

Worldwide Stress Relief in 5 Days: An Investigation of Tapping, Havening, and Breathing

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Abstract

This study investigated the effectiveness of three stress reduction techniques—tapping, breathing, and havening—delivered via animated videos. Participants were recruited through community advertising and self-selected into the study, choosing their preferred technique. The final sample ($n = 117$) was predominantly female (86%), with ages ranging from 27 to 80 years ($M = 50.90$, $SD = 12.80$). The interventions were brief, lasting five minutes, and participants were followed up daily for five days. Results indicated a significant improvement in wellbeing over time, with higher scores at the 5-day follow-up compared to baseline. However, the type of technique did not significantly

influence wellbeing. The havening and tapping groups reported higher happiness levels (+1.6% and +6.6%) compared to the breathing group after 5 days, and there was a significant reduction in posttraumatic stress disorder (PTSD) symptoms, particularly in the tapping group (−22.8%). Limitations and future research are discussed. However, the findings suggest that brief body-based stress reduction techniques can effectively enhance mental health and wellbeing.

Keywords: tapping, havening, breathing, stress, wellbeing, mental health, brief intervention, posttraumatic stress, PTSD

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Research indicates that individuals exposed to extreme stress and trauma may have a more intense physiological response to milder stressors. This sensitization process is well-documented in early life stress research, which demonstrates that adverse childhood experiences can result in prolonged dysregulation of stress systems and heightened reactivity to subsequent stressors throughout the lifespan (Agorastos et al., 2018; Smith & Pollak, 2020). Each time such an individual is re-stressed, the sensitivity of the response is increased, as is the individual's vulnerability to anxiety and depression (Scaer, 2005). This raises the hypothesis that simple methods of downregulation of the nervous system could be valuable when used routinely to “unprime” a sensitized nervous system. Neurobiological research demonstrates that stress-induced changes in synaptic connectivity, particularly in regions like

the amygdala, can persist and potentially contribute to heightened stress reactivity over time (Yasmin et al., 2016). This supports the hypothesis that simple methods of downregulation and self-soothing could play an important role in lessening the cumulative potential for progressively more intense stress responses, potentially helping to “unprime” a sensitized nervous system before maladaptive patterns become entrenched. A meta-analysis of 77 studies about risk factors for post-traumatic stress disorder (PTSD) has also found that factors during or after trauma (such as trauma severity, lack of social support, and additional life stressors) had a stronger influence than pre-trauma factors (Brewin et al., 2000).

A fourth wave of psychological interventions has emerged in recent years with components widely focusing on mindfulness and somatic (body-based) therapeutic techniques (Church et al., 2022a). The mindfulness wave has brought us tools to inquire into our own thoughts and calm the busy mind, and has also highlighted the global need for stress relief. Somatic approaches appear highly effective with trauma and stress-associated symptoms because these are often experienced very physically in the body. These body-based approaches have theoretical foundations in the neurobiology of trauma and the understanding of how trauma disturbs functioning of the automatic nervous system (ANS). The primary aim of somatic therapies is to return homeostatic balance to the nervous system and release tension that is held in the body from traumatic experiences (Khan, 2016). These interventions acknowledge the bottom-up approach when working with stressed and traumatized individuals, contra to traditional talk therapies, which instead rely on cognitive processing abilities. Such abilities may be impaired when the emotional structures in the brain are highly activated (Ogden et al., 2006). Addressing PTSD and other trauma-related difficulties through somatic-based approaches is displaying efficacy.

During the COVID-19 pandemic, the unprecedented levels of stress and uncertainty significantly impacted people’s mental and physical health (COVID-19 Mental Disorders Collaborators, 2021). Somatic techniques such as breathwork, progressive muscle relaxation, and mindful movement became essential tools for regulating the ANS. These practices helped individuals manage

heightened anxiety, reduce physical tension, and maintain emotional balance (Tsachor & Shafir, 2017). The pandemic’s prolonged isolation and constant exposure to distressing news heightened the body’s stress response, often leading to chronic activation of the sympathetic nervous system (Manchia et al., 2022). By incorporating somatic techniques, individuals may activate the parasympathetic nervous system, promoting relaxation and future resilience.

