



Emotional Freedom Techniques for

## Chronic Pain: An Investigation of Self-Paced vs. Live Delivery (including fMRI)

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This presentation outlines an impressive personal improvement tool

however, it is not a substitute for training in psychology or psychotherapy. The author does not assume responsibility for how the viewer chooses to apply the techniques herein. The ideas, procedures, and suggestions in this talk are not intended as a substitute for consultation with your professional health care provider. The information here is not intended to be used to

diagnose, treat, cure or prevent any disease or disorder. If you have any questions about whether or not to use EFT, consult your physician or licensed mental health practitioner.

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## Acknowledgements

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Randomised Clinical Trial:

EFT for Chronic Pain

2020-2022

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# EFFECTS OF EFT ON ADULTS WITH CHRONIC PAIN

(AFTER A 4-HOUR INTENSIVE EFT WORKSHOP)



## THE RESULTS LASTED OVER 6 MONTHS

\* Stagione, F. B., Chabain, H., Sheppard, L., & McIwain, J. (2017). The lived experience of chronic pain and the impact of brief Emotional Freedom Techniques (EFT) group therapy on coping. *Energy Psychology*, 6(2), 16-26. <https://doi.org/10.5798/EFTJ.2016.6.2.P5>



2020 –

was in person and then ..... Online!

### Inclusion criteria:

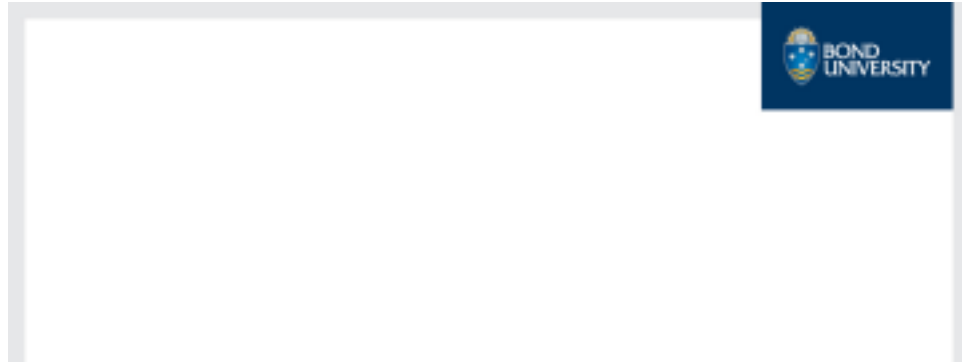
- 18 years + and both genders
- Endorsement of chronic pain for at least 6 months out of the past 12 months, and that has negatively impacted overall functioning and quality of life
- Chronic pain without clear organic aetiology determined by primary care physician or subspecialist (e.g. amyotrophic lateral sclerosis)

### Exclusion criteria:

- not currently engaged in another psychotherapy treatment intervention for chronic pain (e.g. cognitive behavioural therapy)
- not having a major psychiatric disorder (e.g. bipolar disorder) concomitant to symptoms of chronic pain and deemed likely to interfere with treatment delivery of EFT
- not currently in high-intensity substance use disorder treatment program
- not in current or planned cancer treatment with radiation and/or chemotherapy
- no malignant pain caused by cancer pain syndrome

- no referred pain such as back pain caused by pancreatitis
- no co-morbid autoimmune disorders, including rheumatoid arthritis and systemic lupus erythematosus
- no planned major surgical procedure within the next 90 days

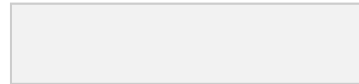
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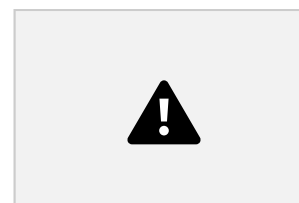
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Measures

- The Brief Pain Inventory
- The Satisfaction With Life Scale
- The Quality-of-Life Scale for Pain



- The Patient Health Questionnaire – depression, anxiety and somatoform modules
- Brief PCL + Brief happiness
- The Adverse Childhood Experiences Measure
- Body Perception Questionnaire / iom2



