nartey, Peter Jini, Stephan Dorig, Jonathan A C Szeme, Daniel Pewsner, Matthias Egger

Summary Background Homoeopathy is widely used, but specific effects of homoeopathic remedies seem implausible. The conduct and reporting of trials is a possible explanation for positive findings of trials of both homoeopathy and conventional medicine. We analysed trials of homoeopathy and conventional medicine and estimated effects in trials least likely to be affected by bias.

Methods Placebo-controlled trials of homoeopathy were identified by a comprehensive literature search covering 19 electronic databases, reference lists of relevant papers, and contacts with experts. Trials in conventional medicine matched to homoeopathy trials for disorder and type of outcome were randomly selected from the Cochrane Controlled Trials Register (issue 1, 2003). Data were extracted in duplicate and outcomes compared. Odds ratios below 1 indicated benefit. Trials described as double-blind, with adequate randomisation, were considered to be of higher methodological quality. Bias effects were examined in funnel plots and meta-regression analyses.

Findings 110 homoeopathy trials and 110 matched conventional-medicine trials were analysed. The median number of participants was 65 (range ten to 1573). 21 homoeopathy trials (19%) and nine (8%) conventional-medicine trials were of higher quality. In both groups, smaller trials and those of lower quality showed more beneficial effects than larger and higher-quality trials. When the analysis was restricted to large trials of higher quality, the odds ratio was 0.88 (95% CI 0.65-1.19) for homoeopathy (eight trials) and 0.58 (0.39-0.85) for conventional medicine (seven trials).

Lancet 2009; 386: 216-22
See Comment page 691
Department of Social and Preventive Medicine, University of Berne, Berne, Switzerland
(A. Shang MD, K. Hwiler-Mintener MD, L. Nartey MD, P. Jini MD, S. Dorig, D. Pewsner MD, Prof M. Egger MD); Medical Research Council Health Services Research Collaboration, Department of Social Medicine, University of Bristol, Bristol, UK (P. Jini); J.A.C. Szeme PhD, Prof M. Egger); Department of Pharmacology, University of Zurich, Zurich, Switzerland (S. Dorig); and

Annals of Internal Medicine

EDITORIAL

Relative Efficacy of Knee Osteoarthritis Treatments: Are All Placebos Created Equal?

Almost 40% of the U.S. population older than 45 years has some degree of knee osteoarthritis (OA), and the estimated lifetime risk for knee OA is 14% (1). This number is likely to rise even further. Obesity is skyrocketing, with an estimated 65 million more obese U.S. adults by 2030 (2). Greater participation in sports has led to high rates of anterior cruciate ligament rupture, and up to half of persons with this injury will develop symptomatic knee OA (3). Most important, the

to be \$2.5 billion by 2017, and the market for glucosamine is estimated to be \$12 billion by 2020 (8, 9). Why this dichotomy? Perhaps despite our best efforts, patients with knee OA who enroll in randomized controlled trials are simply not representative of real-world patients. Perhaps comparing interventions for OA pain with placebo—the gold standard for proving efficacy—fails to fully incorporate effects on central pain, which may be similar between stu-



Placebo effect

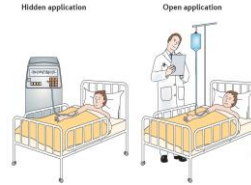
**is een positief
verwachtingseffect**

Placebo effect = gunstige verwachting tav behandeluitkomst

- Gunstige behandel-effecten, niet toegeschreven aan het behandelmechanisme
- Ontstaan door verwachtingen tov de gunstige effecten

Bijv. minder pijn alleen maar bij het zien van de pijnstiller

'Behandeling'

