

Summary

This study investigates the claim that light stimulation with a specific frequency between 8 and 12 herz has a positive effect on aspects of alcahol addiction. Twenty one subjects, all participants in a detoxication program of the Amsterdam Jellinek clinic were administered 8 treatments of 25 minutes of intermittent monochromatic light with a frequency of 8 Herz (alfa condition) on a daily basis. Another 21 subjects from the same population received a similar treatment with another frequency (beta- condition: 20 Hz). One control group of 19 persons did not receive any treatment at all. As dependent variable the difference in experienced sleepquality between the first 4 days and the last 4 days of the treatment was used. The sleep quality in all groups decreased throughtout the detoxication program. There were no significant difference between the three treatment conditions. Even if the light treatment conditions were pooled, the decrease in these conditions, although smaller, did not differ significantly from the completely untreated control group which implies that the light treatment on itseld did not elicit a (placebo) effect. However the variance in the alfa condition was significantly larger than in the pooled beta and control condition suggesting that some participants in the alfa treatment improved while for others the treatment had a negative effect ($F(2)=2.268, p<0.05$). Given the small sample size this post hoc finding should be considered as quite preliminary and further research is recommended to explore potential interaction effects between the alfa treatment and other independent variables like treatment with drugs.

short title:

Brainmachines en alcahol detox