\*fMRI measurement +  
iom2 vagal tone/efficiency


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Overview of Trial


- 360 people registered and completed the pre survey

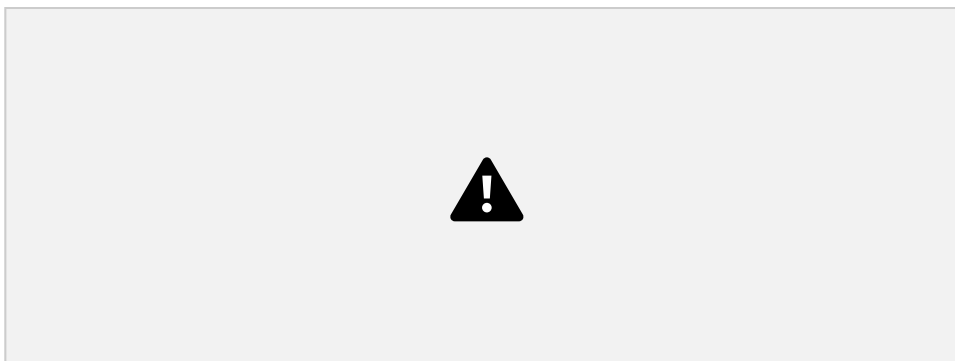
- 168 completed trial

Sample Snapshot at start – clinical meanings

		
Somatic Severity	7.5	Mild
	9.9	Moderate
Anxiety Severity	6.6	Moderate
	3	Low
Satisfaction with Life	20.52	Slightly satisfied

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Average Daily Pain	6.5 / 10	
	6.3	
Interference of Pain	6.6 / 10	
	7.3	Caution for daily maintenance in active



