

Sportpsychologie Digest

Die Rubrik „Sportpsychologie Digest“ liefert Überblicke über interessante und aktuelle Artikel aus der Sportpsychologie. Einreichungen für diese Rubrik nimmt gern **Mirko Wegner** (mirko.wegner@uni-hamburg.de) als verantwortlicher Herausgeber entgegen.

Using the wingwave® Method of Aural Stimulations Through Music for Stress Reduction and Performance Improvement: An Exploratory Study

Professional athletes often overcome nervousness or “get in the zone,” i. e., focusing or just blocking out background noise, by listening to music before training or competition and during training. Self-chosen music is an often-used tool, since listening to it is familiar to the listener and may also create affirmative feelings through positive memories. Researchers have recently considered using music as aural stimulation in eye movement desensitization and reprocessing (EMDR) therapies.

The alternating bilateral stimulations in EMDR have proved helpful in overcoming traumatic events like post-traumatic stress disorder as well as depression and anxiety (Wilson et al., 2018). Moreover, these stimulations may activate large emotional neural networks (Rousseau et al., 2020). The clients may experience an alleviation of the intensity of negative emotions not only by following the therapist’s finger from left to right with their eyes, but also through tactile (i. e., alternate taps on the left or the right shoulder or knee) and auditory stimulations, which they experience during EMDR interventions (Horst et al., 2017).

The wingwave® method is a coaching method that combines various approaches, with bilateral stimulations to the clients as the primary method, as stated above. It was found effective in various settings (e. g., in sports or at school) and across different age groups (Weiland et al., 2021). There have been efforts to create music that uses such alternating bilateral stimulation and can be listened to on earphones. This special wingwave® music is presumed to activate the listener’s parasympathetic and thinking processes, which can help prepare for upcoming performances and reduce related stress in different fields.

Preliminary approaches to observing mood development through wingwave® music prior to a set of basketball free-throws showed that participants felt more relaxed after listening to the wingwave® music than to classical music (i. e., Vivaldi’s Four Seasons: The Spring) or no music. Furthermore, in a small sample ($n = 29$), listening

to the wingwave® music before shooting free throws tended to lead to a better throwing performance, regardless of differences in the subject’s level of expertise (expert/novice).

In a training context, these results could prove promising. Whether performance improvement and/or improvement concerning the subjective feeling toward one’s own abilities in an actual demanding competitive situation can be positively influenced through wingwave® music has yet to be verified. A study design with novices and experts could lead to conclusions about whether music in general – and which music in particular – may lead to performance and/or self-efficacy improvement.

- Horst, F., Den Oudsten, B., Zijlstra, W., de Jongh, A., Lobbestael, J., & De Vries, J. (2017). Cognitive behavioral therapy vs. eye movement desensitization and reprocessing for treating panic disorder: A randomized controlled trial. *Frontiers in Psychology*, 8, 1409. <https://doi.org/10.3389/fpsyg.2017.01409>
- Rousseau, P.-F., Boukezzi, S., Garcia, R., Chaminade, T., & Khalfa, S. (2020). Cracking the EMDR code: Recruitment of sensory, memory and emotional networks during bilateral alternating auditory stimulation. *Australian & New Zealand Journal of Psychiatry*, 54(8), 818–831. <https://doi.org/10.1177/0004867420913623>
- Weiland, F. P. G., Rathschlag, M., & Klatt, S. (2021). Anxiety reduction and improved concentration in schoolchildren through wingwave® coaching. *Children*, 8(12), 1102. <https://doi.org/10.3390/children8121102>
- Wilson, G., Farrell, D., Barron, I., Hutchins, J., Whybrow, D., & Kiernan, M. D. (2018). The use of eye-movement desensitization reprocessing (EMDR) therapy in treating posttraumatic stress disorder: A systematic narrative review. *Frontiers in Psychology*, 9, 923. <https://doi.org/10.3389/fpsyg.2018.00923>

Frank Weiland, Karsten Schul, and Stefanie Klatt
Institute of Exercise Training and Sport Informatics,
German Sport University Cologne, Germany
fpgweiland@gmail.com
k.schul@dshs-koeln.de
s.klatt@dshs-koeln.de

<https://doi.org/10.1026/1612-5010/a000365>