
Clinical Hypnosis for the Alleviation of Tinnitus

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Abstract: The neurophysiology of tinnitus is poorly understood, and it can have an origin at a number of neural levels, making a psychological approach to treatment attractive. Clinical hypnosis has been demonstrated to be effective in a number of clinical situations, such as irritable bowel syndrome but, in other areas for which it is commonly employed, such as smoking cessation, the evidence is poor. Its use for the management of troublesome tinnitus has been discussed in the literature for more than 30 years, but little formal research has been conducted into efficacy of this treatment or the relative suitability of techniques. Despite this, a success rate of 70% is commonly quoted by hypnosis practitioners in promotional material. This review summarizes the few peer-reviewed studies on this subject and concludes that, though evidence suggests that hypnosis provides a benefit in some subjects, how this benefit compares to more mainstream approaches is not yet clear. This area is currently under-researched, and engagement is encouraged between researchers in audiology and hypnotherapists to undertake large, well-structured controlled trials with standardized measures of outcome.

Key Words: hypnosis; hypnotherapy; tinnitus

Clinical hypnosis is a growing field that is receiving increasing attention from the medical and psychological communities and is slowly freeing itself from the widespread skepticism induced by “stage” hypnotism, to which it bears little resemblance. It aims to induce a state of deep relaxation in the patient while maintaining normal mental activity, allowing for better application of psychological techniques, such as cognitive-behavioral therapy and neurolinguistic programming. Modern practice draws heavily on the work of Milton Erickson [1], who was a keen proponent of the superiority of indirect over direct suggestion and from whom many practical techniques were derived. Its efficacy has been demonstrated in a number of clinical situations for a wide variety of conditions, from irritable bowel syndrome [2] to preoperative anxiety [3], with meta-analysis showing an enhanced treatment outcome when it is used to supplement cognitive-behavioral therapy [4]. Equally, its efficacy has been questioned in areas for which it was previously thought to have use, with a Cochrane review challenging the evidence for its use in smoking cessation [5]. Though such institutions as the British Institute of Hypnotherapy and the General

Hypnotherapy Standards Council have recently formed a regulatory board and introduced an ethical code, currently no restrictions govern setting up a hypnotherapy practice in the United Kingdom.

Tinnitus aurium, more commonly known simply as tinnitus, is the subjective sensation of sound in the absence of external auditory input. It can be deemed a natural phenomenon; Heller and Bergman [6] found that more than 93% of reportedly normally hearing adults were subjectively aware of a buzzing, humming, or ringing sound when allowed to sit quietly in a sound-proofed booth. Though for the majority of individuals tinnitus is sub-audible in most situations and has little impact on their quality of life, Coles [7] found that 0.5% of the population of industrialized countries reported that tinnitus had a severe effect on their ability to lead a normal life.

The midbrain auditory nuclei receive substantial efferent innervation from higher centers [8], and the subjective experience of sensory phenomena is strongly modulated by attentional effects, which can cause changes in auditory cortex activity levels [9]. Also, as with all chronic conditions, affected patients’ perception of their own tinnitus strongly affects the impact it has on their life. In light of these two considerations, tinnitus might be expected to be amenable to a psychological approach and, indeed, most hypnotherapists include tinnitus as one of the conditions for which they can provide help.

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The use of hypnosis in the management of tinnitus is not a new concept, with techniques being discussed in the literature more than 30 years ago [10] and case reports published 20 years before that [11]. Despite this fairly long history, little peer-reviewed research has been conducted into the suitability of the various techniques and even the validity of hypnosis as a management strategy. Where such research does exist, evaluating it comparatively is difficult, as no standard treatment method is agreed on. Whereas some argue that tinnitus can be likened to a chronic pain and treated in that way, others use time regression to return the sufferer to a state before the tinnitus was experienced, and whereas some emphasize a session-based approach, others espouse regular self-hypnosis or the middle ground of audiotaped hypnotherapy [12]. Article authors are often themselves hypnotherapists, meaning that research bias, however unintentional, may color some of the conclusions they draw from their data.

Dobie [13] conducted a review of randomized controlled trials of all treatments for tinnitus and concluded, "No treatment can yet be considered well established in terms of providing replicable long-term reduction of tinnitus impact, in excess of placebo effects." Despite this, a success rate of some 70% is commonly quoted by hypnosis practitioners in promotional material. This review will attempt to evaluate the evidence base for this claim and the validity of hypnotherapy as a treatment of tinnitus.

