

# Journal of Sports Medicine and Allied Health Sciences: Official Journal of the Ohio Athletic Trainers Association

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Volume 4  
Issue 1 *OATA Supplemental Issue*

Article 19

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May 2018

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### Recommended Citation

Tedtman, Samuel; Massie, Brett; and Smith-Goodwin, Erika (2018) "Investigating the Efficacy of Emotional Freedom Technique on Perceived Stress in Athletic Training Students," *Journal of Sports Medicine and Allied Health Sciences: Official Journal of the Ohio Athletic Trainers Association*: Vol. 4 : Iss. 1 , Article 19.  
DOI: <https://doi.org/10.25035/jsmahs.04.01.19>  
Available at: <https://scholarworks.bgsu.edu/jsmahs/vol4/iss1/19>

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## ***Investigating the Efficacy of Emotional Freedom Technique on Perceived Stress in Athletic Training Students***

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### **BACKGROUND**

Athletic training students are subject to increased perceived stress due to the demands of athletic training education programs.<sup>1,2,3</sup> Emotional Freedom Technique (EFT) is a therapeutic treatment utilized for stress management. The proposed method of efficacy for EFT is a psychological component of positive-affirmation followed by a somatic element of acupuncture along certain bodily meridians, present on the head and upper body.<sup>4</sup> EFT has been shown to reduce midbrain hyperarousal by eliciting the midbrain's anxiety reflex and then replace it with a relaxation response to "reciprocally inhibit" anxiety.<sup>5</sup>

### **OBJECTIVE**

The purpose of this study was to investigate the efficacy of Emotional Freedom Technique treatments as a psychosocial intervention for stress management in athletic training students of various class standings and genders.

### **DESIGN and SETTING**

Survey research design in a collegiate setting. This study used the Perceived Stress Scale (PSS) both pretest and posttest after EFT treatments to measure efficacy at a private, Division III, midwestern institution. In addition, an independent survey that was created by the researcher was used to acquire information relating to the student's perception of EFT. The independent variable of this study was the population of consenting athletic training students. The dependent variable of this study was the levels of stress that the students are experiencing both before and after EFT treatments, as measured by the

PSS. To begin the psychological component of EFT treatment, patients create a "setup statement" consisting of an emotionally traumatic event and associate it with a statement of self-acceptance. E.g. "Even though I have this feeling of stress and anxiety I deeply and completely accept myself." The somatic component of EFT involves acupuncture, or tapping specific points on the head and trunk in a specific order in 2 phases. In the first phase, participants will tap the outside part of their opposite hand, called the karate chop, while repeating their setup statement 3 times. Second, participants will tap 8 additional meridian points, 6 of which are on the head and an additional 2 on the trunk. After completion, the participant will take a deep breath and recall the original memory and rate their distress via PSS. EFT is continued in cycles until their stress is relieved or reduced.

**PATICIPANTS** The total sample size for the convenience sample was 33 students N=33. 24%(n=8) of the participants were seniors. 48%(n=16) were juniors, while the sophomores had 27%(n=9) of the participants. 48%(n=16) of the subjects were male while 51%(n=17) were female. The freshman athletic training students were not included in the study.

**INTERVENTIONS** The research was approved by the College Institutional Review Board through expedited review. Content validity was established through the Table of Specifications. Face validity was established through a panel of experts. Descriptive statistics (% and frequency counts) were used for all applicable items. For the independent

survey, Chi square tests were used with gender as the grouping variable. A Kruskal Wallis test was ran using class standing as the grouping variable. Both had an alpha level set at .05 *a priori*. The data collected was analyzed using the Statistical Package for the Social Science (SPSS) version 24.0. PSS results were recorded in Microsoft Excel 2016.

### **MAIN OUTCOME MEASURES**

Originally introduced in 1983 by Cohen et al, The Perceived Stress Scale asks 10 questions, all using a 5-point Likert scale. (Very often(4), fairly often(3), sometimes(2), almost never(1), and never(0)) The independent survey asked 16 questions. Questions 1-12 used a 5-point Likert scale, (Strongly agree(5), agree(4), neutral(3), disagree(2), and strongly disagree(1)) Question 13 uses a 3-point Likert scale. (Yes(3), N/A(2), and No(1)) Question 14 uses a 5-point Likert Scale. (6+ times(5), 5-6 times(4), 3-4 times(3) 1-2 times(2), and 0 times(1)) Question 15 uses a 2-point Likert scale. (Female(2) and male(1)) Lastly, question 16 uses a 3-point Likert scale. (Senior(3), junior(2), and sophomore(1))

