Psynapse

ADVANCED TOPICS

Just a Spoon Full of Sugar?

Jennifer La Grassa

When it comes to healthcare, the placebo effect demonstrates that bedside manners might be just as important as accurate diagnoses and medication.

On a late South African evening, should you stumble upon the !Kung Bushmen tribe you may find them communally singing and dancing in elaborative costumes around a fire. Loud clapping and chants will resonate throughout the desert landscape in a seemingly playful manner. As the night wears on, these actions intensify to activate a powerful spiritual energy. Designated healers may begin to shake with sweat as the energy travels up their spines and lays itself at the bases of their heads. When the energy peaks, healers enter an alternate state of consciousness and physically struggle with the sick to relieve them of their illness. Should the healers succeed, the sick member will have been cured. The Western healing process isn't as elaborate, but maybe it should be.

Medical professionals of the Western world explain the healing dance of the !Kung Bushmen as a type of placebo. The placebo effect is traditionally described

as the physiological effect of an inert substance, typically a sugar pill, which can alleviate symptomatic behaviours. As with the !Kung Bushmen, there is no medicine given to the sick and yet, they feel much better. Within the last decade, it's become evident that the placebo effect is a highly cognitive and biological phenomenon, one that is not entirely dependable upon the placebo treatment itself; rather, it depends on a combination of expectancy and classical conditioning. These two mental processes occur as a result of habitually attending the doctor's office upon the onset of an illness. In this case, expectancy refers to the expectation one has at the outset of a medical treatment, whereas classical conditioning involves a learned response that is acquired from contextual cues. For instance, during each doctor's visit, the same contextual cues—pill bottles, stethoscope, and the office itself—are repeatedly paired with some type of drug or medical procedure. The received treatment usually provides relief, which reinforces a positive expectation that going to the doctor's means that wellness awaits. Eventually, just being in the presence of those cues will provide a sense of relief, without any type of actual medication.

Though the surrounding environment has a significant impact on producing the placebo effect, a frequently overlooked component is the influence of the doctor-patient interaction. Placebo research was missing the bigger picture—until now. Researchers were primarily focusing on the context, much like an audience who has just sat down to watch a stage production notes the scenic background and props. While these features enhance the quality of the play, the acting skills of the actors are arguably a more essential component. A good actor emotionally invests the audience and makes the events of the story seem all the more believable. Similarly, a good doctor will make you believe in the effectiveness of the treatment being prescribed and enhance your faith in the recovery process. If many of the improvements seen in the placebo effect result from doctor-patient interactions, then appropriate bedside manners may be a new facet that our healthcare system needs to explore. To further consider how the doctor-patient relationship should be improved, we must define what "appropriate" bedside manners consist of.

Encouraging Environment

The members of the !Kung Bushmen join together to create a caring and supportive atmosphere for their sick. Healers in particular invest a lot of energy into the process, demonstrating a kind character with a strong desire to help. How effective are these attitudes when applied to our doctor visits?

In a supportive atmosphere, patients exposed to a placebo treatment experience more symptom relief than those tended to in a non-supportive environment. Doctors that share minimal eye contact, focus on their computer, and dive into treatment options display a restricted interaction style. This type of limited and disinterested encounter makes most patients reluctant to share information or feel confident in their doctor's recommendations. In comparison, a doctor

who expresses a warm, friendly, and understanding disposition is likely to create optimal relationships with their patients.

Active listening—which involves head-nods, eye contact, and seeking clarification—expressions of empathy, thoughtful consideration, and confident communication skills produce a comfortable environment for the patient. These qualities emphasize a patient-centered approach that individualizes the interaction and enhances the patient's faith in the doctor's expertise. Those with more trust in their healthcare provider are likely to experience beneficial health outcomes.

The doctor should empathize in a manner similar to that of a concerned parent whose child has just taken a fall; as the child runs indoors with a slightly scraped knee, they seek the comfort and attention of their parent, who calms the child by saying that they will "kiss it better." Though the kiss does not heal the wound, it does make the injury less painful. While it would be nice if all of our ailments could be kissed away, clinicians may be better off adopting the empathic and warming qualities expressed by the parent to make their patients feel better.

In order to feel as though proper care and consideration are being taken, the patient should also be given an appropriate amount of time to express their concerns. Doctors tend to have busy schedules, so if they appear stressed and flustered upon entering the room, the patient may withdraw to prevent taking up more of their time. The doctor's disposition influences the type of atmosphere that patients will experience, which can subsequently effect the success or failure of a prescribed treatment. These characteristics are not difficult to convey, but can a smile alone truly change the effectiveness of a treatment?