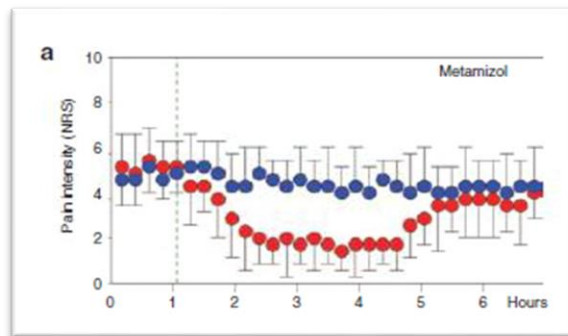
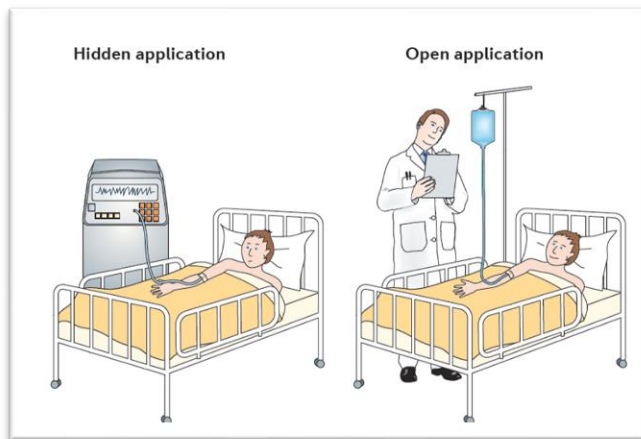


'Minder klachten'



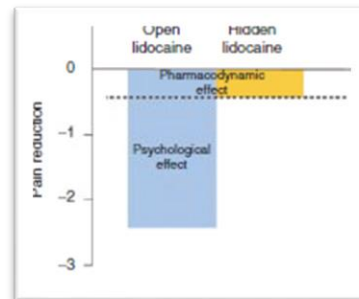


Placebo effect



Hidden Administration of Drugs

F Benedetti^{1,2}, E Carlino^{1,2} and A Pollo^{1,2}





Nocebo effect

Is een negatief
verwachtingseffect

Nocebo effect = ongunstige verwachting tav behandeluitkomst

- Ongunstige behandel effecten, niet toegeschreven aan het behandelmechanisme
- Ontstaan door verwachtingen tov de ongunstige effecten

Bijv. “ik reageer altijd overgevoelig op alle medicijnen”





Placebo and Nocebo effecten hebben een significante impact

Therapietrouw
medicatie



Rapportage van
bijwerkingen



Herstel na
operaties



Mortaliteit en
morbiditeit





Placebo effect

Het lerende lichaam

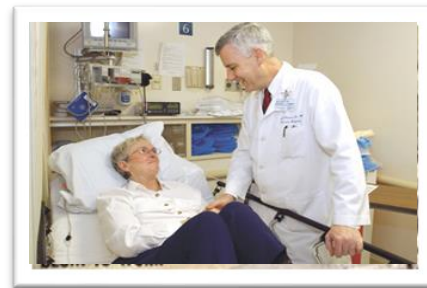


Placebo effect

Het lerende lichaam

Leerprincipes

- Verbale suggesties
 - Korte-termijn effecten, vooral in nocebo
- Conditionering
 - Meer stabiele, lange-termijn effecten
 - Effecten op het fysiologische responsysteem



