

Update: ATA-Funded Research

Tinnitus Music Therapy – Report for *Tinnitus Today*

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Music is pervasive in our lives. Many people use it to relax or for listening pleasure. Most clinical patients perceive tinnitus as a stressful sound, so it is natural that they choose listening to music to combat their condition. Some patients find the use of broadband noise (a "whooshing" sound) unpleasant or disturbing when they use it to mask their tinnitus. Music, on the other hand, provides a natural alternative for those needing to surround themselves with background sound to cope with their tinnitus.

on thoughts and emotions, hearing and communication, sleep and concentration – depending on individual needs.

Subjects in the counseling plus passive music group were encouraged to listen to background music as often as possible, especially when their tinnitus was bothersome. Subjects receiving the counseling plus active music treatment engaged in a 30-minute active listening session twice a day. During these listening sessions, they focused their full attention on the music by using active listening techniques, such as singing along with the music (vocally or cognitively), tapping their fingers or visualizing the melody. These participants also used relaxation listening at bedtime and



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Increasingly, professionals and patients use music as a therapeutic tool for the management of pain, insomnia and stress. Now it's also being used for managing tinnitus. Low-amplitude background music can interfere with the detection of the tinnitus signal by the brain. In addition, music can be helpful for tinnitus patients to promote relaxation, provide a distraction and help them fall asleep.

Our study examined the effectiveness of combining a tinnitus counseling protocol with music as a sound therapy to treat tinnitus. We were interested in discovering if there would be increased benefit for patients we instructed to interact with music in some way versus those patients who only listened to background music, but did not respond to it.

We randomly assigned patients to one of three groups: 1) counseling only, 2) counseling plus passive music and 3) counseling plus active music. Counseling consisted of an early form of Tinnitus Activities Treatment (Tyler et al., 2006), which includes sections

played background music as much as possible during the day.

Findings

We administered the Tinnitus Handicap Questionnaire (Kuk, Tyler, Russell and Jordan, 1990) to each patient before treatment began and one year after. The results demonstrated that all three approaches – counseling only, counseling plus passive music and counseling plus active music treatment – could effectively help patients.

The average handicap scores decreased from approximately 50 percent to 35 percent, but there were no significant differences among groups. Depending on the group, 65 percent to 85 percent of the subjects reported a decrease in their handicap score. Subjects assigned to the music treatment groups reported experiences such as, "I benefited from concentrating on positive stimuli [rather than noise]," and "[The music] helped me focus my attention elsewhere and not on the tinnitus."

Conclusions

We conclude from our observations that the combination of Tinnitus Activities Treatment and music as a sound therapy can be effective in reducing the problems associated with tinnitus. We believe that individual differences are highly important in sound therapy. Many patients clearly prefer music compared to noise. Passive listening is easy to implement, and patients who substantially benefit from it can work it into many aspects of their daily lives.

Active listening requires specified time commitments, but can be very effective at diverting attention away from tinnitus symptoms. We identified several categories and specific examples of music that many patients found particularly helpful. We now share these with others for daytime listening and to help them fall asleep at night. One example is the music of Janalea Hoffman, which we believe is particularly helpful for getting to sleep. She has produced several CDs, including Musical Biofeedback II and Deep Daydreams, that our patients have used for both daytime and sleep listening.

Another benefit of the study is the large database we have established, which includes several measurements of the tinnitus patients who participated in the music trial. This will allow us to examine the relationship between different questionnaires and different measures of tinnitus severity (Tyler, et al., 2006). Such databases enable us to search for similarities and differences among tinnitus patients, and to provide insights into new directions in our search for a cure. ☺☺☺

References

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Kuk FK, Tyler RS, Russell D, Jordan H. 1990. The psychometric properties of a tinnitus handicap questionnaire. *Ear and Hear.* 11(6):434-442.

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improved tolerance of previously uncomfortable noise levels (volume). We have also observed this trend in our clinic. I have been told that Neuromonics plans to implement a U.S. Clinical Study Registry beginning in 2007 to track outcome measures for patients treated with Neuromonics, validate treatment effectiveness, and evaluate potential treatment candidates.

Patient comments

Severe tinnitus is difficult to treat. Any treatment program will have some patients who do not respond as well as others. In our practice, some tinnitus sufferers have been disappointed. One of my patients reported, "I can't say it has performed as I hoped it would in that the tinnitus is still at times very problematic."

On the other hand, many tinnitus patients have found considerable relief from this treatment. One patient reported, "I was skeptical at first, but like any new or chronic tinnitus sufferer, I was willing to give this treatment a try. Neuromonics gave me some immediate relief and helped mask my noise on bad days, but I – being impatient – wanted it to be the immediate answer to getting my normal life back. This was not the case nor was it ever the promise of Neuromonics or my audiologist. I have kept up the treatments and my life, though not yet perfect, has improved. The noise level has decreased and I think my nights are better. It just seems like my *brain* is calming down."

Another patient reported, "It's very soothing and relaxing. I enjoy using it."

Find information about Neuromonics, those who provide the treatment and the upcoming U.S. Clinical Study Registry at www.neuromonics.com or by calling (866) 606-3876. ☺☺☺

Dr. Meltzer is a board-certified audiologist at North Shore Audio-Vestibular Lab in Highland Park, Ill. She serves on the Board of Governors of the American Board of Audiology (ABA) and has served on several American Tinnitus Association (ATA) committees. Disclaimer: Dr. Meltzer has been a paid lecturer at Neuromonics training seminars.

Neuromonics Tinnitus Treatment is based on more than 14 years of research and the doctoral work of Dr. Paul Davis of Curtin University in Western Australia. Dr. Meltzer emphasizes that it is not a quick fix. It is a two-phase program that takes a *minimum* of six months to achieve the intended results. In her experience, many patients use the treatment longer.