

The fact that placebo is often contributory to an end result is not a new or shocking finding. However, to dismiss placebo as irrelevant or unimportant is wrong. Placebo is a remarkably important and sometimes powerful factor in health care. However, the impact of placebo is not always clear-cut. Indeed, Kaptchuk (2008) reports that there are many non-treatment, unintended, and non-placebo factors that may impact scientific studies and test results and are worthy of consideration, such as spontaneous remission, unintended bias, regression to the mean, artifacts of measurement, natural fluctuations of the disorder/illness, and more.

Kaptchuk and Miller (2015) report in the *New England Journal of Medicine* that placebo effects are more-or-less considered effects of some “inert substance.” However, that may be too simple of an explanation and perhaps a bit misleading. They report that “placebo effects are improvements in patients’ symptoms attributable to their participation in the therapeutic encounter, with its rituals, symbols, and interactions...” Kaptchuk and Miller note that “placebo effects rely on complex neurobiological mechanisms involving neurotransmitters (e.g., endorphins, cannabinoids, and dopamine) and activation of specific, quantifiable, and relevant areas of the brain (e.g., prefrontal cortex, anterior insula, rostral anterior cingulate cortex, and amygdala in placebo analgesia).” Kaptchuk and Miller report that although placebo may provide symptom relief, placebo rarely cures. They state that “placebo effects are often considered unworthy and illegitimate” and unfortunately, placebo is often dismissed out of hand. However, they note that the goal of medicine is to heal, “which can include cure, control of disease, and symptom relief or provision of comfort...” and in that regard, placebo (and additional research into placebo) has a role to play in modern medicine.

Likewise, in hearing aid fittings, placebo is often a factor—although admittedly, it may often be overlooked. Dawes et al (2011) reported that placebo might be thought of as a clinical result based on expectations, rather than the result of an actual treatment. Indeed, the authors state that “placebo effects reliably impact hearing aid trials.” Their study involved 20 experienced hearing aid wearers/patients whose task was to evaluate “new” versus “conventional” hearing aid technologies. As you might guess, the exact same instruments were provided to the patients using a balanced design that included different colored shells. All instruments were fitted and verified to the NAL protocol, speech-in-noise tests, as well as quality and personal preference ratings. Interestingly, although there were no differences (at all!) in the instruments, 15 of 20 patients chose the “new” hearing aid as superior and 5 of 20 could not tell any difference. Also of note, none chose the “conventional” hearing aid as superior. Dawes, Powell and Munro concluded typical measures associated with hearing aid fittings in the fitting protocol are influenced by patient expectations and they cautioned that hearing healthcare professionals should attempt to control for placebo effects in the fitting of hearing aids.

Naylor, Oberg, Wanstrom and Lunner (2015) evaluated the narrative style of the intervention itself (i.e., the quality of the conversation, the point of view, the words chosen, the stated goals and more) impact the final result. Naylor et al. evaluated 24 experienced hearing aid users and 16 first time users using a balanced crossover design. The same hearing aids were issued to each patient and they were each programmed exactly the same. However, each of the 24 participants experienced an

“interactive” (designed so the participants felt they were involved in creating their own settings) and a “diagnostic” (designed so the participants were essentially passive and un-involved) narrative. Three outcomes measures were used (HHIE, IOI-HA and HAPQ). The authors report “For the majority of subjects, a clear and relatively strong preference was stated for one of the two fittings...” (again, the electro-acoustic settings were the same, the variable was the narrative). They note “The narratives probably affect HA fitting outcomes, although we are unable to state anything about what kind of narrative is good for whom....” Perhaps most importantly, “subjects overwhelmingly related their preferences to sound, despite there being no acoustical differences....” They state “this points toward a tendency of people with impaired hearing to place trust in the narrative provided by the hearing care professional rather than in any evidence provided by their own ears....”

Naylor et al conclude that “the narrative embodied in a given hearing aid fitting process can have a substantial effect on the perceived benefit of the fittings” primarily for experienced hearing aid users. They say that “in the absence of acoustical differences...narrative differences...may affect self-report outcomes measures as much as typical acoustical differences do....” However, “for first-time users, acclimatization seems to overshadow the purely narrative effect of any fitting process.”

Therefore, it seems apparent that as we create and offer narratives to our patients regarding their diagnosis and treatment plan, we need to be aware that the words, expressions, body language and nature of the visit likely impact the outcome. Not a surprise, just a reminder, it isn’t all about the product—the professional and professionalism matter.

For More Information, References, and Recommendations

Dawes P, Powell S, Munro K. (2011) The Placebo Effect and the Influence of Participant Expectation on Hearing Aid Trial. *Ear & Hearing* 32:767-774.

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