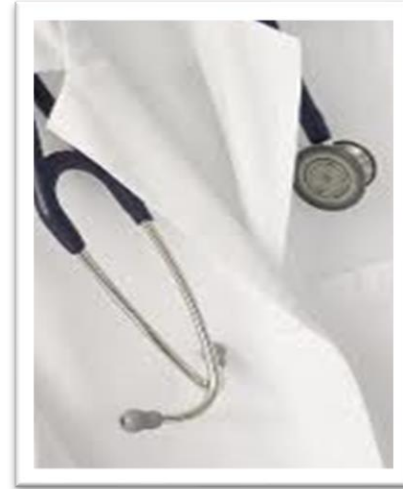


Rol van conditionering





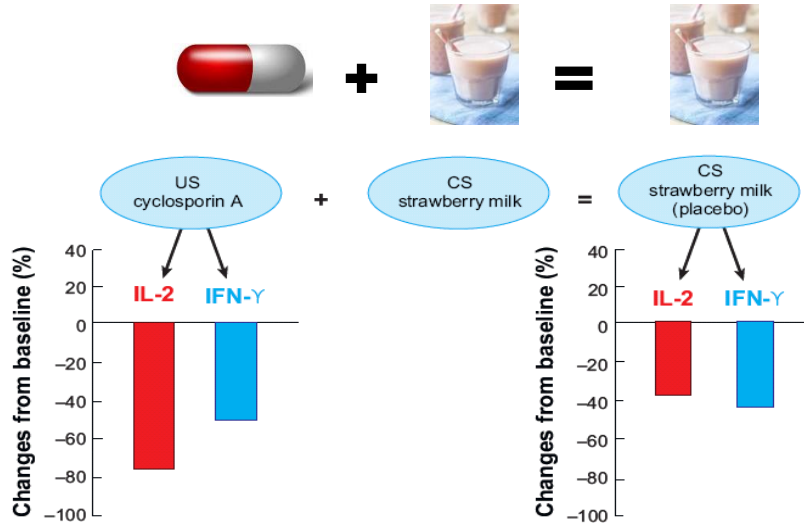
Rol van conditionering





Het lerende lichaam

Immuun conditionering

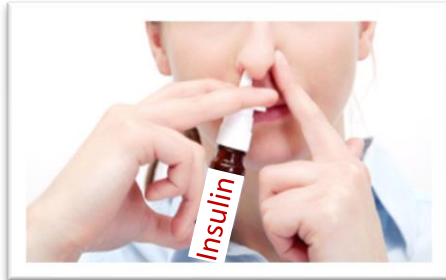




Het lerende lichaam

Insuline conditionering

Dag 1 (leerfase)



Dag 2 (testfase)

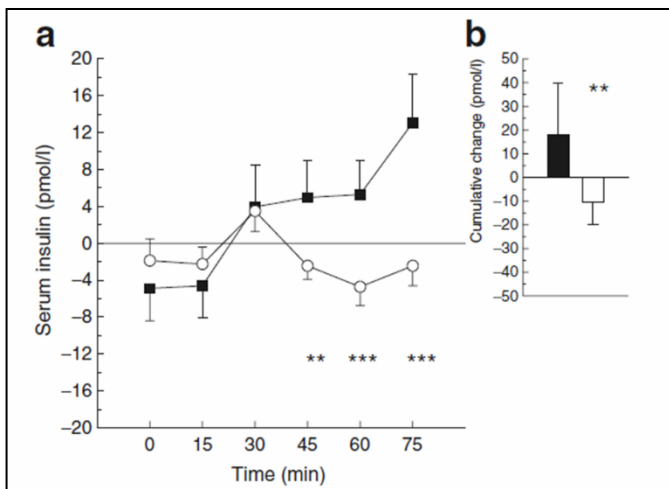




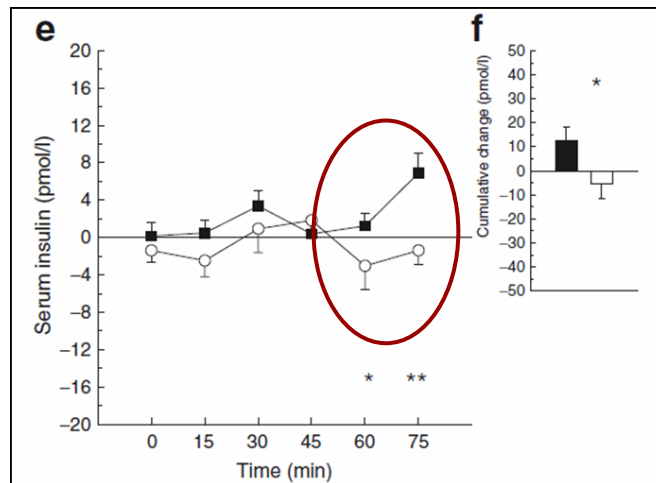
Het lerende lichaam

Insuline conditionering

Dag 1 (leerfase)



Dag 2 (testfase)



