

Slide 27
Placebo effect in Clinical Practice
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❖ **Definitions**

- Latin for: I shall please
- An inactive substance/preparation given to satisfy the points symbolic need for drug therapy and used in controlled studies to determine the efficacy of a medicine, also a procedure with no intrinsic therapeutic value
- A placebo is any therapeutic procedure which given deliberately to have an effect on a points symptoms, but objectively without specific activity for the condition it is given for
- The placebo must be differentiated from the placebo effect, which may or may not occur and which may be favorable or unfavorable.
- The placebo effect is defined as the changes produced by placebo.
- The placebo is also used to describe an adequate control in research
- A placebo is something which is intended to act through psychological mechanism, it is an aid to therapeutic suggestions, but the effect which it produces, may be either psychological or physical
- Observer – oriented definitions, on the other hand, tend to be broader: “placebo” refers to that aspect of any treatment, which is effective through symbolic rather than instrumental means. In this view, the placebo is “an active ingredient in practically every prescription” indeed, any thing offered with therapeutic intent may be a placebo
- Placebo effect may also be viewed as a subset of a larger group of mind-brain-body effects such as the psycho- immunological effects of religious beliefs, cultural and social systems

❖ **The negative connotations of Placebo**

- The placebo effect is a neglected and berated asset of patient care
- The more the doctor viewed medical practice as a scientific exercise, the more disparaging he was about placebo therapy
- Doctors’ definition tends to suggest that the placebo is an inert preparation, or form of therapy, which has little or no specific medical effect, but is given “to humor rather than cure”.
- Definition of this type always imply that the practitioner knowingly exploits such technique to gratify the patient

- **HOWEVER!** Even though on an official basis, the medical community disdains the use of placebo and is trying to get it out of the way so they can prove the efficacy of the therapeutic agents they use, placebos are there front and center

❖ **Doctors attitude toward placebo (Jean Comaroff)**

- Dr. A " I would say that I prescribe it in 95%of my consultations. That sound high, it is high, not all these of the prescriptions are warranted in medical terms. When people go to doctors they expect a prescription, even if given Aspirin it would have therapeutic value .You can't always call this placebo, I would say the placebo effect was 50%, it is very important that every body get a prescription, most of the thing I give have therapeutic effect of some kind. But for some of them it's the placebo effect rather than the therapeutic effect that is more important

❖ **Others are beginning to recognize that there is some thing to it**

- Too many studies have found objective health improvements from placebo to support the notion that the placebo effect is not entirely psychological

❖ **How big is placebo effect**

- In 15 studies involving 1082 pts, placebos were found to have an average significant effectiveness of about 35%, a degree not widely recognized.
- About 75% of the apparent efficacy of antidepressants may be attributable to placebo effect.
- Wolf and Pinsky (1954) found that 30% of 31 anxiety patients improved on placebo (lactose)
- In 1946 DuBois stated, " Although scarcely mentioned in the medical literature, placebo is more used than any other class of drugs.
- Many effective drugs have power only a little greater than that of placebo.
- Many of the drugs have been extolled on the basis of clinical impression when the only power they have is the placebo effect.
- In recent years in a lot of studies done by drug companies sugar pills have done as well as or better than antidepressant
- A study of 500 patients undergoing dental procedures, those who were given placebo injection and reassured that it would relieve their pain had the least discomfort – not only less than the patients who got

placebo and were told nothing but also less than the patients who got a real anesthetic without any reassuring comment that it would work

- The world average of for placebo effect in peptic ulcer studies is about 36%, results in USA is close to this, in Germany about 59% but 22% in Denmark and the Netherlands, and in Brazil only 7%

❖ What part of an active drug effect is real

- The placebo effect of active drug is masked by their active effects. The power attributed to Morphine is then presumably a placebo effect plus its drug effect .The total drug effect is equal to its active effect plus its placebo effect
- Of a group of severe postoperative pain 75% are satisfactorily relieved by large doses of Morphine, But **35% are relieved by placebo.**
- What counts more in reality Is what is going in the brain/mind not the pharmacological effect

❖ It may be hard to tell how much of the effect is “real”

- In their studies in the university of British Colombia, researchers found that comparable levels of Dopamine are released in the brain after an injection of either a drug or a placebo IF the patient expect to get the drug
- In one blind study, researchers found that patients with Parkinson’s disease who were given placebo released Dopamine in their brain, just like those who were give active drug

❖ Patterns of discovery

- Three phases:
 - 1 – It’s new. It’ll cure every thing. And of course there are no side- effects.
 - 2 – Oooops! Maybe we were wrong. The honeymoon is over.
 - 3 – Is it actually better than any thing we have? Is it actually better than placebo?
- Honigfeld show that doctors communicate a subtle enthusiasm to patients in clinical trials and clinical situation
- Many temporarily successful new surgical procedure owe their success to placebo effect alone
- In a recent study in arthroscopic knee surgery, matched against sham surgery, 2 yrs. later 35% of patients said they felt less pain, were better able to get around, whether they were operated upon or not

❖ **Changes in Medicine**

- Medical science has improved so much and so fast in the last 40 yrs. that it is easy, perhaps, for Drs to neglect the part of medicine that is not a science at all.
- The ready and lavish display of sympathy, the laying on of hands, the projection of a slightly mystical authority, are now more often the province of alternative medical practitioners

❖ **IMPORTANT factors in placebo**

- The placebo effect seems to be derived from a combination of factors involving the pt. the Dr and the relationship between the two. A meaningful Dr-Pt interaction is extremely important, allowing the transfer of the patients concerns to an acknowledged scientist and healer, the physician.
- The physician's belief in the intrinsic worth of his medicine has always rivaled that of the patient.
- The psychological state of the patient, patient's expectation and conviction all affect his response to treatment whether active or placebo
- Physicians who have faith in the efficacy of their treatments allow that enthusiasm to be communicated, have strong expectations, and are self-confident and attentive are the most successful in producing positive placebo effect.
- The length of time spent with the pt. and the demeanor of the physician are pertinent factors

PAST PAPERS:

1. Which of the following statements is not true about placebo ?

- A- It is Latin for (I shall please) .
- B- Any Therapeutic procedure which is given without specific Activity for the condition being treated with .
- C- Placebo and placebo effect are the same .*
- D- Placebo have side-effects .
- E- Placebo effect accounts for about 30% of active treatments .

2. All affect the placebo effect **except:** color and size of the tablet OR patient age

3. True about placebo – mostly has 35% effectiveness

4. Wrong about placebo effect – related to patient education

5 –All the following statements are true about placebo EXCEPT?

- A – Research indicates that placebo effect is about 30% .
- B – Placebo effect is not entirely psychological .
- C – placebo is commonly used by doctors in every day work .
- D – Expectation is important factor in the placebo effect .
- E – In tooth pain Morphine and placebo have the same efficacy.*

6. Which of the following factors play a role in the placebo effect

- A – The mode of symptoms initiation .
- B – The type of underlying pathology of symptoms.
- C - The age of the patient in the time of consultation .
- D – Neuro-chemical brain substances .*
- E – Which body organ is involved

7. The following factors play the main role in the placebo effect except one:

- A- The severity of the symptoms .
- B- Expectation of the patient .
- C- The birth order of the patient .*
- D- Physicians faith in the treatments they prescribe .
- E- The size and color of medications .