NLP and Health

The Placebo Effect

Medicine uses the enormous power of beliefs by another name. Doctors prescribe beliefs by the name of placebos. A placebo is often narrowly defined as an inert substance that has its effect by virtue of the patients' expectations, having no direct effect on the condition for which is prescribed. But as we shall see, it is hard to separate direct and indirect effects, and a placebo can be a substance, a procedure, or a form of words. All that is necessary is that it mobilises the patient's beliefs. This chapter is about the placebo effect - how beliefs, expectations and trust can heal illness and influence our health and immune system.

The Most Tested Drug

Which drug has been subject to the greatest number of rigorous clinical tests? The placebo. It is also the most used drug in the history of medicine. Placebos are so well researched because all drugs are subject to a double blind test to gauge their potency and side effects. A group of patients is given either the drug under test, or an inert substance - the placebo. 'Placebo' is often used synonymously with 'sugar pill'. The results are monitored. The test is called double blind because neither the testers nor the patients know who receives the drug and who receives the placebo. The patients must not know because what they expect will affect the results. The researchers must not know because their own beliefs and expectations influence the patients, who are apt to pick up clues from voice tone and body language. Beliefs are infectious. The placebo is blank prescription on which we write our beliefs and expectations, a blank cheque for health. It may be an inert pill. It may be surgery. It may be a potent drug which has no direct effect on the illness for which it is prescribed. The placebo effect translates our beliefs about our treatment directly and sometimes surprisingly into material reality. It shows our natural healing powers at work. It directly contradicts the idea that illness is only in the body.

The Next Penicillin?

Placebos are treated as an embarrassing curiosity on the fringes of medicine, but really they belong at the centre. They are in an analogous position to penicillin. Penicillin was the first antibiotic, and one of the most useful drugs ever discovered. Researchers trying to cultivate bacteria were frustrated because the penicillin mould would also grow and contaminate the experiments. It was a nuisance because it killed the bacterial cultures. When researchers stopped trying to get rid of it and actually noticed what it was doing, they extracted the phenomenal drug from the mould, and arguably transformed the practice of medicine. The mould was more important than the experiments it ruined.

The word 'placebo' is Latin for 'I will please' and may have originated from the idea that the patient became well to please the doctor, or the doctor gave something just to please

the patient. In either case the treatment had no 'medical' value. Embedded in this definition is the belief that treatments can be divided into those that work by virtue of their biological efficiency and those that do not, and that healing and curing is brought about by treatments that have proven physiological effects on the patient's illness. This is precisely the belief that placebos call into question. Here are treatments that can and do cure every sort of illness in a high percentage of cases, sometimes miraculously, yet according to the traditional medical model they should have no effect. What is going on?

The Placebo - The most consistently effective pain reliever.
There have been many double blind studies of the efficiency of placebos in pain relief. On average, placebos are 55% as effective in pain relief as morphine. In other words the reduction in pain with the placebo is 55% of the reduction in pain achieved by morphine. (Evans F., Expectancy, Therapeutic Instructions and the Placebos Response in: White L., Tursky B., and Schwartz G., (Eds) Placebo, Theory, Research and Mechanism Guildford Press 215-228 (1985))

In a typical clinical situation 25% of patients will not get relief from any medication, even morphine. About 40% of patients will get considerable relief from morphine but little benefit from a placebo. About 35% of all cases will receive as much relief from a placebo as from morphine. (Evans F. , The Placebo Response in Pain Control Psychopharmacology Bulletin 17 (2) 72-79 (1981)) Placebos are also 59% as efficient in relieving depressions as the tricyclic psychotrophic drugs.(Morris J., and Beck A., The Efficacy of Antidepressant Drugs Archives of General Psychiatry 3 0, 667-674 (1974))

A Mouse in May Keeps the Doctor Away
Medicine's success has relied on the placebo effect. The history of medicine is littered with treatments that could have no direct effect on the illness for which they were prescribed, except to make it worse. A Roman prescription for a healthy life was to eat a live mouse at the beginning of each month, (presumably on the grounds that nothing worse was likely to happen for the rest of the month). In Europe during the nineteenth century bleeding and purging were deemed essential. When these became discredited, doctors began to prescribe large quantities of opiates, alcohol and then cocaine. These are active placebos - powerful drugs that have profound physiological effects, but not on the illness for which they were prescribed. At least a sugar pill does you no harm.

What of modern prescriptions? Doctors prescribe a wide variety of active placebos. Antibiotics are prescribed for the common cold, despite the fact they have no effect at all on viral infections. Over-prescription of antibiotics encourages bacteria to develop resistant strains more quickly. Tonics and cough syrups have no direct effect on the illness they are prescribed for. Tranquillisers are the most widely prescribed modern placebo, too widely prescribed maybe. They can also be addictive. Tranquillisers are direct heirs to the opiates that were prescribed in the nineteenth century. A cynic would conclude that millions of pounds are wasted on such drugs because they are much more expensive that sugar pills.

Some Myths About Placebos

- Only drugs can be placebos.