CHOICE OF TECHNIQUE

Relatively few authors have attempted to rationally compare the differing hypnotherapeutic strategies for tinnitus treatment, but this was attempted by Marks et al. [14]. In their 1985 study, they selected a group of 14 patients who suffered intractable unilateral tinnitus that had failed to respond to "all other" forms of therapy. These authors compared the effects of trance induction alone, ego strengthening, and active tinnitus suppression by providing all three to each subject in a random order. They found that 5 of their 14 subjects reported that they could tolerate their tinnitus better after the trance induction alone (the experimenters' control condition), though their tinnitus loudness and quality were unaltered. None of the subjects responded to ego strengthening, and only one responded to active tinnitus suppression, though this response was deemed "highly significant" by the authors. Though no statistical conclusions can be drawn from these data owing to the small size of the sample, it seems that in this case the very act of hypnosis was sufficient for the subjects to derive optimal benefit; therefore, trials using different techniques may be more comparable than initially assumed.

RATE OF SUCCESS

Many hypnotherapists' Web sites quote a success rate of approximately 70% for hypnotherapy as a tinnitus treatment; at the time of writing, the first Google search result for the terms *hypnotherapist tinnitus* is from <http://www.hypnosis.me.uk> [15], which states that "studies have been done which show that over the long term, a well designed hypnotherapy program has a 69% success rate of reducing tinnitus noise. The key points to note here are 'long term' and 'well designed.'" Though they do not cite a source for it, this figure may stem from the work of Mason and Rogerson [16]. In this study, the authors used a three-session approach with 41 patients of mixed gender and a mean age of 54 years. They found that 68% of the group showed "some benefit" for their tinnitus symptoms 3 months after completing their hypnosis, whereas the other 32% did not. The authors further analyzed their data and found that a significantly higher proportion of those who had not found benefit had a hearing loss associated with their tinnitus (46% as opposed to 15% of those who found benefit).

These results give rise to a number of questions (not addressed by the authors themselves):

- Why was their treatment so much more effective than that reported in the study by Marks et al. [14], which found only a 43% success rate with maximal treatment and a three-session approach?
- Why did those with hearing loss derive less benefit?

The difference in success rate could be due to a number of factors. Marks' subjects were chosen for the constant nature of their symptoms, their unilateral tinnitus, and their insensitivity to other treatments. Mason and Rogerson did not have such strict selection criteria and, as such, may have had "easier" subjects. This does not invalidate their claims, however, as their subject pool was probably more representative of a hypnotherapist's client base. What is more difficult to accept is their choice of outcome measure. Though Marks et al. may be criticized for measuring improvement immediately, Mason and Rogerson's 3-month period initially looks promising, as tinnitus is a chronic condition, and any benefits must be present in the long term. Those authors reported, however, that 68% showed some benefit in reducing their symptoms after 3 months, though 32% did not. Tinnitus, as a chronic condition, is influenced by many factors, including stress levels and psychological state and, as such, waxes and wanes over time. Three months is a long enough period for such effects to occur, and one might reasonably expect half of a completely untreated group of individuals to report symptom improvement over this time. Mason and Rogerson included no such control group figures, rendering interpretation of their data difficult.

The finding that the group with hearing losses derived less benefit is interesting. Individuals with hearing loss are actually less prone to tinnitus than those without—when it is strictly defined as any audible sound in the absence of external stimuli—possibly because they simply cannot hear sounds that would be constant and annoying to those with normal hearing. Despite this, when tinnitus does occur in such individuals, it is often much more disabling [17] than in their normally hearing counterparts and, as such, they are overrepresented in tinnitus clinics. This may be accounted for by the inaudibility of low-level sounds that would have a masking effect in a normally hearing subject; this in turn might contribute to the lack of improvement, as attention modulation techniques become less successful. The intrinsic damage to the cochlear hair cells that underlies most sensorineural hearing loss could be the source of the tinnitus in some cases, and this lower-level input might have been less amenable to change by the subconscious than would be a more central problem.