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Results To Date



90 Tx vs WL

6-mth f/up



91 Tx vs WL

Some 6 - mth f/up

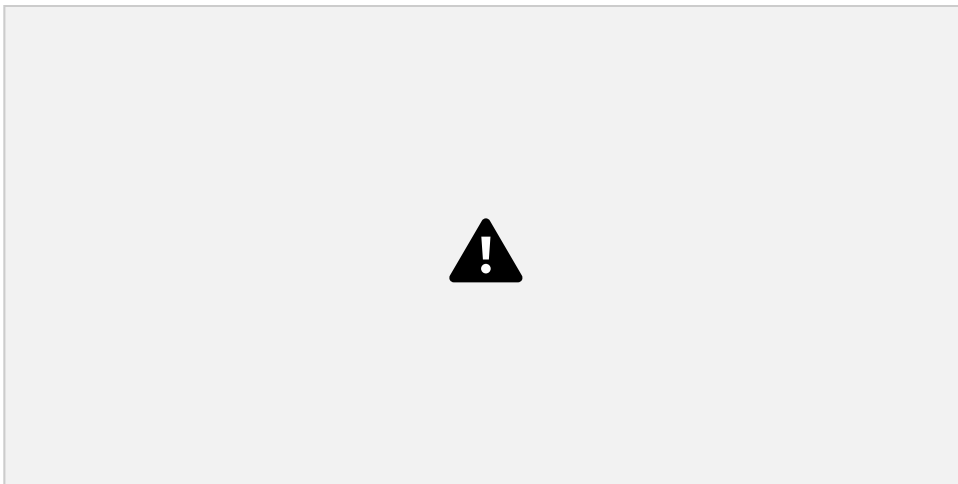


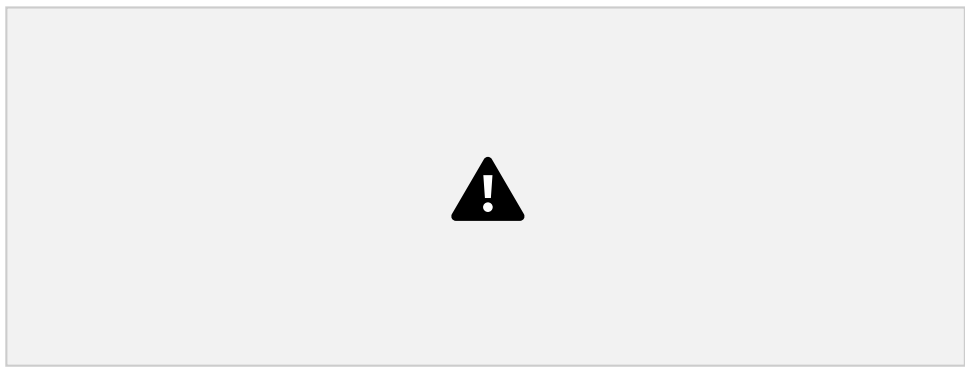
21 Tx only

No f/up yet

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Nature of Pain





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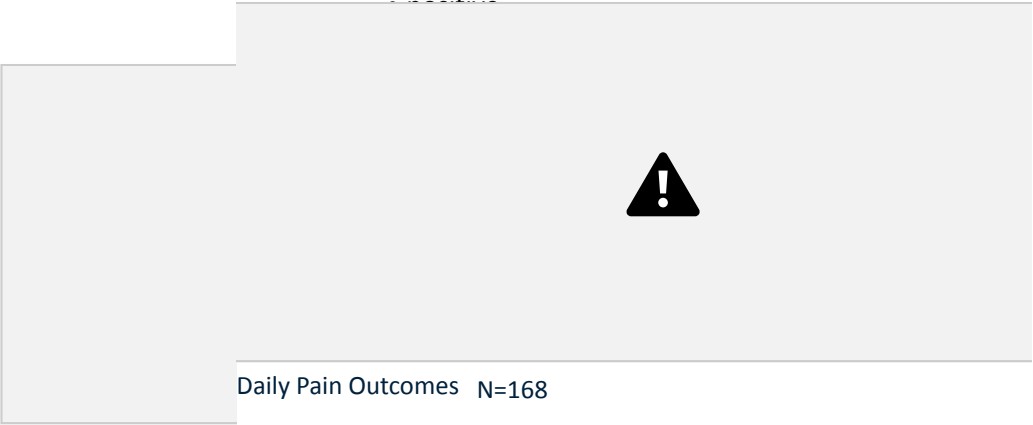


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correlation

Relationships

- positive



Daily Pain Outcomes N=168

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- positive correlation
- negative correlation
- positive correlation