No. Anything that mobilises a person's expectations and beliefs about health can act as a placebo, including surgery.

- Placebos only work on psychological symptoms.

No. They work on a wide variety of illnesses. For example, they have effects on arthritis, asthma, bleeding and obesity. They have a measurable physiological effect on the body. When placebos relieve pain, doctors sometimes conclude that the pain was imaginary, but there is no such thing as imaginary pain.

- A placebo is an inert compound.

No. People have expectations about active drugs that may enhance or work against the drug's natural effects.

- The placebo effect is evoked by deceiving people that they are receiving something that works when they are not.

No. Any treatment that enhances a person's expectations and sense of control can give the placebo response.

- The placebo response is very weak.

No. The effect stimulates endorphins. These natural painkillers are a hundred times more powerful than morphine. Placebos can neutralise the effect of many powerful drugs.

- The placebo effect is always beneficial.

Unfortunately, no. The placebo effect follows expectation and belief. When patients believe they are receiving a drug with unpleasant side effects, they may get these side effects with the placebo. For example, in a study of the drug Mephenesin, a placebo produced almost identical side effects: sleeplessness, nausea and dizziness.(Wolf S., The Pharmacology of Placebos Pharmacological Reviews 11, 689-714 (1959))

- Only hysterical, gullible or sensitive people respond to placebos.

There is no evidence that any personality type responds more strongly than another. Placebos work with every personality type.

- Placebos necessarily involve deception.

No. There can be a placebo effect even when the patient knows they are receiving a sugar pill. In a study at John Hopkins Medical school, Fifteen patients who were attending a psychiatric outpatient clinic for anxiety were given sugar pills for one week. They were told openly that these were sugar pills and that they had been helpful to many people. Fourteen of the fifteen patients reported their anxiety was significantly reduced. Nine attributed the benefits directly to the pills. Six were convinced the pills contained an active ingredient. Three reported side effects of blurring vision and a dry mouth. (Park L, and Covi L, Nonblind Placebo Trial Archives of General Psychiatry 12 336-345 (1965))

Placebo Surgery

Any form of treatment can evoke the placebo effect. In the nineteen fifties a common surgical treatment of angina was to tie a ligature around the internal mammary artery that runs near the heart. Doctors argued that tying the artery would divert blood to the heart, and the increased blood flow would help to relieve the pain of angina. A controlled study was carried to see how much of the improvement might be due to a placebo effect. (Cobb L., Thomas G., Dillard D., Merindino K., and Bruce R., An Evaluation of Internal-Mammary Artery Ligation by a Double Bind Technique New England Journal of Medicine 260, 1115-1118 (1959)) The patients were told they were part of a study but were not told that some of them would not be receiving the operation. A number of sealed envelopes were prepared with instructions either to tie the artery, or to do nothing. In the middle of each surgical operation, the surgeon would choose an envelope at random and carry out the instructions - a strange procedure for the surgeon. Seventeen patients took part in the study. Five of the eight patients who had the real operation reported that they felt very much better. And so did five of the nine patients who had the bogus operation.

A group of sceptics repeated the experiment. Neither patient nor doctor who assessed them knew who had the real operation. There was a marked improvement in ten of the thirteen who had the real operation and in all five who had the bogus operation. (Diamond E., Kittle C., and Crockett J., Comparison of Internal Mammary Artery Ligation and Sham Operation for Angina Pectoris American Journal of Cardiology 5 : 484-86 (1960)) The operation was formally discredited as a treatment for angina and is no longer performed. It was not risk free and had no effect on longevity. (A study such as this would not pass an ethics committee today.)

In Denmark fifteen patients underwent an operation for Meniere's disease - an inner ear disorder causing deafness and dizziness. Fifteen patients had a placebo operation. A three year follow up of both groups showed that ten in each group had almost complete relief from the symptoms. (Thomsen J., et al Placebo Effect in Surgery for Meniere's Disease: Three Year Follow-up Otolaryngology- Head and Neck Surgery 91, 183 (1983))

Even in straightforward operations with proven benefits, a good outcome does not depend solely on the surgeon's skill with the scalpel. Patients who are visited by the anaesthetist the night before, reassured and told what will happen, often need less anaesthetic the next day, do better in surgery, are discharged more quickly, and have fewer post-operative complaints. The eminent surgeon J. Finney, who was Professor of Surgery for many years at John Hopkins Medical School, stated publicly that he would not operate on any patient who expressed a fear that they would not survive the operation. (Finney J., Discussion of Papers on Shock Annals of Surgery 100 page746 (1934)) There is also evidence that patients under anaesthesia can hear what the surgeons are saying about them. Under hypnosis, patients have recalled comments made about them in the operating theatre that have been subsequently verified by those present. When these comments are negative and cast doubt on their recovery the patients are

worried. (Cheek D. , and Rossi E ., Mind Body Therapy Norton pp113-130 (1988))
Some doctors have proposed hanging a sign in every operating theatre saying, 'Be careful, the patient is listening.'