



The weird power of the Placebo effect, is unexplained to the patient.

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ABSTRACT:

Placebo is a substance containing no medication and is given to reinforce a patient's expectation to get well. Medical and nursing researchers have proved that the placebo method is very beneficial for the patients who underwent surgery for postoperative pain relief. It is especially effective in relieving pain, anxiety, insomnia and depression. Based on review of medical and nursing studies, placebo effect improves or reduces symptoms in a widely divergent percentage of individual suffering from numerous medical conditions. Substance used as placebo includes lactose, some vitamins, minerals and distilled water injections. This method helps to overcome from that psychological factor. From using this technique the overdose of medicine can be prevented and harm can be reduced and natural pain defeating capacity can be induced.

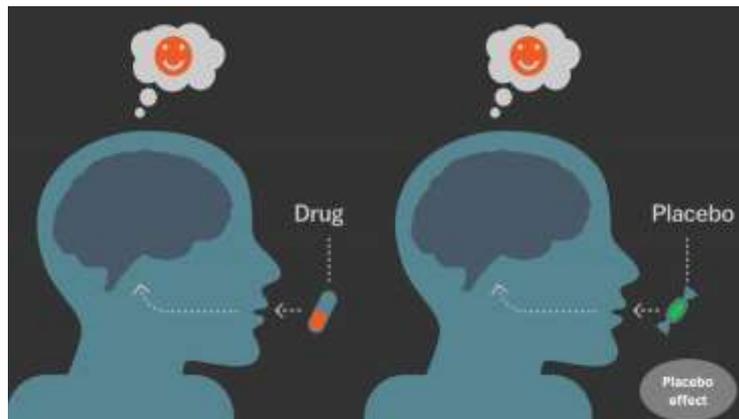
Key words: Placebo, Effect, Substance, Medication, Reduce, Relief, Psychological Factor

INTRODUCTION

Placebo is the inert dosage form with no specific biological activity but only appears as the actual preparation in appearance. These are also known as the "Dummy Medications" to relieve the symptoms after surgery. The doctor patient relationship and the nurse patient relationship influence the response to a drug rather than acting on patient's psychology. The patient's belief and confidence on the doctor and nurse may itself be sufficient to relieve a pain and suffering particularly the psychosomatic disorders. This can be substantiated by the fact that a large number of patients respond to placebo.

In fact, all forms of treatment including physiotherapy and surgery have minimal level of placebo effect. The efficiency of placebo method is influenced by the personality of the treating doctor, nurse & patient. The ability of the nurse to instil or develop confidence in the patient itself carries enough weightage and the skill should be developed right from Student days as a part of medical and nursing education. According to patient's psychology injections are more comfortable than the oral medicines. It

works by psychodynamic rather than the pharmacodynamics that means; it produces equal response as how the actual drug produces. Some individuals are more suggestible and easily respond to placebo method. Those are called as Placebo Responders or Placebo Reactors.



HISTORY

Henry Beecher discovered the placebo effect in WORLD WAR II, after running out of pain killer medication Morphine, it was replaced by Normal Saline or Lactose. Placebo earlier was known as "Humble Humbug".

Placebo is a latin word, meaning- "I shall be pleasing" or "I will please".

- In 1801, Jhon Haygarth reported the results of what may have been the first Placebo control trial.
- In 1930, Evans, Hoyle, Gold and their Colleagues actually used "the word placebo" for the "inert treatment" given to controls in an experimental situation.
- 15 studies, carried out by Beecher (1955) involving 1082 patients, the average placebo response rate determined was 35.2%.

DEFINITIONS

- 1) **PLACEBO:** A Placebo is a substance or a treatment which don't have any active effect on the body.
- 2) **PLACEBO EFFECT:** An inactive substance or other interventions that looks same, and is given in the similar way as an active drug or treatment, being practiced and by which the patient feels the therapeutic effect.

INCIDENCE

The response rate is about 87% in the patients after surgery. It is 70% to 80% effective, when the patients don't know that they are receiving the placebos. Angina pectoris, Myocardial Infraction, Major surgeries includes ortho and neuro etc, the use of vitamin B, distilled water injection, lactose and normal saline in these patients the effect of placebo is 80%.

