

Review Article

The Placebo-An Ameliorate Medicinal Power

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Abstract: Placebo is defined as any medication or procedure that produces an effect in patients resulting from its implicit or explicit intent and not from its specific physical or chemical properties. Positive placebo effects may include symptom reduction or improvements in physiological parameters and are believed to be due to mind body or interpersonal factors. In recent years the placebo effect has returned to the limelight. The reasons for this are complex, but they probably include the increased use of neuro imaging, the clinical improvement noted in the placebo groups in trails of anti depressants, and the growing public and research interest in alternative medicine. Placebos are paradoxical, able to be simultaneously the most tested intervention in randomised control trails and yet the least understood of all therapies. The most quoted treatment in medical science and yet notoriously elusive to definition. The goal of this paper is to demonstrate the placebo effects are relevant and can be used as an effective part of many treatments by using communication targeting placebo effect mechanisms.

Keywords: Placebo, growing public, alternative medicine, paradoxical

INTRODUCTION

A placebo is an inert form of treatment that has a biological effect on the body. The placebo effect has been shown to improve symptoms in a way similar to active medication. Placebos can be used as therapeutic procedures to treat individual patients but are mainly used today as controls in clinical research and trials[1]. The placebo itself, being chemically inert, does not have an intrinsic value to a patient. It is the extrinsic circumstances surrounding the placebo, such as trust and care between physicians and their patients that give it a social and physical value resulting in the placebo effect. Thus, placebos hold the ability to transform our biomedical culture from focusing solely on developing impersonal technology and miracle drugs to also developing stronger doctor-patient relationships and a greater emphasis on the individual. These mechanisms are not just subjective, but also biological. Recent neuroimaging technology has shown that the brain releases neurotransmitters, which carry out the healing process, even when a patient has received a placebo. This shows that a patient's knowledge, or presumed knowledge, of a procedure plays a large role in the efficacy of the treatment.

Modern technology has provided new opportunities for studying the placebo effect, which may further the acceptance of placebo use in society. A placebo is no longer restricted to the form of a simple pill or injection. Now, it may even be seen in the form

of surgery. Knee-surgeon Bruce Moseley, who serves as the team doctor of the Houston Rockets, has used placebo arthroscopic knee surgery with great success [2]. Placebos often take the form of sugar pills, saline injections, miniscule doses of drugs or sham procedures designed to be void of any known therapeutic value. In contrast the placebo effect is a perceptible, measurable consequence of receiving a placebo that may have a healing or harmful effect [3].

MECHANISMS BEHIND PLACEBO EFFECTS

The Mind/ body gap

It has different mechanisms which may be representations of the same process, focussing on different aspects, particularly in relation to levels of conscious awareness. For a particular person, place and time, the presence of conscious awareness may mean that it is expectation that it is primarily in operation; for another situation it may be conditioning.

Some would argue that there are instances where conditioning alone explains purely physiological effects (e.g. conditioned immune responses in mice) and psychological processes alone explain psychological effects (e.g. placebos reduce negative depressive thoughts by instilling hopeful positive cognitions).

Anxiety reduction

Support comes from studies showing that saline placebo reduced affective but not sensory ratings of experimental pain. Furthermore recent neuro imaging research suggests that placebo analgesia may operate via anxiety relief, which is itself influenced by underlying cognitions.

Expectancies

A medical treatment or procedure can produce a placebo effect because the recipient of the treatment expects it too. Expectancies help to prepare body and mind for what is going to come. Expectancies may be seen as either the patient's beliefs about the effects of the treatment or the patient's beliefs about their abilities to carry out or cope with the disease and its treatment. The most studied mechanism in placebo research is the impact of patients' positive or negative expectancies [4]. Much progress in knowledge on how expectancies can lead to placebo effects is made thanks to the application of the neuro cognitive sciences in pain research and through the use of modern imaging techniques, such as f-MRI and PET-scans. Expectancy related placebo effects are larger when patients have a stronger desire to reach a positive goal.

Transference

Transference is the unconscious projection of feelings, attitudes and wishes, initially formed towards a significant figure in early development, onto another person, such as practitioner, in the individual's current life.

Meaning effects

As cognitive process may operate in the unconscious mind and perhaps also bear influence of the placebo effect, some researchers prefer a more inclusive terminology that encapsulates both conscious and unconscious processes. Many of the studies investigating factors that influence the placebo effect, such as drug name and colour, arguably demonstrate it as a meaning effect [5]. Expectations regarding qualities such as names and colours are rarely explicitly expressed and such unconscious process appears more encapsulated by the term 'meaning effect' than 'expectation effect'.

FACTORS THAT CAN CREATE FALSE IMPRESSIONS OF PLACEBO EFFECTS

Spontaneous improvement

Spontaneous improvement of a disease does not occur as a result of a placebo administration; it is not an effect of a placebo. In a placebo-controlled drug trial on acute common cold, described as mild and of short duration, 35% of the patients receiving placebos felt better within 6 days (2 days after the onset of placebo administration)

Fluctuation symptoms

In chronic diseases fluctuation of symptoms should be taken into account. Patients feel better one

day and worse the next. Therefore, looking at a number of chronically ill patients, one will simply always see some patients' improving. Because of this, it is a mistake to forget to mention the rate of deterioration, and only report the rate of improvement and call the latter a placebo 'effect'.

Neurotic or Psychotic Misjudgement

The reliability of a patient's report is often particularly difficult to access in neurotic or psychotic disturbances [6]. However, one should not forget that a common feature in psychosis or neurosis is disturbed interpretation of reality. Therefore one clearly has to differentiate between a psychotic or neurotic misjudgement on the one hand and a correct observation of a therapeutic effect on the other hand. Neurotic or psychotic misjudgements can hardly give any valid evidence for the existence of placebo effects [7].

CONCLUSION

Placebo is the best interest of multiple parties. Patients will benefit because placebo treatment will decrease the cost of medical care and increase the personal component of the doctor-patient relationship. Doctors will benefit through an increase in patient trust and an ability to conserve resources.

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