

Features

I Shall Please—Placebo & Yoga Therapy

By Matt Erb and Marlysa Sullivan

Did you know that the color of a pill can influence its effectiveness,¹ or that taking placebo pills four times a day is more effective than taking them two times a day?² How about that pills issued under their brand names are more effective than generic versions?³ That capsules may bring about a stronger effect than tablets, and that the larger the pill⁴ or the more expensive you believe the pill is,⁵ the more effective it may be?

A 2008 meta-analysis demonstrated that the placebo effect replicates 80% of the response to antidepressant medications. Patients with low to moderate depression benefited the most from placebo, whereas those with increasingly severe depression benefited more from the medication. The latter effect was linked to decreased responsiveness of the placebo mechanism rather than to increased response to the medication.⁶

So what is going on here?

Research into placebo points to a fascinating mind-body mechanism at work, one that is often casually dismissed. How often do we hear, “Oh, that’s just the placebo effect”? Perhaps you’ve had this come into your own mind when you felt better after a treatment of some kind. A collective belief system rooted in the splitting of mind and body implies a vague, chance occurrence, or even no “real” measurable effect. This perceived lack of specificity to an identifiable mechanism may contribute to a failure to take particular therapies, tools, and treatment modalities seriously. The rising human costs of chronic conditions such as depression and pain syndromes and their amenability to placebo underscore the importance of an understanding of this topic for yoga therapists.

This article examines the placebo effect, its mechanisms of action, and its relevance to yoga therapy practice.

Placebo Redefined

Placebo can be seen as the elephant in the room for integrative health practition-

ers. Placebo, in one sense, is about the creation of images of healing, and thus a physiological state of healing. Our innate desire to be well is one big and powerful animal. The oft-heard earlier statement implies, “Oh, that’s just your imagination,” which in turn implies that imagination is somehow weak. The literal translation and basic meaning of placebo, “I shall please,” reflects our inherent intention to heal, feel better, or even derive pleasure. Rather than being weak, the mechanisms of placebo are so powerful that research design seeks to rule them out. The opposite, nocebo (“I shall harm”), reflects an expectation of an unpleasant experience and is linked to aversion to discomforts such as painful sensations, mental distress, or difficult emotions. Nocebo is often found in negative beliefs about treatments or procedures and is linked to the mind-body mechanisms of anticipatory fear and anxiety.⁷

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The placebo effect is often poorly defined and misunderstood. Definitions may reinforce a split between mind and body, assume no true physical effect, or focus solely on pharmacological interpretations. Jeanne Achterberg, who studied imagery, shamanism, and their relation to placebo, references the importance of “the determination of the power base of the patient, and the enemy; an examination of motives and belief systems, and an interpretation of the trauma in the cultural context.”⁸ Borrowing from this we suggest the following definition:

Placebo is any substance, treatment, or modality that brings about healing based on either conscious or unconscious individual or collective beliefs. Placebo includes cultural context, represents the imaginal power base of the patient, is based on the inherent desire to relieve suffering, and—increasingly—has identifiable physiological correlates.

Yoga therapy may be considered to help activate this powerful placebo mechanism, as its practices empower individu-

als toward improved health and well-being. Yoga therapy also offers a methodology to explore habitual beliefs and patterns, both conscious and unconscious; facilitates the innate drive to alleviate suffering; and has similar increasingly identifiable physiological correlates. We will look at how both yoga and placebo suggest an intrinsic movement toward wellbeing and the potential health within us all. Can the connection to inner wisdom at the root of yoga philosophy and practices be a root of both placebo and innate healing? Why, instead of ruling out the elephant in the room, do we not greet it openly and create space for this often-mysterious mechanism to work its magic?

Powerful Effects

The placebo effect has been widely attributed to people’s expectation that they are getting the “real” treatment and not the

“fake” one. If this were the case, we would not expect an effect if participants are told up front that they are getting a placebo and not an active medication, right? A 2010 study⁹ at the Harvard Program in Placebo Studies and Therapeutic Encounter at Beth Israel Deaconess Medical Center looked at people with irritable bowel syndrome (IBS), a common, often debilitating, condition. Half of the study participants were told they were getting a placebo and the others received nothing. This “open-label” placebo study found a significant improvement in the placebo group’s IBS symptoms even though they were explicitly told they were getting a “sugar pill” without any medication. More recently, the same team demonstrated a 30% improvement in lower-back-pain ratings using an open-label study design.¹⁰ These findings point toward mechanisms of effect beyond thinking one is getting a prescribed, valid treatment.