Positive Expectations

The placebo effect demonstrates that symptom improvement partially depends upon the doctor's belief in the success of the prescribed treatment. Verbal suggestions made by the doctor can cause the patient to develop positive or negative expectations that may influence the trajectory of their illness and the recovery process, particularly in regards to pain.

Patients are more likely to show improvement when the doctor speaks highly of the prescribed medication by using statements such as "I think this will work for you" or "most of my patients get better with this treatment." These comments reassure the patient that they will get better, which is all anyone wants to hear when talking to their doctor. Neutral statements such as "it may or may not work" or "it really depends on the patient" tend to provide no extra boost for improvement. Negative comments fair even worse, as they can bring about nocebo effects. Nocebo effects are adverse physiological responses that arise from fake treatments and often present themselves after having been suggested. Doctors should avoid using phrases that convey uncertainty or ambiguity such as "this medication may help, but we're not sure". Understandably, a doctor cannot guarantee the success of any medical treatment, so it may be more beneficial to provide a pro/con explanation. The doctor should discuss why they are recommending that particular treatment, in which circumstances it hasn't been successful in, and what the next steps would be should that treatment prove ineffective.

On the other hand, being too specific can introduce jargon. For example, using the phrase "the heart's right dorsal tricuspid valve has slight regurgitation" would only add further distress to a concerning diagnosis. As well, emphasizing a negative outcome or making the procedure seem trivial won't make the situation any better—like when the doctor says "this will only hurt a little", but it ends up hurting a whole lot more. In circumstances where the doctor knows it will hurt, they should acknowledge the pain level, but attempt to find a bright side; for example, saying "the procedure will be over shortly" will reassure the patient and direct their attention to the end of the process.

Evidently, the doctor can influence the effectiveness of the suggested treatment through expressions of certainty or doubt. For these purposes, research is investigating patient-practitioner communication as it relates to those diagnosed with cancer, Parkinson's, and other severe illnesses. Though a simple phrase cannot dissolve a tumor, it could mean the difference between severe to mild pain, tiredness, or nausea.

The power behind these verbal suggestions is their source. In Western society, the white-lab coat doctor is a prestigious figure, one who has the utmost knowledge on healing and good health. Medical dominance refers to the hierarchical relationship between the patient and practitioner, whereby the doctor's status allows their viewpoint to be favoured. It is likely by these means that the doctor's words become highly influential, enough so to improve or worsen symptoms even in the absence of medication.

While these suggestions may seem simple, doctors can't deliver all prognoses in a positive manner or disregard the side effects and potential risks of a recommended treatment. Patients must be rightfully informed, but the manner in which doctors engage in this conversation could be refined. Providing neutral comments while remaining upbeat might be all the difference a patient needs.

Side Effect Revelation

The amount of emphasis placed on the side effects of

any medical intervention increases the likelihood that they will appear. Placebo studies that administer fake acupuncture, creams, or medication will often list potential side effects that cannot actually occur as a result of the medical procedure. Surprisingly, patients tend to report experiencing the very symptoms they were warned about and, in extreme cases, have physical reactions that lead them to drop out of the study. It could be assumed that an individual who experiences adverse symptoms from a fake treatment is partaking in a self-fulfilling prophecy. That is, they know the symptoms they should expect to feel, which is what causes them to occur. Consider an individual who has just been prescribed anti-depressant medication and is told by their doctor that headaches are a common side effect. The individual may experience slight head pains in the next few days as a result of their expectation. Although the root cause is psychological, people can experience very real physiological symptoms.

Brain imaging techniques have observed elevated activation within various frontal regions upon the anticipation of pain. These neural mechanisms are a bit complex and not fully known, but anxiety appears to facilitate their activity. Distress or discomfort are often experienced when the doctor emphasizes the potential pain level of the procedure or attempts to sympathize with patients during treatment. Those who have experienced negative side effects or have witnessed them in others are most susceptible to nocebo effects. Nocebo effects are even capable of overriding the effects of pharmaceutical drugs, whereby individuals who are told that their pain medication has stopped suddenly report feeling more pain even though the drugs were still being administered.

The placebo effect has provided medical researchers the opportunity to study the influence of different aspects of our healthcare system in the absence of medication. By doing so, they've revealed that contextual cues and genuine interactions with medical personnel have their own role in the healing process. It's as simple as a friendly disposition and positive reassurance that can potentially mean the difference between getting better or worse. Placebos have revealed that healing can be a very ritualistic and performative experience, two factors that the scientific community often overlooks. While medication and surgery are essential components, doctors should begin to consider how their social interactions affect patients in the long-term. Refining these encounters may provide a boost within our healthcare system. Though it's clear that bedside manners won't completely heal nor injure a patient, they do influence the treatment process.