This study aimed to offer three somatic approaches easily accessible on a website designed to assist people who have recently experienced a highly stressful or distressing event. This study was offered throughout the pandemic (2020–2022) at zero cost to consumers. The first of the three techniques provided was the Trauma Tapping Technique (TTT), a combination of Thought Field Therapy (TFT; which involves tapping on acupoints on the body and focusing on specific sequences of acupoints for different emotional problems) and Emotional Freedom Techniques (EFT; which combines elements of established methods such as exposure and cognitive therapies with somatic stimulation in the form of acupressure; Church et al., 2022b). TTT combines elements of both TFT and EFT and has been adapted through clinical experience for a specific trauma focus.

The second technique was Havening (Ruden, 2019). As part of its protocol, Havening uses the sensory input of gentle human touch to reduce stress, involving simple self-applied touch of the hands, upper arms, and face. Ruden (2019) hypothesizes that traumatic memories can be disrupted through the generation of delta waves via gentle touch, which leads to the depotentiation of AMPA receptors in the amygdala. This process may then help alleviate the emotional and physiological responses associated with traumatic memories.

The third technique was guided breathing. Traditionally part of different yoga traditions and now incorporated in many relaxation programs, breathing relaxation techniques are shown to help address the physiological manifestations of prolonged stress, including PTSD (Scotland-Coogan & Davis, 2016).

The aim of the present study was to investigate the effects of these three somatic techniques (tapping, breathing, havening) on wellbeing, happiness, and PTSD symptoms during a 5-day study. It was anticipated all three techniques would result in a decrease of stress responses and

be similar in outcomes. This may then suggest that somatic approaches share a common mechanism of regulating the autonomic nervous system.

Method

Participants

Participants were recruited via community advertising. Inclusion criteria were age 18 years and above, English speaking with access to the internet, all genders, with stress symptoms. Prior to data cleaning, the study consisted of 905 entries. Due to duplicate entries, 210 cases were removed. An additional 572 participants were removed because they had no follow-up data, and an additional participant was removed for lacking baseline measures. Four participants were removed as they were assigned multiple techniques, and another was removed as they were assigned no technique. The final sample used to conduct ANOVAs consisted of 117 data entries.

G*Power Analysis was used to determine that the sample size required to determine a medium effect size ($f = 0.25$), with 80% power and an α -value of 0.05, in a repeated-measures, between factors ANOVA was $N = 108$. The current sample satisfied this requirement.

A total of 117 participants (86% females) were included in the analysis, with ages ranging between 27 and 80 years ($M = 50.90$, $SD = 12.80$).

The participants self-selected the intervention they would receive. Approximately 68% of the sample was assigned to the tapping technique, whereas only 13% participated in the breathing technique. All descriptives can be found in Table 1.

Measures

The Warwick–Edinburgh Mental Well-Being Scale (WEMWBS; Tennant et al., 2007). This scale assesses a wide conception of wellbeing, including affective-emotional aspects, cognitive-evaluative dimensions, and psychological functioning, in a form that is short enough to be used in population-level surveys. It has been shown to be “responsive to change” in clinical populations undergoing psychotherapy at both group and individual levels. It uses a 5-point Likert scale (none of the time, rarely, some of the time, often, all of the time), giving a minimum score of 7 and maximum score of 35. All items are scored positively. The overall score for the WEMWBS is calculated by totalling the scores for each item, with equal weights. A higher WEMWBS score therefore indicates a higher level of mental wellbeing.