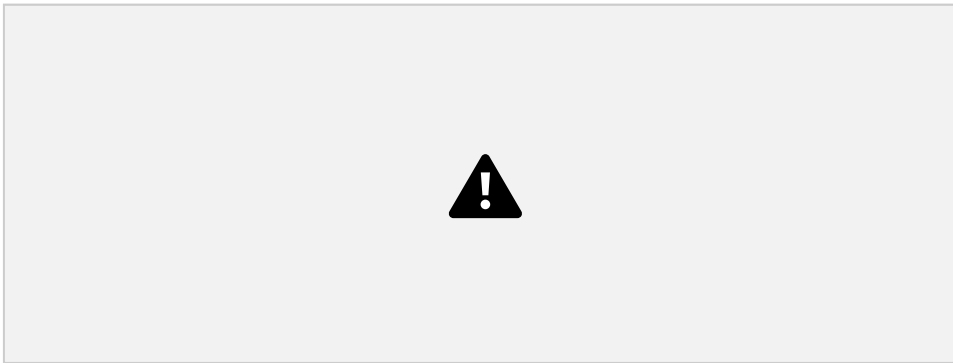
6-month =

Significantly less after EFT program  
p<0.001

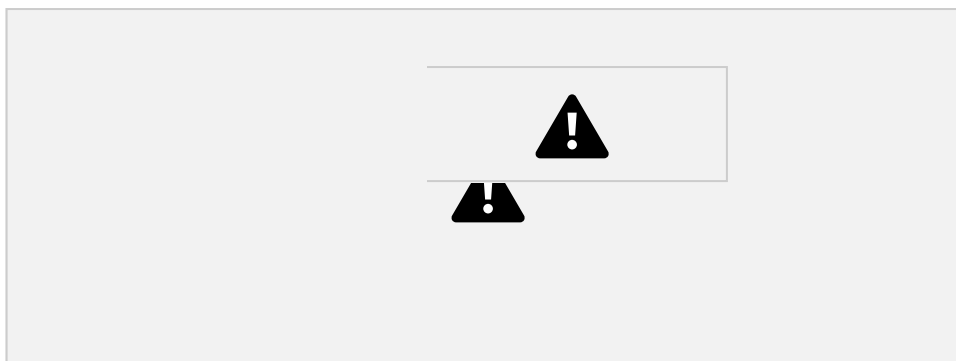
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Significantly less from baseline (pre) to 6-month follow-up  
p<0.001

