

The Use of Repetitive Audio-Visual Entrainment (AVE) in the Management of Chronic Pain

This study, by Dr. Fred Boersma, shows a chronic pain patient's progress as a result of AVE stimulation. This patient, sustained a back injury several years prior to this study and was taking an average of 35 Extra Strength Tylenol daily before AVE sessions were introduced. He had attempted suicide one month prior to the beginning of the study, but luckily was rescued by a family member. He stated that if the AVE therapy did not help him, he would attempt suicide again. We are pleased to report that he is alive today.

Figure 1 shows ratings on a variety of stress monitors. It shows that his baseline pain level, medication usage, suicidal ideation and anxiety are all high. For month four he stopped all AVE stimulation and began using TENS. This was to determine if it was the AVE that was the acting mechanism in his improvements. As the graphs illustrate, all stress related indicators increased and quality of life measures decreased during this disruption in AVE treatment. At month eight, this patient experienced a marital dispute, which increased his level of stress. However, by the end of the year, most stress monitors showed dramatic improvement and he reduced his intake of Tylenol to two or three pills per day. At the same time, the quality-of-life monitors used in this study measured substantial improvements, as Figure 2 illustrates. The only exceptions were during the fourth month when AVE was replaced with TENS and during the eighth month when he had some marital problems. By the end of the study this patient's quality of life was much improved.

Figure 1

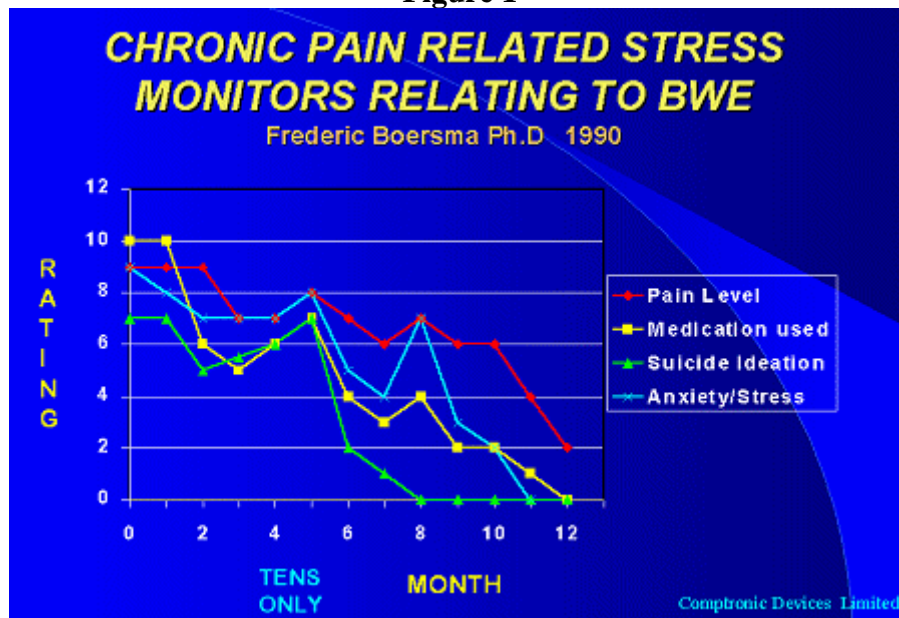
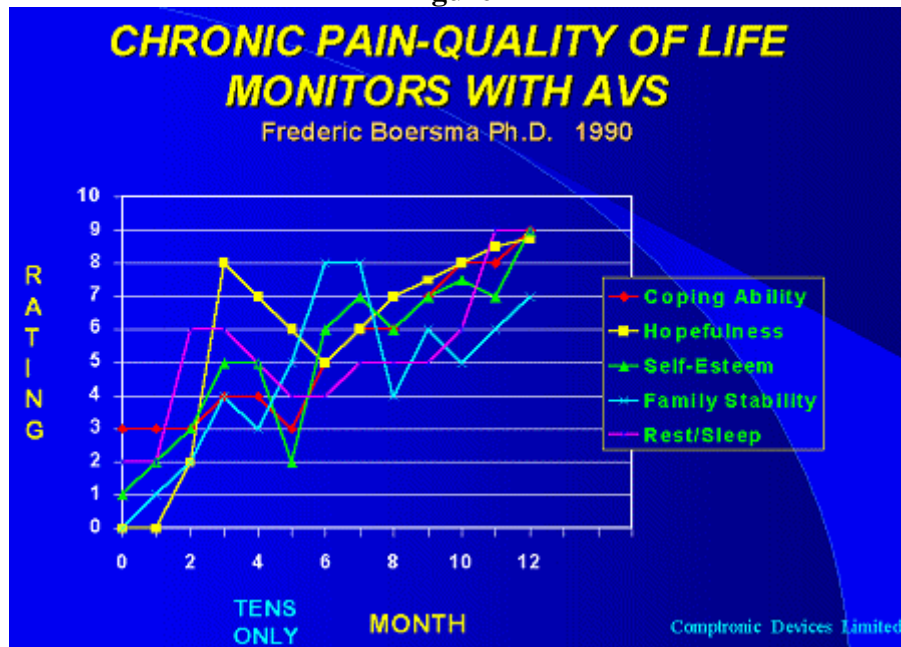


Figure 2



In addition, this participant's pain was reduced dramatically which allowed him to decrease his amount of pain medication. His improvements may have been due to an increase in the production of serotonin and endorphins, which would reduce pain, improve sleep and improve his attitude. Moreover, the meditative qualities of AVE may have helped him reach higher levels of consciousness, dissolve anger and resentments and provide deep muscle relaxation and increase blood flow.