The Brief PCL (Lang & Stein, 2005). The PTSD Checklist–Civilian version (PCL-C; Weathers, et al., 1993) has been reduced to a brief screening tool of two items from the full checklist, asking the individual to rate on a scale of 1 (not at all)

Table 1. *Sample Characteristics*

Baseline Characteristic	n	%
Gender		
Male	15	13.4
Female	96	85.7
Other	1	0.9
Technique		
Tapping	79	68.1
Breathing	15	12.9
Havening	22	19.0
Nature of stress		
Worry about the future	14	12.3
Ongoing	88	77.2
Over	12	10.5
	<i>M</i>	<i>SD</i>
Age (years)	50.9	12.80

Note: $N = 117$.

to 5 (extremely) how much each problem has bothered them in the past month: “Repeated, disturbing memories, thoughts, or images of a stressful experience” and “Feeling very upset when something reminded you of a stressful experience.” This version has adequate psychometric properties for screening purposes of probable PTSD (Tiet et al., 2013) and high sensitivity, providing a reliable indicator of clinically significant change (Lang et al., 2012). Possible scores range from 2 to 10, with higher scores indicating possible clinical levels of psychological distress.

Brief Happiness measure (Abdel-Khalek, 2006). A single item querying happiness levels was used (Do you feel happy in general?) and participants answered on an 11-point scale (0–10). This has correlated with the Oxford Happiness Inventory (Abdel-Khalek, 2006; Argyle et al., 1995; Hills & Argyle, 2002) and the Satisfaction with Life Scale (Diener et al., 1985; Pavot & Diener, 1993), both highly significant and positive, denoting good concurrent validity. Moreover, the single item had a good convergent validity because it was highly and positively correlated with optimism, hope, self-esteem, positive affect, extraversion, and self-ratings of both physical and mental health. Furthermore, the divergent validity of the single item has been adequately demonstrated through its significant and negative correlations with anxiety, pessimism, negative affect, and insomnia. It was concluded that measuring happiness by a single item is reliable, valid, and viable in community surveys as well as in cross-cultural comparisons (Abdel-Khalek, 2006).

Design and Procedure

Following ethics approval by the Bond University Human Research Ethics Committee, a dedicated website was created for the study (worldwidestressrelief.org). There was the option to be involved in the research project or simply utilize the stress reduction techniques for personal use. All participants self-selected to the website, and if they chose to participate in the research, they were directed to the initial survey and consent. They chose the stress reduction technique to use and were not randomly allocated. The survey was embedded on the website and took 5–10 minutes to complete. The stress reduction interventions lasted five minutes only and were available via video format on the web page. Participants were able to

rewind and complete the stress reduction video as many times as they wished. At the completion of the first video, the participant was then emailed every day for 5 consecutive days, to continue participating in the stress-reduction videos.

Stress Reduction Techniques

- 1. The Trauma Tapping Technique** (TTT; Stapleton et al., 2018). TTT is a combination of Thought Field Therapy (which involves tapping on acupoints on the body and focusing on specific sequences of acupoints for different emotional problems) and Emotional Freedom Techniques (EFT; which combines elements of established methods such as exposure and cognitive therapies with somatic stimulation in the form of acupressure). The tapping technique was used in combination with a breathing exercise derived from the tactical breathing or box breathing used in American military and police trainings and breathing techniques from mindfulness and yoga. TTT has been designed specifically to keep spoken interventions at a minimum, which makes it different from EFT and simple to remember. TTT involved participants tapping with two fingers on 14 acupoints on the upper body.
- 2. The Havening Techniques.** As part of its protocol, Self-Havening uses the sensory input of human touch to reduce stress, involving a simple, gentle touch self-applied to the hands, upper arms, and face. Participants stroke their own shoulders with the palms of their hands, as well as rub the palms together. During these activities, they are also instructed to count, breathe, and hold parts of the body. As a psychosensory technique to stimulate oxytocin and facilitate adaptive processing of stressing thoughts, Havening has been shown to reduce distress and increase beta and reduce gamma activity after single sessions (Sumich et al., 2022).
- 3. Breathing Techniques.** The natural act of breathing has been used intuitively as a means of relaxation, has been traditionally part of various yoga traditions, and is now incorporated in many relaxation programs. Relaxation techniques are shown to help

