Tapping for success: A pilot study to explore if Emotional Freedom Techniques (EFT) can reduce anxiety and enhance academic performance in University students

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Learning itself is an intrinsically emotional business

(Claxton, 1999, p15)

Abstract

Emotional Freedom Technique (EFT), also known as tapping, is an emerging psychological intervention that has been used to treat a variety of conditions, including exam stress and public speaking anxiety.

Participants were a convenience sample of 52 3rd year Foundation Degree level students undertaking a Research Methods Module. The module included an assessed presentation, which was known to generate anxiety among students. The students were given a 15 minute assignment workshop. They then received a 15 minute lecture introducing EFT and were guided through one round of EFT focusing on their anxiety of public speaking. The students were assessed using the Subjective Units of Distress (SUDs) and the Hospital Anxiety and Depression Scale (HADS) pre and post EFT. The students were instructed that they could continue to use EFT at any time to reduce their anxiety regarding their assessed presentation. Immediately following their presentation, the students were invited to take part in a brief face-to-face interview to identify those who used EFT to explore their use of and feelings about EFT and to identify those who had chosen not to use EFT and explore their reasons for not choosing to use it.

Forty Six of the total sample of 52 students (88%) participated in the research. There was a significant reduction in SUDS ($p<0.001$), HAD ($p = 0.003$) and HAD Anxiety Subscale ($p<0.001$). There was no difference in the HAD Depression Subscale ($p=0.67$). The qualitative data were analysed using a framework approach which revealed the following three themes: helpfulness of EFT in reducing anxiety and staying calm and focussed; Using other complementary therapy skills; and their reasons for not using EFT.
Despite the limitations of the study, the results suggest that EFT may be a useful addition to curricula for courses that include oral presentations and that using EFT to reduce presentation anxiety may enhance academic performance.

Introduction

A range of pedagogic, medical and psychological strategies have been used to enhance academic performance. Strategies include peer tutoring (Lidren & Meier, 1991), assistive technology (Goldius & Gotesman, 2010; Parent & Del Rio-Parent, 2008), identifying student achievement goals, student self efficacy and reducing class size (Fonollar et al., 2007). Some students with a diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) have used ADHD drugs to enhance academic performance, whereas others without a diagnosis of ADHD have taken these drugs illegally to enhance their performance (Murray et al, 2011).

Fear of public speaking is the single most common fear and up to 75% of people suffer from it (Furmark, 2002; Pollard & Henderson, 1998). Many students report high level of public speaking anxiety levels around assessed presentations. While a slightly increased level of anxiety may enhance performance, too much anxiety can have a detrimental effect (Cherry, 2010).

Emotional Freedom Technique (EFT; Craig, 2011) is a gentle psychological intervention that can be easily taught and self-administered (Karatzias et al. 2011). Subjects gently tap with their fingertips on acupressure points on the head, torso and hands and relate this to the voicing of specific statements (Craig, 2011). Recent systematic reviews reveal that EFT is effective for a variety of psychological disorders including reducing presentation anxiety and test-taking anxiety and enhancing athletic performance (Boath et al., 2012a; Feinstein, 2012; Feinstein, 2008).

The emerging literature suggests that EFT is a feasible treatment for presentation and test anxiety in students. For example, Boath and colleagues (2012b) found that EFT significantly reduced presentation anxiety in University students. Sezgin and Ozgin (2009) investigated the effect of EFT and Progressive Muscular Relaxation (PMR) on test anxiety in Turkish students undertaking a University entrance exam and found that students scored higher on examinations post EFT. Benor and colleagues (2006) treated test anxiety in Canadian University students with EFT and found the EFT enhanced their performance and that these students also successfully transferred their EFT skills to other stressful areas of their lives. Schoninger (2004) used Thought Field Therapy (TFT; Callahan & Trubo, 2001 ), the precursor of EFT, to treat public speaking anxiety and found a significant reduction in anxiety, shyness, confusion, and physiological factors as well as increased poise and positive anticipation following one hour of TFT. In Australia, Jones and colleagues (2011) reported significant reductions in public speaking anxiety in a group of University students and lecturing staff randomised to receive EFT and concluded that EFT was a quick and effective treatment for public speaking anxiety.