Pre = 6.67

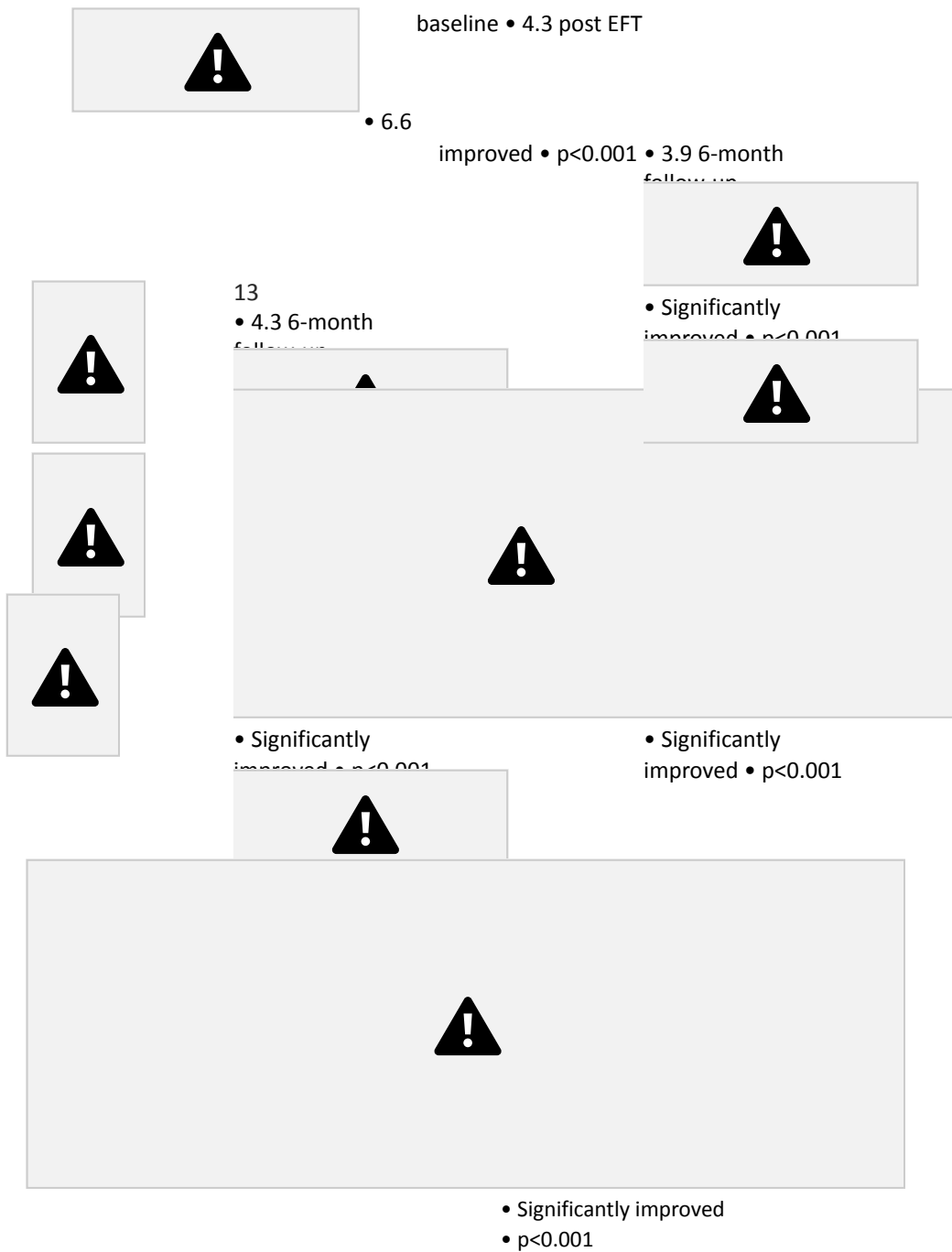


Post = 4.23



Severity and Interference

- 6.4 baseline
- 4.5 post EFT



Quality of Life

- Pre = 7.5
- Post = 8.5
- 6-month = 9\*
- Significantly improved
- p<0.001

\*QOL 9 =  
Work/volunteer/be



*active 8 hours daily. Take part in family life. Outside social activities limited.*

improved • P<0.001

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Psychological = somatic, depression, anxiety  
Depression score became MILD at post and maintained at follow-up

**Depression**

- Significantly improved pre to po

Anxiety score became MILD at post and maintained at follow-up



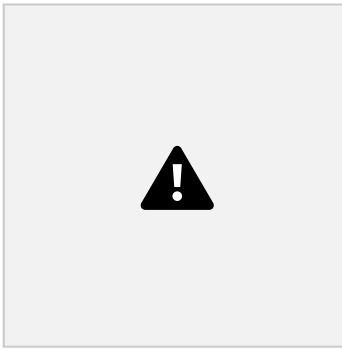
**Somatic**



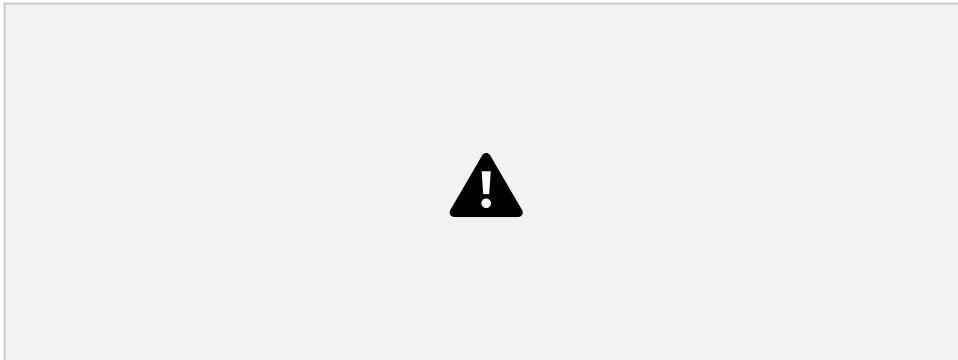
- Significantly improved pre to 6-month

p<0.001

differences  
(was mild to begin)



– no  
significant

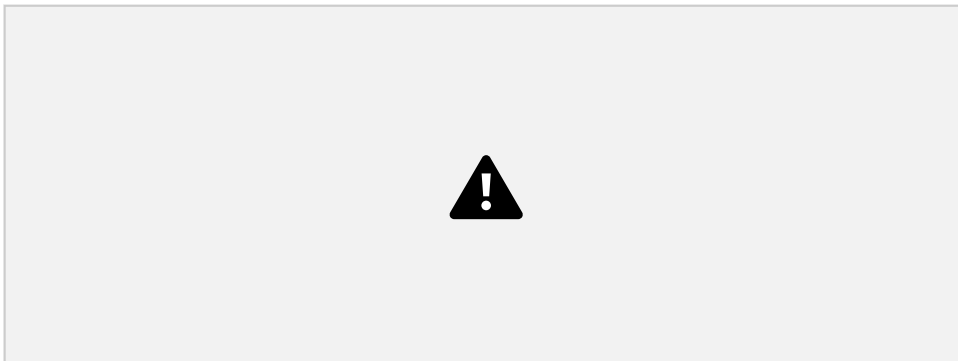


SELF PACED

.Sig decrease in % of people  
who met the diagnosis of SOM,  
DEP, ANX, & PAN after  
treatment ( $p < .001$ )

who met the diagnosis of  
SOM, DEP, ANX, & PAN after  
treatment ( $p < .001$ )