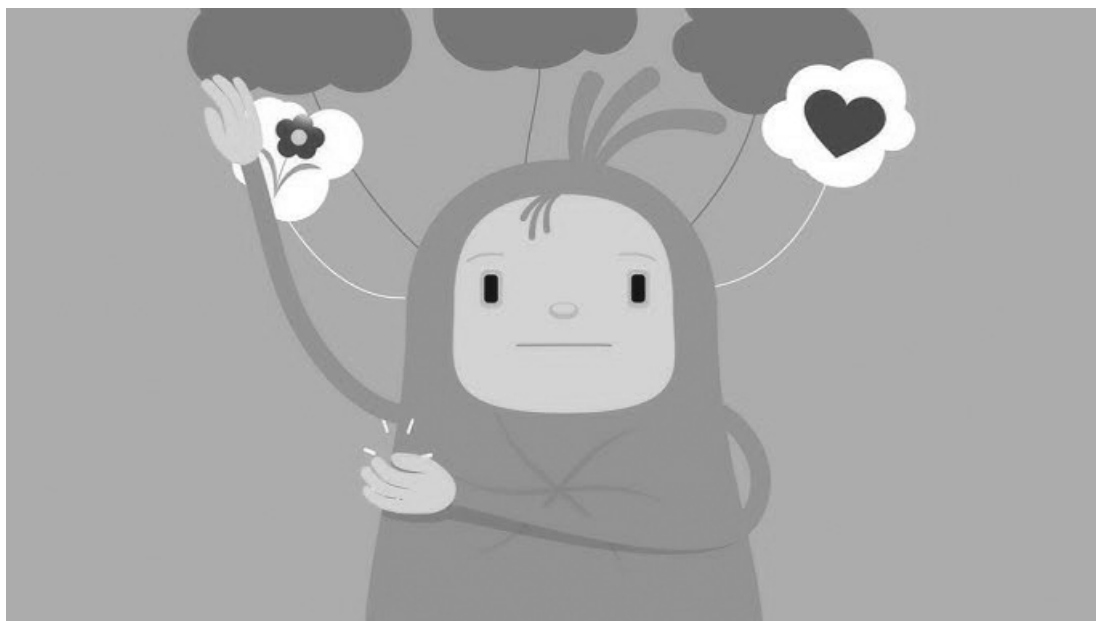


Figure 1. Winky, the animated character (copyright 2021, The Peaceful Heart Network).

address the physiological manifestations of prolonged stress, including PTSD (Scotland-Coogan & Davis, 2016).

Each technique was offered in a video format of less than 5 minutes and was demonstrated by an animated character (see Figure 1). Animation has been found to enhance learning, be an effective teaching tool (Praveen & Srinivasan, 2022) and simplify complex concepts (Coughlan et al., 2021). At the start of each video, participants rated their current stress levels on a subjective units of distress scale (Wolpe, 1969; 0–10, whereby 10 equated to the most stress and 0 represented calm or an absence of stress). Participants were able to rate their level of stress at the end of the video, as well as indicated anything they noticed that was different, in a free text box.

Results

After data cleaning was complete and data integrity checks had been performed, the main analyses were conducted. A series of three 2 (baseline, 5-days) $\times$ 3 (tapping, breathing, havening) mixed factorial ANOVAs were conducted to investigate the extent to which different alternative therapy techniques impact wellbeing, happiness, and PTSD symptoms, respectively. For each ANOVA, all assumptions were satisfied.

