WHICH TRAINING IS BEST FOR ME?

We always advise to initially use only one of the three trainings at a time. This is to make yourself familiar with the training of choice and to allow for a sufficiently strong impact to establish new, healthier physiological patterns.

Engagement Training is energising, alerting and relaxing and enhances heart engagement when you become active. While it is energising and alerting, it also allows you to be laid back and calm at the same time. It allows you to regulate your emotions whilst fully engaged in social encounters, and it opens your heart to people and situations, helping you to be more perceptive and in tune with your surroundings.

Relaxation Training helps you relax and let go and enhances your ability to recover. It helps you to be more detached and feel safe and protected in challenging circumstances.

Attentiveness Training increases attention, vigilance, brain processing power and performance; it lifts mood, reduces anxiety and stress and enhances confidence.

Each training can be equally important, but this of course depends upon what you personally need most at this moment in time, and how you respond to these trainings over time. Ultimately, we would like you to do all trainings, as they complement each other well.

During the initial introductory phase of approximately 6 weeks, you may be working with only one or two trainings of your choice at a time.

Once you have trained acquired your new skills and targeted benefits over a period of approximately 6 weeks, then you can do the trainings less frequently and for shorter periods of time, for example once or twice a week only.

If you wish to continue practicing every day, then this will be possible and beneficial too, as you will continue to make progress and will experience an increase in performance, as well as improved emotional and physical wellbeing.

Prior to deciding which training you wish to proceed with, perform an Emotional Health Assessment (DASS) and an Autonomic Health Assessment (AHA).

Consider starting with Engagement Training, when the AHA shows one or more of the following:

- MF/LF is on the lower than 0.3
- HF (high frequency) power is too high
- LF (low frequency) power is too low
- LF/HF ratio is too high or too low

Consider starting with Relaxation Training, when the AHA shows one or more of the following:

- LF (low frequency) power is too low
- HF (high frequency) power is too high
- LF/HF is too low (sympathetic dominance)

WHICH TRAINING IS BEST FOR ME?

Consider starting with Attentiveness Training, when the AHA shows one or more of the following:

- LF (low frequency) power is too low
- HF (high frequency) power is too low
- LF/HF is too high or too low

In some cases, it may be helpful to start with two trainings simultaneously, for example when you feel that you would benefit from a more balancing, i.e. simultaneously stimulating and calming effect. Your therapist may also advise you to practice two trainings simultaneously if you, for example, suffer from a high level of anxiety[i] [ii], low moods, anhedonia (lack of enjoyment) and stress, as may be the case with post-traumatic stress disorder[iii] [iv], depression[v] [vi] or anxiety.[vii]

Here we share some observations:

- Engagement Training, Attentiveness Training and Relaxation Training have been successfully used in the treatment of symptoms of anxiety and stress.
- Resonant Frequency Training (Engagement Training) has been successfully evaluated in the treatment of post-traumatic stress disorder.
- Symptoms of agitated depression may respond to combined Engagement and Relaxation Training, or to Engagement Training in its own.
- Symptoms of anxiety with depression and anhedonia may respond to Engagement Training and Attentiveness Training.

The assessments and trainings on this app do not diagnose mental or physical conditions, nor do they offer treatment other than as part of an integrative approach advised by your health professional or therapist. Always consult your health professional and/or therapist for advice, diagnosis and treatment. Do not use the app without the advice of your health professional and/or therapist, should you suffer from mental health and/or significant physical health problems. If in doubt, always take professional advice.

❖ The Effect of Engagement Training (ET)

Breathing at your resonant frequency increases the amplitude of MF power and therefore also the MF/LF ratio, and reduces VLF, LF-MF and HF during training. This can be tracked on the Adaptive Resilience App in real time when in ET mode.

The long-term effects of ET can be monitored in the improvement and normalization of all HRV parameters: HR, SDNN, LF, HF and the HF/LF ratio, as well as an increase of MF/LF ratio, which can be monitored through the Autonomic Health Assessment AHA.

This shows in improved engagement, performance enhancement under pressure, improved emotion regulation and predisposition to more positive emotional states. There may be a reduction of negative stress, anxiety, low mood and anger.

WHICH TRAINING IS BEST FOR ME?

❖ The Effects of Attentiveness Training (AT)

The long-term effects of AT can be seen in the improvement and normalization of all HRV parameters: HR, SDNN, LF, HF, MF/LF and HF/LF, which can be monitored through the Autonomic Health Assessment AHA.

This shows as increased vigilance and acuity of perception; improved problem solving in challenging circumstances; improved mood, engagement and performance under duress. There may be a reduction of stress, low mood and anxiety; improved attention and faster cognitive processing.