However, to date none of the studies of presentation anxiety has linked the reduction in anxiety levels with enhancing academic performance and so this pilot study aimed to assess the impact on EFT on a cohort of students’ public speaking anxiety and to assess whether EFT had an impact on their grades.
Methodology

A convenience sample of 3rd year students undertaking a Foundation Degree in complementary therapies were invited to participate in the project. Once written informed consent was obtained, the students were all given a 15 minute assignment lecture outlining the requirements for their assessed presentation. They were then asked to rate their anxiety levels using Subjective Units of Distress (SUDs; Wolpe, 1958) and the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). Higher scores on these scales mean higher levels of distress, anxiety and depression. Next, they received a 15 minute lecture introducing EFT, the theory behind it and the tapping points by TS who is a fully qualified and highly experienced Advanced EFT practitioner and trainer. Following this, they were guided though one round of EFT, focusing on their fear of public speaking and being assessed, by TS. The EFT protocol used followed the ‘basic recipe’ (Craig, 2011) and the one round included tapping on 12 acupressure points on the head, torso and hand, while tuning in to their anxiety about their presentation and being assessed. Following the introduction, where the students familiarised themselves with the tapping points, they were then guided through one full round of EFT, where they focussed on their own anxiety. The students were asked to complete the SUDS and the HADS scales immediately following this. This was approximately 30 minutes since they completed the previous outcome measures.

The students were instructed that they could continue to use EFT on themselves any time they wished during the intervening 8 weeks between the EFT training session and their assessed presentation. A reminder email was sent out one week prior to their presentation, with an attachment outlining the tapping points and reminding them about using EFT if they desired.

Immediately after giving their presentation, the students were invited to take part in a brief face to face interview in which they were asked if they had used EFT prior to their presentation, how effective they felt it had been, if they had used anything else to reduce their anxiety and if they would use EFT in future. Responses were captured verbatim in writing.

Data analysis

The quantitative data were entered into SPSS. Data were screened for normality using the Shapiro-Wilk test. SUDs and total HAD were found to be normal and were analysed using the paired t-test. Anxiety and depression data were found to be non-normally distributed and therefore the non-parametric equivalent, the Wilcoxon Signed Rank Test was employed. Before and after mean scores (SUDS and total HADS) were compared using paired t-tests and the anxiety and depression subscale were compared using the Wilcoxon Signed Rank Test. Where P-values were <0.05, the differences were considered statistically significant.

The qualitative data was analysed using thematic framework analysis to identify emergent patterns and themes (Ritchie and Spencer, 1994). Interview transcripts were read independently by LB and AC who devised an index of key concepts and themes drawing on a priori issues linked to the study objectives as well as issues raised by the students. LB and AC agreed on a final framework and subsequently data from the transcripts were applied systematically to the framework followed by mapping and interpretation.
Ethical approval

Ethical approval was obtained from Staffordshire University Research Ethics Committee.

Results

Fifty two 3rd year students were invited to participate in the project and 46 (88%) agreed and gave written informed consent. All students were female and aged between 25 and 55 (mean = 37.5). Many students were ‘returning to learning’ and studying for a career change.

SUDS data and the Hospital Anxiety and Depression Scale (HADS) scores were collected immediately before and immediately after the EFT training. A total of 46 complementary therapy students participated in the research. Table 1 shows the students’ anxiety scores pre and post EFT. It demonstrated that the means for the SUDS, the Anxiety Subscale of the HADS and the total HADS were significantly lower after the EFT intervention. However, there was no significant difference in the depression subscale of the HADS.

Table 1. Results of inferential analysis pre and post EFT

<table>
<thead>
<tr>
<th>Measure</th>
<th>Time</th>
<th>Mean (SD)</th>
<th>P-value</th>
<th>Significant?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Before</td>
<td>After</td>
<td></td>
</tr>
<tr>
<td>SUDS</td>
<td></td>
<td>5.68 (2.79)</td>
<td>3.80 (2.93)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Anxiety Subscale</td>
<td></td>
<td>10.22 (4.78)</td>
<td>7.83 (5.17)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Depression Subscale</td>
<td></td>
<td>4.81 (4.45)</td>
<td>4.56 (4.40)</td>
<td>0.67</td>
</tr>
<tr>
<td>Total HADS</td>
<td></td>
<td>14.97 (8.24)</td>
<td>12.44 (8.46)</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Students in the study were followed-up, to see whether there was a difference in grades points achieved for the presentation, between those in the cohort who had used EFT prior to their presentation and those who had not.