.Sig reduction in pain  
severity post



.Sig improvement in QOL  
post treatment

.Sig reduction in pain  
severity post  
treatment

.No sig different for PCL or  
well-being

FACILITATOR LED

.Sig decrease in % of people

treatment

.No sig different for PCL or  
well-being

• No longer significant in  
improving QoL

Take away – self paced version achieved slightly better outcome (although  
sample size differed) – but also shows EFT delivered this way may be as effective  
as consulting in person



## And Now



Patients underwent a functional MRI scan before and after their 6-week live EFT program – these were 11-15 minutes

They also had their vagal tone and efficiency measured before and after

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The medial frontal cortex has been recognised as one of the main regions modulating pain

- In non pain patients the medial prefrontal cortex is related to the **downregulation** of pain, but in pain patients it does the opposite. So, less influence from the medial prefrontal cortex on the thalamus and posterior cingulate cortex is a good change for them
  - In our 6-week EFT trial, the connectivity between the frontal medial cortex and the thalamus and the posterior cingulate cortex (two regions
- 
- 
-



linked to modulating and catastrophizing pain) was significantly reduced after EFT ( $p < 0.01$ )

**In conjunction with the behavioral measures these scans support the positive effect of EFT in reducing pain and its impacts**

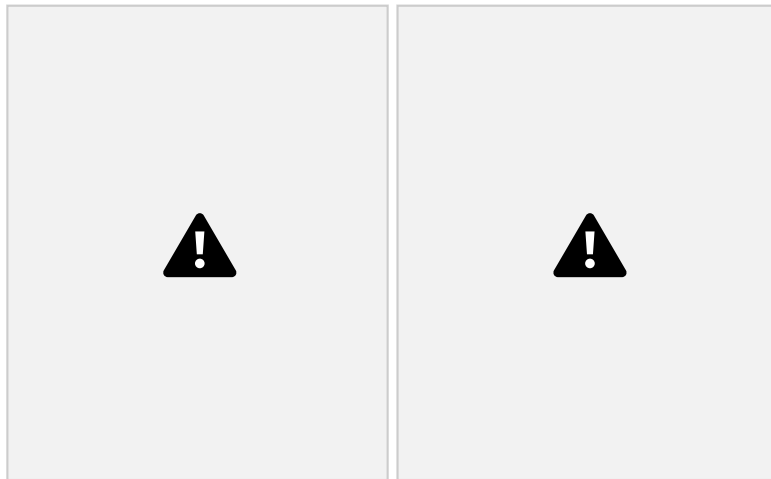
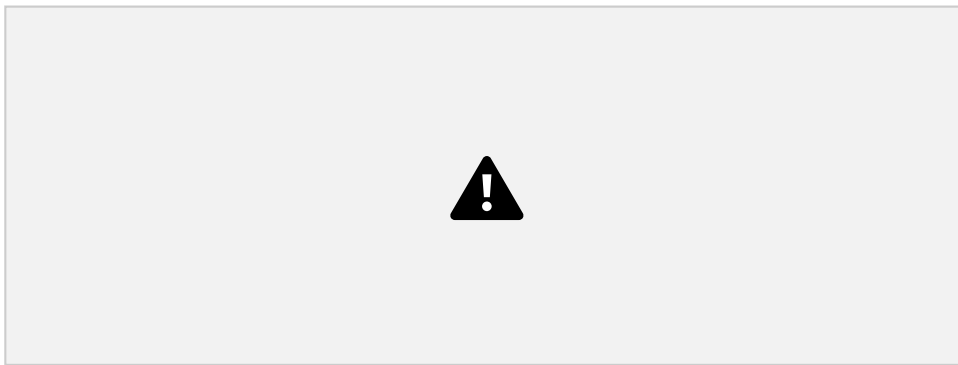
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Medial