Ritual in various forms may play a significant role in the placebo effect, such as the conditioned responses around the action of swallowing a pill. Another example

closer to the work of yoga therapy comes from studies on placebo acupuncture that demonstrate an effect from both ritualized physical contact during the application of a sham acupuncture method and from the emotional context of the acupuncture delivery. In that study, participants who received a ritualized interaction

Scientific Basis

The placebo mechanism reflects a mind-body interaction wherein both conscious and unconscious expectation for improvement has specific physiological correlates. Yoga shares some of these potential mechanisms of physiological effect.¹⁴

the whole of each person. Interactions among environmental, genetic, physical, chemical, nutritional, mental, emotional, energetic, and spiritual levels would thus be considered influential in the manifestation of placebo for each individual. This is consistent with the understandings that arise from the complex interplay and holism of the *koshas*.

Placebo and Yoga Therapy

How can this discussion inform your yoga therapy practice? After all, don't we already know that yoga works though mind-body mechanisms? Yoga and placebo share similar ways of affecting physiological systems, particularly those pathways involved in the stress response and immune system regulation.^{17,18} Understanding the importance of ritual in the intentionality brought to the practice and the development of the therapeutic relationship are two additional ways yoga can be seen as a form of open-label placebo. Just as placebo represents a powerful intrinsic movement toward healing, yoga explores practices that awaken healing forces to either lessen or improve one's relationship to suffering, and thus moves us toward greater wellbeing.

Shifting the emphasis of the therapeutic perspective to the facilitation of the inner healing nature of the client and away from the disease state empowers the client in the healing process; the condition becomes secondary, as yoga therapy emphasizes understanding the habits of the body and mind, moving away from disease, and toward the remembrance of well-being. Indeed, this state of wellbeing that yoga seeks to cultivate has been tied to mind-body benefits such as decreasing loneliness, regulation of immune function, and decreased inflammation.^{19,20} *Pranavidya* can refer to the wisdom of the vital life force within us when we silence the fluctuations of the mind and come into alignment with the flow of life within. Could placebo effects reflect this natural flow of health and wellbeing, a flow with which yoga therapy seeks to facilitate alignment?

Throughout the yogic texts we encounter the concept of faith, surrender, trust, and devotion to something else, be it an outer expression of spirit, an inner wisdom of being, or the same inherent drive toward health and wellbeing as placebo. The yoga sutras refer to this as *shraddha*



Photo by Matt Erb

did better than patients receiving the identical needling procedure with a minimized, neutral interaction. The ritualized interaction included five components: a warm, friendly manner; active listening (e.g., repeating the patient's words, asking for clarifications); empathy (e.g., "I can understand how difficult IBS must be for you"); 20 seconds of thoughtful silence while feeling the pulse or pondering the treatment plan; and communication of confidence and positive expectation ("I have had much positive experience treating IBS and look forward to demonstrating that acupuncture is a valuable treatment in this trial").¹¹ Ritual is similarly found in yoga therapy through the emphasis on client-practitioner relationship; practices such as the setting of intentions through ethical practices or in asana, pranayama, or meditation; and the format of the session itself with centering, the body of the practice, and closing.

Finally, it is important to note that even sham surgery can be highly effective.¹² One highly publicized example compared real to sham arthroscopic knee surgery. Although both groups had significant improvement in outcomes, the patients assigned to the arthroscopic surgery group had no greater improvement than those assigned to sham surgery.¹³

Research has demonstrated that the placebo mechanism involves activation of multiple systems including the endogenous opioid system, nonopioid mechanisms, and other neuropeptide and endocrine changes such as serotonergic-dependent hormone secretion. It has also been shown to act on cardio-respiratory centers, the immune system, the hypothalamic-pituitary-adrenal axis and other central stress-response mechanisms, and motor control. Patterns of fMRI activation, including regions associated with high concentrations of opioid receptors—such as the insula, thalamus, and prefrontal cortices—have been demonstrated.¹⁵

Essentially we have to look for different mechanisms in different medical conditions where placebo is active, because there is not a single effect but many. Examples include influence on motor control in Parkinson's disease, opioid pathways in analgesia, and limbic-cortical regulation in depression.¹⁶ The placebo effect is believed to be learned through conditioned responses, depending on the system involved (e.g., pain or hormone secretion). Unique differences in the conditions support the learning and subsequent activation of the many mechanisms that inform placebo—and its opposite, nocebo—reflecting the complexity that informs

(faith), the first of the five virtues, and as the ethical principle *ishvara pranidhana* (surrender to the divine). In the Bhagavad Gita, Krishna offers Arjuna the idea of devotion, or surrendering all actions to him to cultivate right action toward living in alignment with his dharma.