The means, standard deviations, and between-group effects for baseline and 5-days wellbeing, happiness, and PTSD symptoms can be found in Table 2. Of note is that the WEMWBS scores were in a low wellbeing category at baseline (the WEMWBS 7-item has a mean score of 23.5 in the general population with a standard deviation of 3.9). This means the current sample was clustered around the cutoff of 19.5 and may suggest probable depression. The WEMWBS has been benchmarked against validated measures of depression and, while not diagnostic, this sample may have possibly suffered depressive symptomatology (Shah et al., 2018, 2021).

Results of the first ANOVA revealed a significant main effect of time on wellbeing $F(1, 48) = 10.99, p = 0.002, \omega^2 = 0.07$, with significantly higher WEMWBS scores at the 5-day follow-up ($M = 21.88, SE = 0.58$) as opposed to baseline ($M = 19.47, SE = 0.58$). There was no significant main effect of technique ($p = 0.506$) or time by technique interaction ($p = 0.462$) on wellbeing. However, each technique resulted in improvement: tapping (+12.5%, havening 6.85%, breathing 6.4%).

Results of the second ANOVA revealed a significant main effect of technique on happiness $F(2, 92) = 4.72, p = 0.001, \omega^2 = 0.03$. Bonferroni post hoc tests revealed significantly higher happiness

Table 2. Means and Standard Deviations for Each Technique Group, Compared by Between-Subjects Analyses

Variable	Tapping Group		Havening Group		Breathing Group		Between-Group Effects		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>	ω^2
WEMWBS (Baseline)	19.14	4.73	20.08	3.80	18.70	5.10	0.69	0.506	–
WEMWBS (5-days)	22.66	3.69	22.00	2.80	20.50	2.42			
Brief Happiness (Baseline)	6.30	2.11	7.13	1.63	5.58	2.81	4.72	0.011	0.03
Brief Happiness (5-days)	6.96	1.62	7.31	1.58	5.58	2.11			
PCL ² (Baseline)	4.27	1.86	2.80	1.61	4.17	1.99	1.843	0.164	–
PCL (5-days)	2.44	1.60	2.67	1.84	3.33	2.15			

Note: PCL = PTSD Checklist; WEMWBS = Warwick-Edinburgh Mental Well-being Scale.

for the havening group compared to the breathing group ($p = 0.009$), but not compared to the tapping group ($p = 0.399$), or between the tapping and breathing group ($p = 0.059$). Happiness was higher after 5 days for havening ($M = 7.34$, $SE = 0.31$; +1.8%) and tapping ($M = 6.75$, $SE = 0.26$; +6.6%), followed by breathing ($M = 5.70$, $SE = 0.33$; 0% change). There was no significant main effect of time ($p = 0.425$), or time by technique interaction ($p = 0.640$) on happiness.

Results of the third ANOVA revealed a significant main effect of time on PTSD symptoms $F(1, 88) = 10.16$, $p = 0.002$, $\omega^2 = 0.036$, with PTSD symptoms significantly lower at the 5-day follow-up ($M = 2.84$, $SE = 0.21$), compared to baseline ($M = 3.77$, $SE = 0.21$). Results also revealed a significant interaction between technique and time $F(2, 88) = 4.27$, $p = 0.019$, $\omega^2 = 0.019$, indicating that the tapping, breathing, and havening groups had a different effect on PTSD symptoms after 5 days. A simple main effects analysis revealed significant differences in PTSD symptoms over time in the tapping group $F(1, 88) = 48.98$, $p < 0.001$ (–22.8%), but not for the breathing $F(1, 88) = 2.01$, $p = 0.184$ (–10.5%), or havening group $F(1, 88) = 0.04$, $p = 0.840$ (–1.6%). There was no significant main effect of technique ($p = 0.164$) on PTSD symptoms.

In summary, while there was no significant main effect of time on happiness overall, descriptive analysis revealed that havening increased by 1.8% and tapping by 6.6%, while breathing showed no change (0%), though this pattern did

not reach statistical significance for the interaction effect. For PTSD symptoms, while there was no significant difference between techniques in overall symptom levels across both time points, the significant interaction indicates that techniques had different effects over time, with only tapping producing significant symptom reduction (–22.8%) compared to nonsignificant changes in the breathing and havening groups.