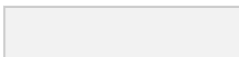
Area

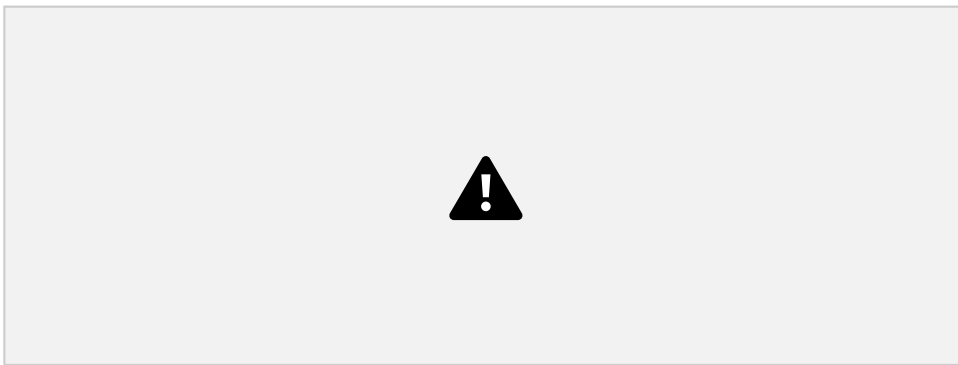
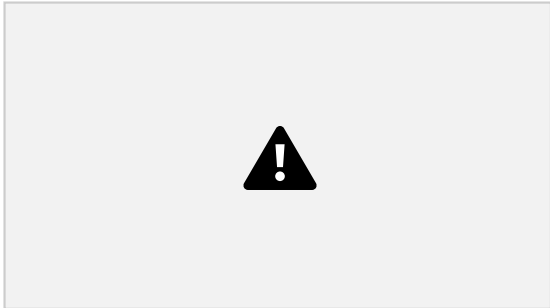
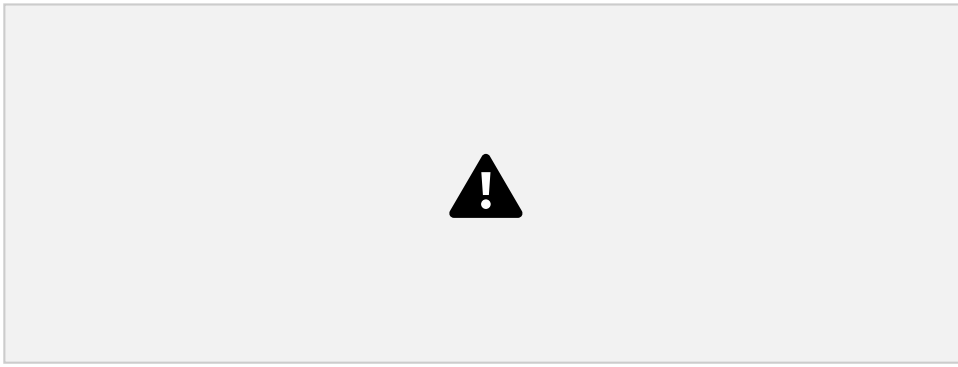


Before EFT After EFT



**Blue colour means less connectivity (originating from the medial frontal gyrus) to those regions after EFT**





EFT and Polyvagal Theory

- Can EFT improve vagal tone and thus efficiency? Is this why EFT lasts over time?