Insuline-conditionering groep

Placebo groep



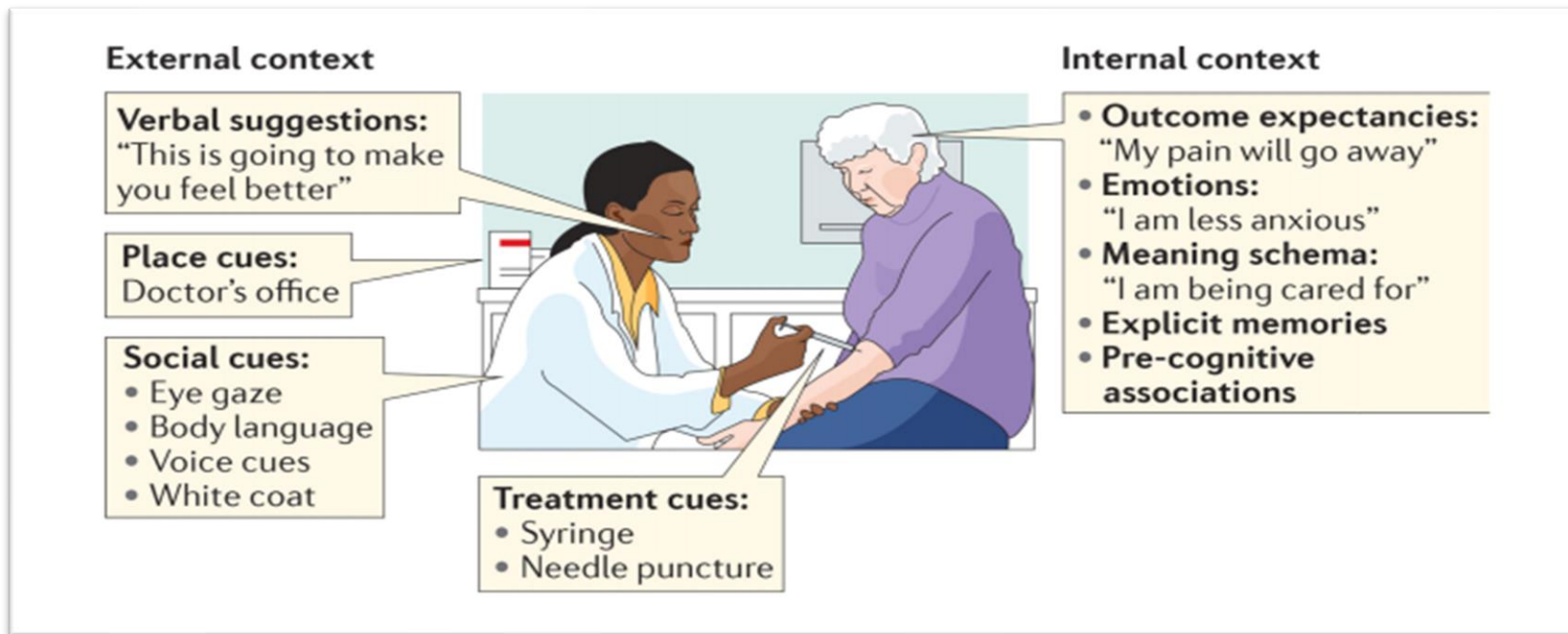
Klinische implicaties

De rol van de
behandelcontext



Klinische implicaties

Behandelcontext





De rol van de behandelcontext

Patiënt

Werken met verwachtingen



Professional

Arts-patiënt communicatie



Medicatie

Farmacotherapeutische conditionering





De rol van de behandelcontext

Patiënt

Werken met verwachtingen



Professional

Arts-patiënt communicatie



Medicatie

Farmacotherapeutische conditionering





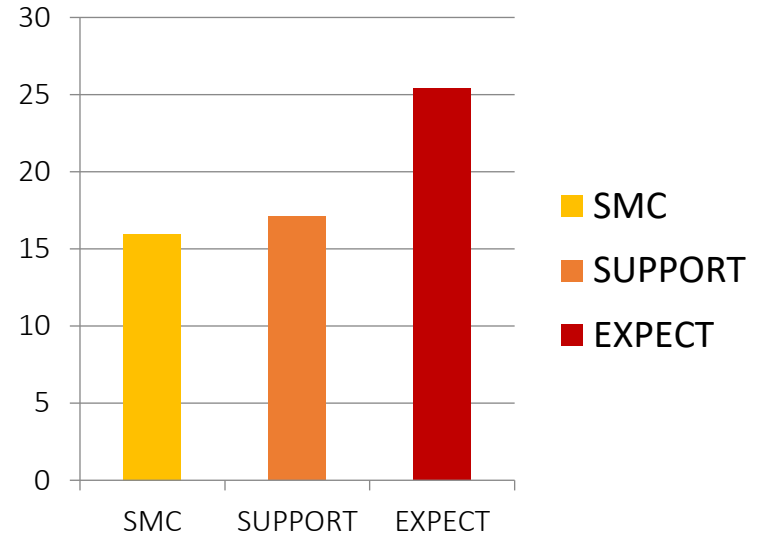
De rol van de behandelcontext

Optimaliseren verwachtingen

Gunstige effecten op herstel na
**focus op positieve lange-
termijn gevolgen** in patiënten
die een hartoperatie
ondergaan