❖ The Effects of Relaxation Training (RT)

A long-term effect may be seen as an overall increase in LF power, a lowering of the LF/HF ratio, and an increase of the LF/[HF+LF] ratio, indicating a shift towards increased parasympathetic and reduced sympathetic activity observed over time in the AHA.

This indicates an improved capacity to let go, recover from strain and recuperate.

For people who have a relatively high parasympathetic activity at the outset, relaxation exercise may not be initially indicated or even contra-indicated, and the training should exclusively focus on Engagement Training and Attentiveness Training.

WHICH TRAINING IS BEST FOR ME?

[i] Gian Mauro Manzoni, Francesco Pagnini, Gianluca Castelnuovo and Enrico Molinari. Relaxation training for anxiety: a ten-years systematic review with meta-analysis. BMC Psychiatry. 2008. 8:41. Conclusion: "The results show consistent and significant efficacy of relaxation training in reducing anxiety. This meta-analysis extends the existing literature through facilitation of a better understanding of the variability and clinical significance of anxiety improvement subsequent to relaxation training."

[ii] Ruth Wells, Tim Outhred, James A. J. Heathers, Daniel S. Quintana, Andrew H. Kemp. Matter Over Mind: A Randomised-Controlled Trial of Single-Session Biofeedback Training on Performance Anxiety and Heart Rate Variability in Musicians. PLOS ONE 7(10): e46597. "These findings indicate that a single session of slow breathing, regardless of biofeedback, is sufficient for controlling physiological arousal in anticipation of psychosocial stress associated with music performance and that slow breathing is particularly helpful for musicians with high levels of anxiety. Future research is needed to further examine the effects of HRV BF as a low-cost, non-pharmacological treatment for music performance anxiety."

[iii] Kevin Vaughan, Michael S. Armstrong, Ruth Gold, Nicholas O'Connor, William Jenneke, Nicholas Tarrier. A trial of eye movement desensitization compared to image habituation training and applied muscle relaxation in post-traumatic stress disorder. Journal of Behavior Therapy and Experimental Psychiatry, Volume 25, Issue 4, Pages 283-291.

[iv] Terri L. Zucker, Kristin W. Samuelson, Frederick Muench, Melanie A. Greenberg, Richard N. Gevirtz
The Effects of Respiratory Sinus Arrhythmia Biofeedback on Heart Rate Variability and Posttraumatic Stress Disorder Symptoms: A Pilot Study. ppl Psychophysiol Biofeedback (2009) 34: 135.

[v] Reynolds, W. M., & Coats, K. I. (1986). A comparison of cognitive-behavioral therapy and relaxation training for the treatment of depression in adolescents. *Journal of Consulting and Clinical Psychology, 54*(5), 653-660.

The cognitive-behavioral and relaxation training groups were superior to the wait-list control group in the reduction of depressive symptoms at both posttest and 5-wk follow-up assessments. There was no significant difference between active treatments in their effectiveness for reducing depression. Ss in the cognitive-behavioral and relaxation training conditions went from moderate levels of depression at pretest to nondepressed levels at posttest, and they maintained these levels at follow-up. Improvements in anxiety and academic self-concept were also demonstrated by the active treatments. Findings demonstrate that these short-term group-administered therapies are effective in significantly decreasing depression in adolescents.

[vi] George E. Murphy, Robert M. Carney, Mary Ann Knesevich, Richard D. Wetzel, Pamela Whitworth

Cognitive Behavior Therapy, Relaxation Training, and Tricyclic Antidepressant Medication in the Treatment of Depression. Psychological Reports. Volume: 77 issue: 2, page(s): 403-420 Issue published: October 1, 1995

"Outcomes of seven treatment trials comparing cognitive behavioral therapy to treatment with tricyclic antidepressant medication in major depressive disorder have been quite similar to one another. This led us to question whether treatment outcome in time-limited studies reflected a unique effect of cognitive behavioral therapy … For both cognitive behavioral therapy and relaxation training, outcome of depression was superior to that of tricyclic antidepressant medication by endpoint analysis."

[vii] P. Cuijpers, Ph.D., Professor of Clinical Psychology, Department of Clinical Psychology, VU University Amsterdam, Van der Boechorststraat 1, 1081 BT Amsterdam, The Netherlands. Is guided self-help as effective as face-to-face psychotherapy for depression and anxiety disorders? A systematic review and meta-analysis of comparative outcome studies. Psychological Medicine, Volume 40, Issue 12, December 2012, pp. 1943-1957

"It seems safe to conclude that guided self-help and face-to-face treatments can have comparable effects. It is time to start thinking about implementation in routine care."