INTENSIVE METHODS

Though the majority of therapists seem to offer a one- to three-session treatment plan, some advocate a longer-term, intensive regime. Ross et al. [18] have published an evaluation of what they call a “comparatively short” 28-day inpatient “multimodal treatment concept based on the principles of Ericksonian hypnosis.” They reported that some 90% of the inpatient group (393 patients) had some improvement, on the basis of a quantitative symptom questionnaire and a health-related quality-of-life measure, as opposed to only 20% of waiting-list controls. These figures are from the time of discharge from the 28-day treatments; measures were also taken at 6 and 12 months, showing that results were stable. These data, from a large subject pool, are impressive, and the authors’ description of this treatment as “comparatively short” as related to the lifelong suffering of many tinnitus patients is understandable. Unfortunately, the authors’ use of waiting-list controls seems slightly disingenuous, as these individuals are no doubt in a situation of increased stress as they are forced to wait. They certainly will not have received a comparable amount of health care provider contact time, which alone might have alleviated their symptoms.

COMPARISON TO OTHER PSYCHOLOGICAL TREATMENTS

Attias et al. [19] compared taped hypnosis to an auditory masking technique (also using a tape) and simple attentiveness to the patient’s complaints. Those authors had 15 age-matched male subjects in each group, all of

whom had tinnitus related to auditory trauma. The authors found that masking alone was statistically ineffective, attentiveness to their complaints partially relieved symptoms, and self-hypnosis significantly reduced symptoms. They reported that the hypnosis-treated group improved significantly on 7 of the 10 measured “disturbing symptoms” as compared to a combined group of the two controls, though this choice of outcome measure has been criticized for being neither validated nor well established [20]. These results replicated Attias’ earlier, smaller study [21], in which he randomly assigned groups to four sessions of hypnosis, brief-auditory stimulus masking, or waiting-list control; only the hypnosis group received statistically significant benefit at 2-month follow-up. Their findings, while encouraging, are weak owing to their small sample sizes; the only statistically significant group difference was found when the control groups were combined to increase power of the study.

Three years after their first study, Mason et al. [22] essentially repeated it with a better control group. They selected 86 patients and randomly assigned them to receive either a single session of counseling, a treatment commonly prescribed by the British National Health Service, or a three-session “client-centred” hypnosis program. The outcome measures in that study were both quantitative and comparative. Both treatments showed significant benefits in all of the quantitative measures, and no statistically significant difference between them was found. The only difference noted was that more of the hypnosis group reported a “general sense of improvement” (45.5% as opposed to 14.3%). Quantitative measures of tinnitus loudness and severity could be proposed to be unimportant, so that all that matters is the patient’s sense of improvement; however, the authors themselves note that the study did not demonstrate whether this was a genuine effect of the hypnosis or was simply due to the greater amount of time spent with a therapist in the hypnosis group.

DISCUSSION

Though evidence demonstrates that hypnosis can be of benefit in the treatment of tinnitus in some individuals, how it compares to other forms of psychological therapy still is not clear, nor is what treatment approach produces the best outcomes. Objective evidence certainly is insufficient to support the common claim of a 70% success rate; this figure appears to be primarily anecdotal. Stewart [23] recently published a review of the current state of hypnotherapy as a medical treatment. His conclusion seems apt in this case: “Despite substantial variation in techniques among the numerous reports, patients treated with hypnosis experienced substantial benefits for many different medical conditions. An expanded role

for hypnosis and a larger study of techniques appear to be indicated” [23].

At present, the policy of the British National Health Service would seem the most effective at a public health level. The finding by Mason et al. [22] that counseling produced equivalent objective results with less overall session time would suggest that this approach is a more efficient use of resources. What remains to be seen is whether an intensive 28-day treatment program, such as that proposed by Ross et al. [18], will be feasible within the United Kingdom’s publicly funded health care structures, regardless of its efficacy.

It is hoped that raising the profile of hypnotherapy for the treatment of tinnitus among the audiological community will stimulate a desire for research in this area. In particular, an effort should be made to engage with hypnotherapists to organize properly structured and controlled clinical trials with sufficient power to produce meaningful results. Standardized measures of outcome should be agreed on to allow comparison between trials and meta-analysis of results. Larger studies should also assess whether efficacy is greater in certain groups, so that the provision of therapy can be tailored more efficiently.

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