“Marks” were expressed as assignment grades, based on Staffordshire University’s grading system at the time of the study. In this system, grades for Foundation Degrees are
awarded between 1-15, where 1-3 represents a fail; 4-6 represents third class, 7-9 is a lower second, 10-12 is an upper second and 13-15 is First class.

Follow-up data were received for a total of 46 students, 19 of whom had used EFT for their presentation anxiety and 27 who had not. Data were found to be non-normal using the Shapiro-Wilk test; nonparametric statistical tests were therefore used.

Students who had used EFT attained significantly higher grades (mean 10.63, SD=2.872, range 4-14) than those who had not (mean 7.70, SD=2.771, range 4-13). Means were compared using an Independent-samples Mann-Whitney U test, which was significant (p<0.01).

The qualitative data produced a rich insight about the student’s experience of EFT. The students gave positive feedback about their experience of EFT and these were characterised by three overarching themes: theme 1 relating to the effectiveness of EFT in reducing their anxiety and helping them to remain calm and focused; a second theme relating to their use of other complementary approaches and a final theme outline their reasons for not using EFT. Quotes are presented to illustrate the themes. Names have been changed to maintain confidentiality.

**Theme 1: Helpfulness of EFT in reducing anxiety and staying calm and focussed**

It was evident from the quotes that EFT had a calming effect on students which helped to reduce their pre-presentation anxiety and helped to keep them calm and focussed, as illustrated by the following data extracts:

> Yes. I did it [EFT] in the car. It helped. I didn’t sleep well last night – got a dry mouth and feel shaky, but not as bad as I usually am when doing a presentation. My legs are normally going, but they are alright today. It definitely took the edge off. I would definitely use it again. Used it for helping me to sleep and will use it again in future. (Kelly)

> Yes I usually go blank, I forget. And I used it to keep me focussed today. I also used it when I first sat down and looked at the assignment. It did actually work. (Jacky)

> Yes, I done it before I came in and yesterday. It really helped me actually. It helped me to calm down. Helped my emotions – my anxiety, nervousness. Helped me to calm down really. It took the edge off the presentation (Roberta)

> I have done it a few times for other things, for example when I am feeling a little bit worried. ...It was something to do while waiting outside. Tapped in the corridor! (Anne)

**Theme two: Using other complementary therapy skills**

The students were undertaking a Foundation Degree in Complementary therapy and had a range of complementary skills, including aromatherapy and reiki to reduce their anxiety and many made good use of these instead of EFT to help them relax and reduce their anxiety prior to their presentation:
Not used EFT, but did visualisation and used hypnotherapy on myself. (Ruby)

No, used reiki and yoga techniques and my own aroma treatment. (Georgia)

No, not used it today, but used calming oils. I have been using it and found it really helpful. Used it to help when I meet people and to have my photo taken. (Anita)

Theme three: Reasons for not using EFT

Five students indicated that they although they had used EFT successfully for anxiety following the session, they had not carried out any EFT immediately prior to the presentation. Reasons for not using EFT included forgetting, feeling silly tapping it in public, uncertainty that they were doing it right and not being able to tap due to obsessive compulsive disorder (OCD):

Tapped in the morning and before driving in to do the presentation and it helped bring down my anxiety levels, but I didn’t tap immediately before the presentation, as I was in a busy corridor and felt daft doing it. That would have really helped. (Cathy)

I did not use it on the day of the presentation as I was not sure I was doing it ‘right’ (Lynne)

I struggled with EFT as I have OCD and I kept counting the number of taps, rather than focussing on my anxiety. (Lee)

Two students, who forgot to use EFT, reported their regret at not using it:

No. Didn’t. I should have [used EFT]... I think if I’d used it, it would have been a good idea. I would have done better. Can’t believe I didn’t actually. (Amanda)

Yes, used it in the past, but not today. I didn’t even think about it. That would have been a good idea! I just forgot I was in such a panic. Have used it for headaches and stuff in the past and it worked. (Alison)

Discussion

This small study explored the feasibility of using group EFT in reducing presentation anxiety in University students and enhancing academic performance. The results suggest that group EFT is an effective intervention in reducing presentation anxiety as measured using SUDS and HADS and that EFT can be used to reduce anxiety and enhance performance. Indeed, the anxiety reducing effects of EFT reported in this study are consistent with the findings of previous research that has used EFT to reduce exam stress and presentation anxiety in high school and university students (Boath et al., 2012b; Schoninger, 2004; Sezgin & Ozgin, 2009; Feinstein 2008).
The qualitative data analysis revealed three overarching themes. Students on the whole felt that EFT was very useful in reducing their presentation anxiety.

There was no significant difference in pre and post depression scores on the HAD depression subscale. This is in line with previous research (Boath et al., 2012b) and reflects the focussed nature of EFT and that the tapping was aimed at reducing anxiety and not depression.

Eight is the cut-off point for caseness for both the anxiety and depression subscales of the HAD. A score above 8 on either subscale suggests a clinical level of depression or anxiety. The depression scores pre and post EFT were substantially below 8, suggesting that students were not depressed. However, the mean anxiety scores pre EFT of 10.22 were well over the clinical cut-off point for anxiety and this highlights the high level of anxiety students felt in relation to their presentation. The mean anxiety levels following the EFT intervention reduced to 7.83, which suggests that their anxiety had reduced to a non-clinical level. It is feasible that a further round of EFT may have resulted in even greater reductions in anxiety levels (Craig, 2011) and future research should explore this.

In line with other EFT research, there were no ethical or safety issues identified during the study. Only one student with obsessive compulsive disorder (OCD) highlighted that she could not perform EFT properly as her OCD involved counting and meant that she concentrated on counting the number of taps and not her anxiety. This may be a limitation of EFT, however the literature suggests that EFT can be a useful treatment for OCD and offers solutions to this issue including varying the order and number of tapping points (Moran, 2012; Bressler, 2011).

Research has questioned the validity of using self-report scales alone (Carrell & Williamson, 1996 cited in Jones). The HADS and SUDS scales were not repeated on the day of their presentation. Further research is currently underway that will do this. However the qualitative results suggest that the students who used the EFT on the day of their presentation found it extremely helpful.

Although the results suggest that EFT is an effective group treatment for presentation anxiety and to enhance performance, these are tentative due to the limitations of the study outlined below.

The use of a convenience sample of complementary therapy students may have meant that many were more inclined towards the use of a psychological intervention than students studying for other courses. The authors have carried out a similar intervention with Sport Science students and many of them were initially very sceptical. Indeed the authors’ clinical experience suggests that many people find the idea of EFT absurd, let alone the idea that this can also have an impact on their psychology and other research supports this assertion (Burkeman, 2007; Gaudiano & Herbert, 2000).

Public speaking anxiety is often reported to be greater in women that in men (Furmark, 2002; Pollard & Henderson, 1998). The students were all women and so further research is currently underway with a cohort of male and female students to assess if there is a gender difference. The present study did not obtain demographic informational such as age, ethnicity or disability future research will include these variables.
There was a long period (8 weeks) between the EFT training session and the presentation. Students were sent a reminder email. However they were not directly instructed to continue tapping, but were told that they could use EFT if they wished prior to their presentation. Although 8 weeks seems long other EFT research has demonstrated that a single brief EFT session is effective and that the results are maintained for up to 6 months when EFT is used for weight loss or phobias (Stapleton et al., 2011; Wells et al., 2003). However, it may be that the acute, situational nature of presentation anxiety, requires further intervention.

This study did not take into account factors such as personality and learning styles that have been shown to play significant roles in influencing academic achievement (Komarraju et al., 2011; Richardson et al., 2012). Furthermore, the use of learning and study skill in enhancing performance (Hamblet, 2012) was not addressed. Future research could consider exploring these traits.