This sense of trust or faith is an essential piece in the work of placebo as well as in the therapeutic practice of yoga. Trust in the practice is necessary for the discipline and consistency called for by the Sutras and for yoga to become part of the client's self-care and self-regulatory regimen. This sense of faith is also an essential part of the therapeutic relationship, which the yoga tradition speaks to in terms of guru and disciple. The therapeutic relationship may first begin as an outer trust in the yoga therapist, cultivated via an empathetic field. If the initial experience is positive, the strength of the shradha may expand. It is essential that this outer trust in the yoga therapist becomes an inner trust in the practice itself. As one evolves toward a more purely internal foundation rooted in belief, faith, and trust, the power of placebo is withdrawn from external targets and increasingly reclaimed as self-mastery through self-care and a sense of self-efficacy. In addition, we are in a time of marked growth in what we might call a "collective shraddha" in yoga as a viable path toward a fuller experience of wellness and wholeness. This is seen in the public's acceptance of yoga for health conditions and in the integrative health movement in general.

Shraddha at least partially describes mechanisms of placebo as tied to individual or collective belief, confidence, or even certainty, all as expressions of the will and the desire to feel better. It is not a stretch to link this to the scientific understanding of placebo, where a strong correlation between an expectation and a result occurs. Often this happens below conscious awareness, but as with open-label placebo studies, the mechanism can be used more consciously. The link between expectation and result may be amplified when people are actively participating in their care, rooted in intent and belief in the treatment, and involved in a shared decision-making process.

Equally, our ability to recognize and work with manifestations of nocebo increases. For example, cultivating awareness of the effect of thinking one's "back

is trashed"—based on the belief that degenerative change causes pain—may actually help reduce the pain. Yogic practice brings the mind-body connection to conscious awareness so clients can claim a greater degree of ownership of their thoughts, beliefs, and actions that lead toward health or harm. *Samskaras* are the subtle impressions of our past experiences

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and actions, some of which exist as negative-pattern generators that contribute to fear, anxiety, and the nocebo effect. As the client's ability to recognize and disentangle from these patterns grows, the potential exists for more positive constructs of belief, trust, and faith in inner wisdom. In other words, as nocebo is diminished, placebo is heightened. A safe container between therapist and client, built on non-judgmental self-awareness, is key. Subsequent practices that aid in this healing journey include introspective inquiry by both client and therapist into physical sensations, movement awareness, and affective states.

Conclusion

The biology of placebo reflects a built-in system that mediates a positive interaction among mind, body, and environment. Consciously co-creating an experience that supports our innate intention to heal, including across levels of koshic interaction, fundamentally reflects yoga therapy. Sometimes, perhaps often, this means getting out of the way and allowing the innate potential of "I shall please" to manifest. Exploring a patient's experience, including in the context of individual beliefs and motives, is a good practice before teaching. Yoga therapists may need to gently facilitate awareness of *samskaras* that reinforce nocebo. Active promotion of placebo includes provision of a basic understanding of the scientific basis of each tool; cultivation of a positive, empathic relationship; and conscious attention to the corresponding physical, mental, emotional, social, and spiritual responses of each individual as his or her journey progresses. Clients can also be guided toward diminished nocebo and heightened

placebo through *yama* and *niyama*; relevant yoga philosophy; and the practices of asana, pranayama, and meditation. In all of these practices, a focus on the present moment experience; inquiry into habitual patterns and the potential to change the relationship to mind-body sensation; and broadening the field of attention into self-awareness, self-actualization, and the

innate potential for wellbeing may help. Yoga therapy is well suited to support the effects of placebo and transform the mechanisms of nocebo that perpetuate suffering. Yoga therapy allows for innate healing processes to emerge and the wisdom of one's life force to bring out the experience of wellbeing beyond disease conditions. Placebo has been demonstrated to be individually unique based on prior experience. Thus, we must work to understand the uniqueness of each person's past and present experience; practice deep listening to their beliefs and expectations for treatment; and understand that no two experiences, nor even the most effective treatment modalities, will ever fully be the same. **YTT**

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