An optimal healthcare system would be one that combines proper diagnosis with good medication, and personable medical staff. Initially, the healing ritual performed by the !Kung Bushmen seems quite foreign and absurd, but it has implications for feeling better. Observing their communal care and connection highlights qualities and attitudes Western healthcare should adopt. As useful as medication and technology are, compassion is fundamental for human care.

- Arora, N. K. (2003). Interacting with cancer patients: The significance of physicians' communication behavior. *Social Science & Medicine*, *57*(5), 791–806.
- Colagirui, B., Schenk, L. A., Kessler, M. D., Dorsey, S. G., & Colloca, L. (2015). The placebo effect: From concepts to genes. *Neuroscience*, *307*, 171–190.
- Collyer, F. (1994). Medical dominance in the Australian health system: The case of the bionic ear. *Explorations in Knowledge*, *11*(1), 1–12.
- Czerniak, E., Biegon, A., Ziv, A., Karnieli-Miller, O., Weiser, M., Alon, U., Citron, A. (2016). Manipulating the placebo response in experimental pain by altering doctor's performance style. *Frontiers in Psychology*, 874(7), 1–10.

- Enck, P., Benedetti, F. & Schedlowski, M. (2008). New insights into the placebo and nocebo responses. *Neuron*, *59*(2), 195–206.
- Hall, K. T., Loscalzo, J., Kaptchuk, T. J., (2015). Genetics and the placebo effect: The placebome. *Trends in Molecular Medicine*, *21*(5), 285–294.
- Kaptchuk, T. J., Friedlander, E., Kelley, J. M., Sanchez, M. N., Kokkotou, E., Singer, J. P., . . . Lembo, A. J. (2010). Placebos without deception: A randomized controlled trial in irritable bowel syndrome. *PLoS ONE*, *5*(12), 1–7.
- Kaptchuk, T. J., Kelley, J. M., Conboy, L. A., Davis, R. B., Kerr, C.
 E., Jacobson, E. E., . . . Lembo, A. J. (2008). Components of placebo effect: Randomised controlled trial in patients with irritable bowel syndrome. *British Medical Journal*, 336(1), 1–13.
- Kaptchuk, T. J., & Miller, F. G. (2015). Placebo effects in medicine. *New England Journal of Medicine*, *373*(1), 8–9.
- Kaptchuk, T. J., Shaw, J., Kerr, C. E., Conboy, L. A., Kelley, J. M., Csordas, T. J., . . . Jacobson, E. E. (2009). "Maybe I made up the whole thing": Placebos and patient's experiences in a randomized controlled trial. *Culture, Medicine and Psychiatry*, 33(3), 383–411.
- Kaptchuk, T. J., Stason, W. B., Davis, R. B., Legedza, A. R. T., Schnyer, R. N., Kerr, C. E., . . . Golman, R.H. (2006). Sham device v inert pill: Randomized controlled trial of two placebo treatments. *British Medical Journal*, *332*(7538), 391–397.
- Keeney, B., & Keeney, H. (2013). Reentry into first creation: A contextual frame for the Ju/'hoan Bushman performance of puberty rites, storytelling, and healing dance. *Journal of Anthropological Research*, 69(1), 65–86.
- Klaric, M., Mandi, V., Lovric, S., Coric, M. K., Zovko, N. (2017). Placebo and nocebo effects and their significance in clinical practice. *Medicinski Glasnik*, *14*(1), 16–24.
- Klinger, R., Soost, S., Flor, H., Worm, M. (2007). Classical conditioning and expectancy in placebo hypoalgesia: A randomized controlled study in patients with atopic dermatitis and persons with healthy skin. *Pain*, *128*(1), 31–39.
- Koban, L., Jepma, M., Geuter, S., & Wager, T. D. (2017). What's in a word? How instructions, suggestions, and social information change pain and emotion. *Neuroscience & Biobehavioral Reviews*, advance online publication.

- Lephoto, C., & Yarnell, J. (1996, Dec. 16). *The Ancient Science of*!Kung Healing. Retrieved from http://www.mamiwata.com/kung/kung.html
- Lucassen, P., & Olesen, F. (2016). Context as a drug: Some consequences of placebo research for primary care. Scandinavian Journal of Primary Health Care, 34(4), 428–433.
- Mistiaen, P., Van Osch M., Van Vliet, L., Howick, J., Bishop, F. L., Di Blasi, Z., . . . Van Dulmen, S. (2016). The effect of patient-practitioner communication on pain: A systematic review. *European Journal of Pain*, 20(5), 675–688.
- Thomas, K. B. (1987). General practice consultations: Is there any point in being positive? *British Medical Journal*, *294*(6581), 1200–1202.