Back Surgery: Suggested by Spang fort's review of long term outcomes of "2504 discectomies" for lumbar

disc disease

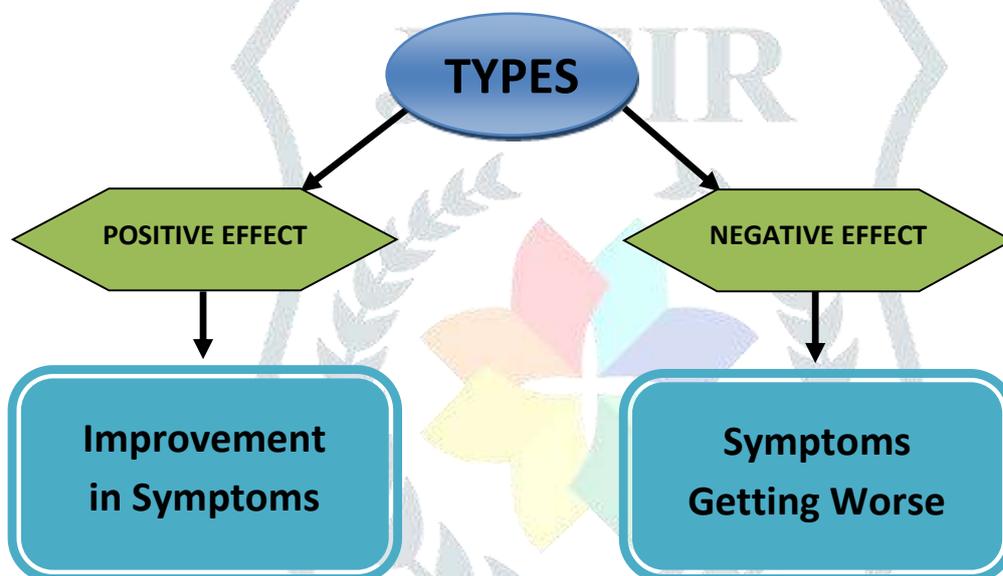


Complete relief of back pain was noted in 43% of patients who had undergone surgery.

PLACEBO EFFECT:

The following are the means of results which are obtained by the use of placebo;

- a) The psychological, physiological or psycho-physiological effect of any medication or procedure which in turn operates through a psychological mechanism.
- b) It changes a patient's illness attribute or contribute to the symbolic import of a treatment rather than a specific pharmacological or physiological property.



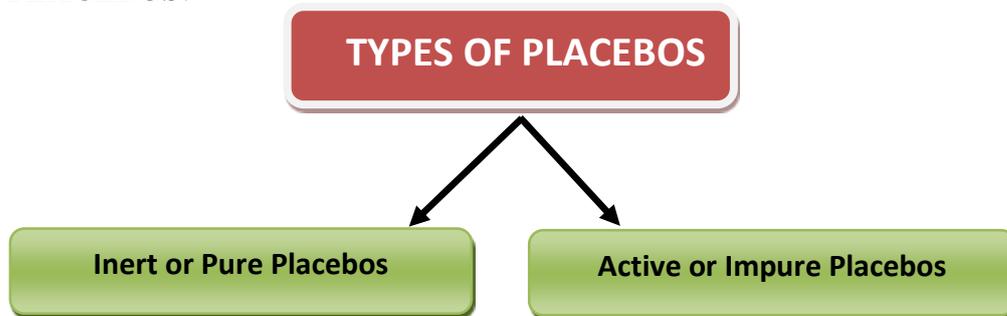
c) Hawthorne Effect

In 1930s, it states that he or she being known or studied about this previously would not have practiced & carried out in these patients.

d) Nocebo

Latin word – Nocero; opposite of placebo.

Here the negative psychodynamic effect arising in the patient leads to loss of faith in Medication or even in the Nurse and the Physician.

TYPES OF PLACEBOS:

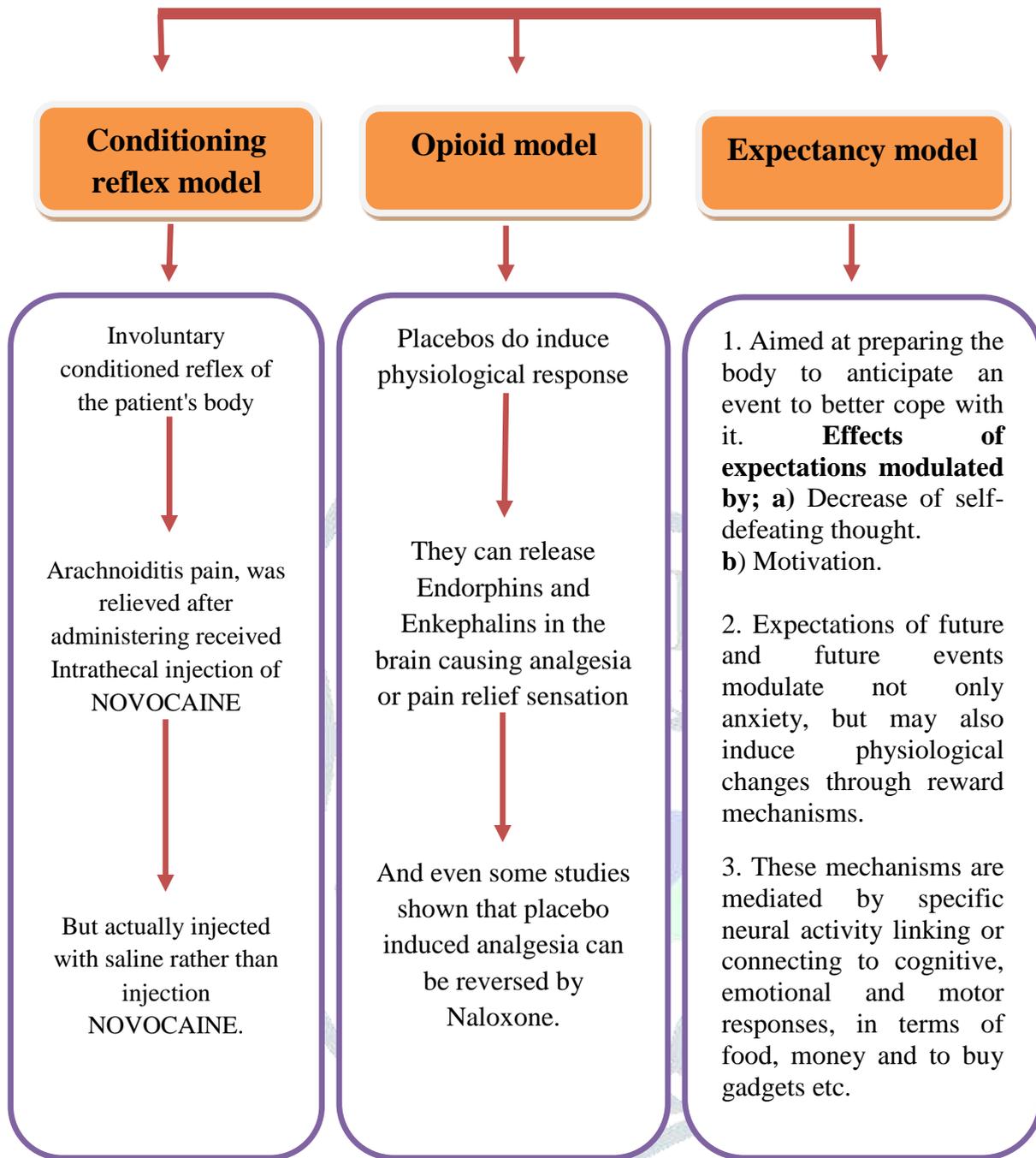
- **Inert or Pure Placebos:** Substances that have no conceivable pharmacologic effect on the patient.
Example: Dummy pills or capsules containing lactose, sugar solution or chalk. Other examples are; Inert pills, sham surgeries, Inactive medical devices and Injection of distilled water.