ANS and Pain and Vagal Efficiency

- The polyvagal theory is an explanatory model of ANS evolution and its relation to the human brain-body connection
- The vagus is the largest nerve that travels throughout the body and about 80% of its fibers are sensory - the portal to the brain from the periphery, and it tells our brain the state of our body
- *Dampened parasympathetic activity is associated with depression, anxiety,*



*and PTSD disorders - the most direct evidence supporting a causal association between the ANS and mental health come from vagal nerve stimulation*

- Pain signal regulation is a normal part of a nervous system defence response - may be compromised in chronic-long term states of threat response (pain)

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Preliminary Data

• A new measure termed vagal efficiency (VE) was recently developed, which accounts for a nonconstant relationship between respiratory sinus arrhythmia (RSA) and heart rate - measured by the slope of the linear regression between short epoch estimates of heart rate and RSA

- *Aim = does EFT improve vagal efficiency? (higher is better)*
- From local sample, 11 had useable data from iom2

• Age was *not related* to vagal efficiency



- Less pain at start (5/10) *was related to improved vagal efficiency* after EFT (p<0.05)
- More pain (>5/10) not related
- General improvement of vagal efficiency after EFT was *in the right direction* p<0.055 (including across different positions – supine, sit, stand)
- Larger sample needed but it APPEARS that EFT may impact VE
- May account for the LTM accounts we hear –  
*“I forgot I was in your trial as I don’t have any pain now”*

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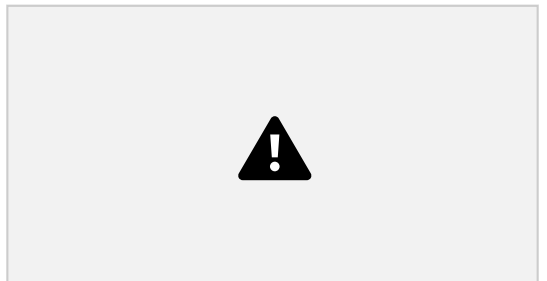
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helpful. It paved way to better results for the tapping that followed after. Thank you for that.”

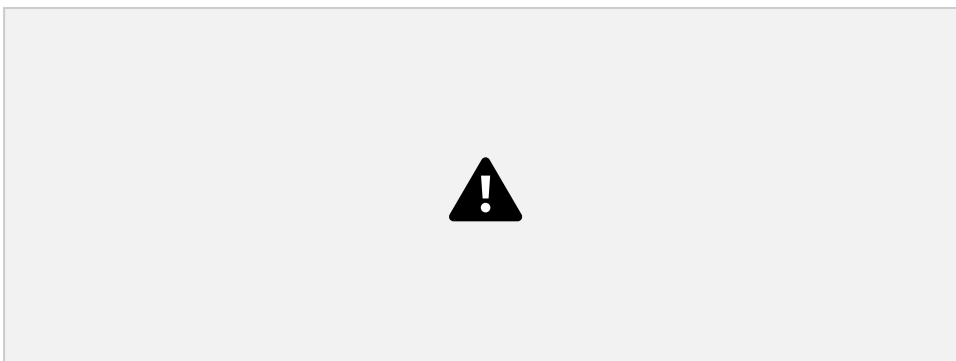


“Tapping on negative statements - I've always only said positive phrases out loud so this didn't feel right but I get that it's important to give 'it' a name first.”

Our Current Research



“The breakout sessions and - In the small breakout group, we were able to dig deeper and clarify some of the language around historical memories and how it is applicable to our experiences today. Thank you to



How

What did the Participants Think? all. Again, I had a night without pain. amazing.)”

useful was the EFT information and skills you learned this week to your chronic pain? 4.41/5.00

**What aspects of this week's session were most useful or valuable?**

“Tapping on doubt was really

How confident do you feel right now in using the information and skills covered with your pain levels? 4.07/5.00



- NIH Grant to extend this EFT Chronic Pain Trial with VE and fMRI
- Collaboration with ACEP to investigate a range of Energy Psychology techniques across sessions – see



<https://ep-research.com/>

- Focus Band – EGG activity and EFT
- Future OCD / Trichotillomania study with Joan Kaylor •  
Future EFT for Eyesight replication study with Carol Look

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Australian EFT research –  
<https://research.bond.edu.au/en/persons/peta-stapleton>

Website – [www.petastapleton.com](http://www.petastapleton.com)

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