Overall the students who used EFT had a mean grade of 10.73, equating to an upper second, whereas those who did not use EFT had a mean grade of 7.7, which equates to a lower second. However, students’ prior academic performance in presentations was not assessed, as previous presentations had been group presentations and this was the only individual presentation they had during their course. It is therefore impossible to conclude that EFT enhanced their performance, as it may be that students who used EFT were less anxious, or were simply more adept at using mechanisms at their disposal to enhance their performance. Future research should compare outcome with marks on previous presentations.

The sample size in the current study was small (n=46), they were all women and there was no control group. The question therefore arises as to whether the findings from this small select group of female university complementary therapy students could generalise to a wider population of students. In order to explore this an RCT of EFT versus a lecture on presentation skills using larger cohort of male and female students doing a sports science degree is currently underway. (Boath et al., ongoing).

27 out of the 46 students (59%) did not carry out any further EFT and this is higher than rates of ‘dropout’ in other studies that have used EFT (Karatzias et al 2011(39%); Brattberg, 2008 (40%). This higher rate may be due to the fact that this cohort of complementary therapy students had other complementary skills, such as aromatherapy that they could call on to reduce their anxiety, as highlighted in the qualitative analysis. The most common reason for not using EFT was that they had forgotten about it, or had forgotten how to do it. Many of those who forgot also added that they wished that they had remembered and felt that their performance would have been enhanced if they had used it.

For the 19 students who did continue tapping, the frequency and duration of tapping was not assessed. Future research could employ a diary method to record this and also explore the duration of treatment effects.

Although there was an immediate effect on SUDS and the anxiety subscale, the evidence for long term effects was not addressed in this study as the HADS and SUDS were not repeated on the day of the presentation. Future research should consider assessing students immediately prior to and after their presentation.
The HADS assesses feelings of depression and anxiety over the past week. A scale such as the Spielberger State-Trait Anxiety Inventory (STAI; Spielberger et al., 1983), that has been used in other anxiety research, and distinguishes between the temporary condition of ‘state anxiety’ and the more general, long-standing ‘trait anxiety’ may have been a more appropriate choice of outcome measure.

The scales used were both self-report and although the results highlighted high levels of anxiety in both groups, the sample was not therefore derived from a clinically diagnosed anxious population.

The HAD and SUDS scales do not address presentation anxiety per se and so scales designed to assess apprehension, confidence in public speaking and communication competence such Personal Report of Communication Apprehension, Personal Report of Confidence as a Speaker and Self-Perceived Communication Competence (Hancock et al., 2010) would be valuable future outcome measures.

The outcome measures used were both self-report and although the results highlighted high levels of anxiety in the students, the sample was not derived from a clinically diagnosed anxious population. Future research would benefit from the use of a clinician assessed scale, such as the Structured Clinical Interview for DSM Disorders.

Research has also shown that EFT is effective with large groups of people (Rowe, 2005) and so has the potential to offer very efficient and cost effective interventions to student groups. However, it would be interesting to explore if individual sessions with students were more effective.

The lead researcher (EB) was not blind to treatment group. The researchers who collected the data and interviewed the students (EB and AC) were also the module lead and award leader for the group and were therefore known to the students.

The students were aware that the authors were highly experience advanced EFT practitioners and that all have a strong allegiance to EFT. This may have influenced students’ responses via verbal or non-verbal cues and may well have strengthened the ‘client-therapist’ relationship which is known to have a positive effect on treatment outcome.

**Conclusion**

Despite the limitations of the study, the results suggest a potential role for EFT as a group intervention in reducing presentation anxiety and potentially enhancing academic performance in University students. In addition, given that it takes a very short time to train students to use EFT, and that once learned, EFT can be very effectively self-administered suggests that EFT may be a useful addition to curricula for courses that include oral presentations. Furthermore, EFT can easily be transferred to other aspects of student life, for example exam stress and so could be used to reduce anxiety around exams and potentially enhance exam performance. Further research is planned to address this.

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**Conflict of interest**

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Ethical approval

Ethical approval was obtained from Staffordshire University.

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