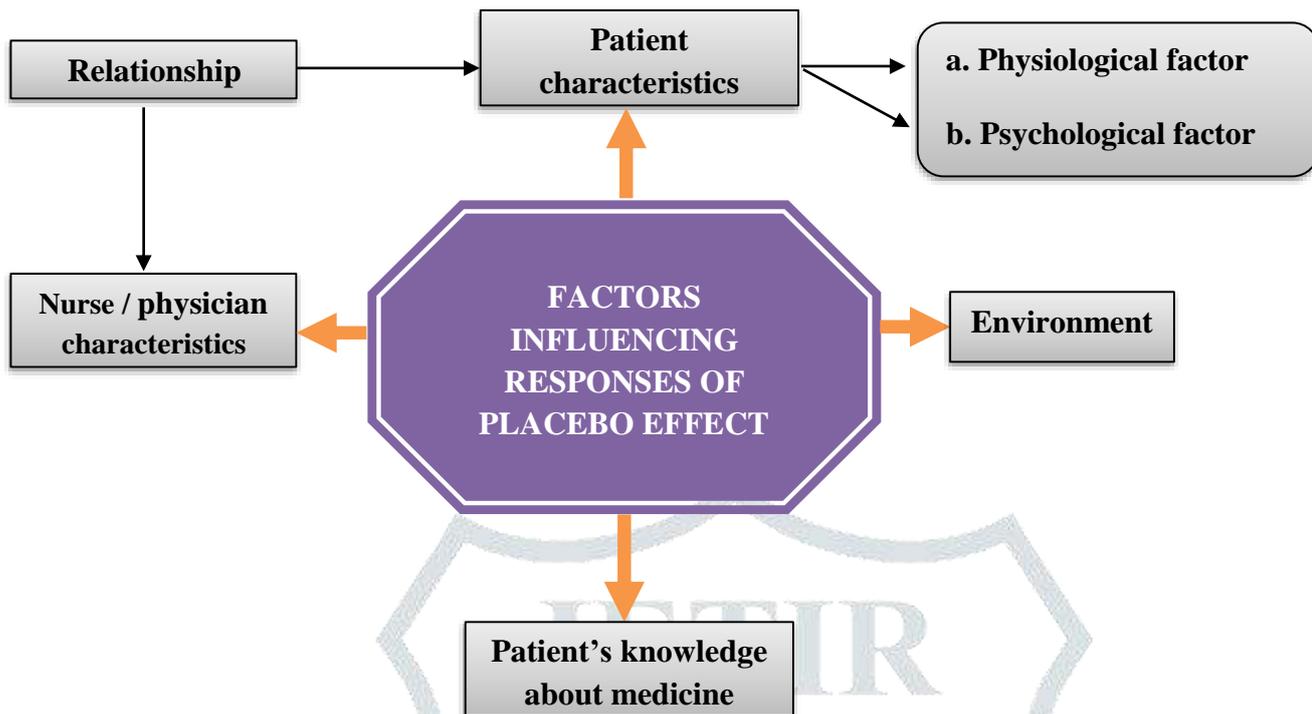
- **Active or Impure Placebos:** Having good pharmacological effect, it is not necessary for the patient but still given for the patient's comfort.
Example: Vitamin B12 or iron in the absence of anaemia; Antibiotics in viral infection this method can be used.



MECHANISM OF ACTION



FACTORS INFLUENCING THE RESPONSES OF PLACEBO EFFECT



APPLICATION IN CLINICAL TRIALS

- The placebo – controlled trial "the gold standard for testing the efficacy of new treatments".
- Best evidence for new treatment comes from Randomised Placebo – Controlled (RCT) double blind studies.
- Researcher compares the result of experimental treatment with the Placebo.
- A placebo may induce sleep on the initial days, but not subsequently.

PLACEBO IS USED IN CLINICAL DRUG TRIALS FOR FOLLOWING REASON:

- Blind administration of two drugs that cannot be made in distinguishable color (double dummy technique).
- Compare effects with those of active drug.
- Comparison of active drugs validated by a placebo.
- Toxicity can be prevented with continuous administration of opioids.
- To know the withdrawal period.
- Placebo responders to be excluded.

ETHICS

- ETHICAL:** Use of placebos is essential to protect the society from the harm that could result from the wide spread use of non-active or inactive medical treatment.
- UNETHICAL:** Alternative study designs would produce similar results with less individual research participants. Placebo treatment is not that the patient is receiving an ineffective drug or medicine.

PROBLEMS ASSOCIATED WITH PLACEBOS

- Imperfect likeness.
- Impure placebos.
- Selecting non-reactive Placebos.
- Over estimation of placebos effects.

CONCLUSION

Placebo is an inert substance which is given in the garb of a medicine. It works by psychodynamic rather than pharmacodynamic and often produces responses equivalent to the active drug. In the placebo effect 2 + 2 doesn't be equal to 4. Sometimes the patient makes themselves feel better, or in the case of Nocebo effect (opposite to Placebo) probably have similar psychological and physiological mechanism. The placebo effect has been shown to be beneficial in many different diseases and different situations. Placebos are very much extraordinary drugs (Dummy drugs). They seem to have almost minimal effect on the patient. They have no serious side effects and cannot be given overdose. The placebo effect can be known and studied for management of several symptoms that a patient can feel comfort.

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