Discussion

The findings from the first ANOVA highlight a significant improvement in wellbeing over time, as evidenced by higher WEMWBS scores at the 5-day follow-up compared to baseline. This suggests that participants experienced a notable boost in their sense of wellbeing after the intervention period. However, the type of technique used did not significantly influence wellbeing, nor did the interaction between time and technique. This may suggest the three techniques achieved the same outcomes. The WEMWBS scores increased by at least 2 to 3 points from baseline to the 5-day follow-up. According to Shah et al. (2018), an increase of 1 to 3 points on the WEMWBS indicates that the intervention has effectively worked and that the measure can detect clinically meaningful change.

By contrast, the second ANOVA revealed that the technique employed had a significant impact on happiness levels. Specifically, participants in the havening and tapping groups reported significantly higher happiness compared to those

in the breathing group, although no significant differences were found between the havening and tapping groups. This indicates that havening and tapping may be particularly effective in enhancing happiness and can achieve similar outcomes. Tapping techniques have been previously found to result in increases in happiness (Bach et al., 2019; Stapleton et al., 2022).

The third ANOVA results demonstrated a significant reduction in PTSD symptoms over time across all groups, with lower symptoms reported at the 5-day follow-up compared to baseline. However, the significant interaction effect revealed that this overall improvement was primarily driven by substantial reductions in the tapping group. Additionally, there was a significant interaction between technique and time, suggesting that the effectiveness of the techniques varied over time. Specifically, the tapping group showed significant reductions in PTSD symptoms over the 5 days, whereas the breathing and havening groups did not exhibit significant changes. This points to the potential efficacy of tapping in reducing PTSD symptoms over a short period, which has been reported in numerous studies (see Church et al., 2022b for a review).

Limitations and Future Research

The study offers some promising outcomes for somatic techniques for stress, with outcomes being achieved in a brief window of time. However, several limitations are noted. The initial sample size of 905 was significantly reduced to 117 due to data cleaning, which may affect the generalizability of the findings. A significant limitation of this study was that participants self-selected their preferred intervention technique, with 68% choosing tapping, which may have introduced selection bias. This nonrandom assignment means that baseline differences between groups in factors such as motivation, expectancy, or personal characteristics cannot be ruled out as contributors to the observed differential outcomes, particularly the superior PTSD symptom reduction seen in the tapping group. The sample was predominantly female (86%), limiting the applicability of the results to other genders. Additionally, the brief duration of the interventions (5 minutes) and the short follow-up period (5 days) may not capture long-term effects. The reliance on self-report measures could introduce bias, and the baseline

wellbeing scores suggested possible depressive symptoms, which may have influenced the results. These limitations highlight the need for cautious interpretation of the findings and suggest areas for future research.

Future research should address several areas including random assignment to stress reduction techniques or a control condition as well as extending the duration of the interventions. Exploring the effects of these techniques in diverse populations, including those with different baseline levels of wellbeing, would also be valuable. Finally, investigating the potential influence of daily emails and the requirement to engage with the intervention on participants' stress levels and responses could provide insights into optimizing study protocols for future research.

Conclusion

This study explored the effectiveness of three stress reduction techniques—tapping, breathing, and havening—delivered via animated videos. Despite several limitations, the findings provide preliminary insights. The study demonstrated significant improvements in wellbeing and reductions in PTSD symptoms over a short period, particularly for the tapping technique. The innovative use of animated videos and the practical, brief interventions are notable strengths, suggesting that such approaches can be effectively integrated into stress management programs and offered in critical time periods after stressful events. Overall, this study contributes to the growing body of evidence supporting the use of brief, accessible stress reduction techniques to enhance mental health and wellbeing.

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