Work resumption (hours / week)





De rol van de behandelcontext

Patiënt

Werken met verwachtingen



Professional

Arts-patiënt communicatie



Medicatie

Farmacotherapeutische conditionering





De rol van de behandelcontext

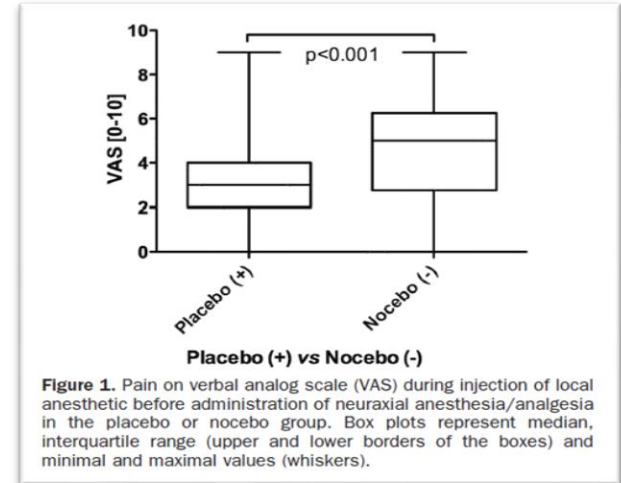
Patient-zorgverlener interacties

Groep 1 (nocebo):

”Je zult een **harde steek** voelen; dit is de **ergste pijn** gedurende de ingreep. “

Groep 2 (placebo):

”We zullen je een **lokale pijnstilller** geven die het gebied zal verdoven en die je **comfortabel** laat voelen gedurende de hele ingreep.”



Nocebo-Induced Hyperalgesia During Local Anesthetic Injection

Dirk Varelmann, MD, DESA,* Carlo Pancaro, MD,† Eric C. Cappiello, MD,* and William R. Camann, MD*
(Anesth Analg 2010;110:868–70)

De rol van de behandelcontext

Bijscholingen patient-zorgverlener interacties

E-Learning

1. Verwachtingen communiceren
2. Behandelrationale
3. Risico's en bijwerkingen
4. Therapeutische relatie

Scholing met accreditatie

Instituut voor Verantwoord Geneesmiddelgebruik



Virtual Reality training

Oefenen gesprekstechnieken placebo/nocebo effecten



De rol van de behandelcontext

Informatie over nocebo

1. **Informeer** patiënten over nocebo effecten (in je eigen woorden) bij een verhoogd risico op bijwerkingen
2. Vraag naar **voorkeur** om geïnformeerd te worden over risico's en bijwerkingen
3. Screening van patiënten met **hoog risico op nocebo effecten** met zorg op maat voor patiënten at risk



De rol van de behandelcontext

Gebruik maken van placebo

1. Leg de **werking van het placebo effect** (in je eigen woorden) en **behandelmechanismen** begrijpelijk uit
2. Benadruk de mogelijke **lange-termijn voordelen** van de behandeling
3. Creëer een **open samenwerkende sfeer** gebaseerd op **transparantie**: Placebo effecten werken op basis van vertrouwen

Center for Interdisciplinary Placebo Studies, University of Leiden

Tell Me the Truth and I Will Not Be Harmed: Informed Consents and Nocebo Effects

Luana Colloca[©]
University of Maryland, Baltimore

De rol van de behandelcontext

Patiënt

Werken aan verwachtingen



Professional

Arts-patiënt communicatie



Medicatie

Farmacotherapeutische conditionering



Farmacotherapeutische conditionering

Standaard dosering



Aangepaste dosering
conditionering schema



Gunstiger behandelbeloop en/of minder bijwerkingen
bij o.m. **depressie, ADHD, psoriasis, nierziekten**



Reguliere zorg:

Behandelingen effectiever
en doelgerichter inzetten

Patiënt:

Beter resultaat met minder bijwerkingen

Bijna 5 miljard Euro:

Jaarlijkse geneesmiddelen kosten
in Nederland