### **RESULTS**

For week 1, the difference between the aggregate pretest and posttest PSS scores for all the participants 100%(n=33) was a decrease of 0.74 points after EFT treatment. For the second week, the difference between the aggregate 100%(n=32) PSS scores before and after EFT treatment was a decrease of 0.71 points. For week 3, the difference between the pretest and posttest PSS scores for all of the subjects 100%(n=33) was a decrease of 0.71 points. When grouped by class standing, the average PSS score of the senior class 24%(n=8) during week 1 was decreased by 0.37 points. The junior class 48%(n=16) recorded a decrease of 0.5 between the pretest and posttest PSS averages. The sophomore class 27%(n=9) recorded a decrease of 1.33 points on the PSS following EFT treatment. For week 2, the senior class 22%(n=7) recorded a decrease of 0.43 points on the PSS. The junior class

47%(n=15) experienced a decrease of 1.2 points on the PSS. The sophomore class 25%(n=8) recorded a difference of 0.5 points between the pretest and posttest PSS. For the third week of the study, the senior class 24%(n=8) recorded an increase of 0.12 points on the PSS after EFT treatment. The junior class 48%(n=16) recorded a decrease of 1.37 points on the PSS. The sophomore class 27%(n=9) concluded with a difference of 0.88 points between the pretest and posttest PSS. When grouped by gender, the average PSS score for the males 48%(n=16) during the first week was increased by 0.22 points. The female subjects 51%(n=17) of the study experienced a decrease of 1.84 points on the PSS. For week 2, the males 46%(n=15) recorded a difference of 0.49 points between the pretest and posttest PSS. The females 50%(n=16) recorded a decrease of 0.88 points on the PSS. For week 3, the male students 48%(n=16) experienced a decrease of 0.46 points on the PSS. The female students 51%(n=17) recorded a difference of 0.96 points between the pretest and posttest PSS. The independent survey returned nothing of statistical significance between the Chi square and Kruskal-Wallis tests. However, the independent survey reported that over 3 weeks, 64%(n=21) of the subject agreed that they felt less stressed after EFT treatment. The average agreement for an immediate difference in stress following EFT treatment was 51%(n=17). In addition, the average disagreement for the difference in stress not being immediate was 51%(n=17). Across 3 weeks, 100%(n=33) of the subjects agreed that EFT was easy to learn. The average agreement for feeling calmer after using EFT was 79%(n=26) over 3 weeks. 47%(n=16) of the subjects on average agreed to feeling happier after using EFT. The mean for agreement that academic demands are the most stressful component of athletic training was 83%(n=28). Average disagreement that clinical demands were the most stressful component was 55%(n=19). External factors

accounted for 71%(n=24) average agreement as the greatest contributor to overall stress.

### **CONCLUSIONS**

The results of this study showed a minor decrease in the amount of perceived stress experienced by athletic training students after intervention of EFT. Although these decreases were minor, the implications of the results are that EFT may be an effective technique for the management of stress in athletic training students.

### **REFERENCES**

1. Clement D, Gilson T. Helping athletic training students deal with stress. *International Journal Of Athletic Therapy & Training* [serial online]. January 2012;17(1):20-23. Available from: CINAHL Plus with Full Text, Ipswich, MA. Accessed September 7, 2017. [doi.org/10.1123/ijatt.17.1.20](https://doi.org/10.1123/ijatt.17.1.20)
2. Mazerolle S, Bowman T, Fister C. Coping strategies used by athletic training majors to manage clinical and academic responsibilities. *International Journal of Athletic Therapy & Training* [serial online]. May 2015;20(3):4-12. Available from: CINAHL Plus with Full Text, Ipswich, MA. Accessed September 7, 2017. [doi.org/10.1123/ijatt.2014-0061](https://doi.org/10.1123/ijatt.2014-0061)
3. Mauzy J, Bowman T, Mazerolle S. Factors of stress, burnout, and frustrations experienced by athletic training students. *Internet Journal of Allied Health Sciences & Practice* [serial online]. April 2015;13(2):1-14. Available from: CINAHL Plus with Full Text, Ipswich, MA. Accessed September 7, 2017. [doi.org/10.4085/1102110](https://doi.org/10.4085/1102110)
4. Church D, Brooks A. Application of emotional freedom techniques. *Integrative Medicine: A Clinician's Journal* [serial online]. August 2010;9(4):36-38. Available from: CINAHL Plus with Full Text, Ipswich, MA. Accessed August 31, 2017.
5. Varvogli L, Darviri C. Stress management techniques: evidence-based procedures that reduce stress and promote health. *Health Science Journal* [serial online]. April 2011;5(2):74-89. Available from: CINAHL Plus with Full Text, Ipswich, MA. Accessed September 1, 2017.

**KEY WORDS:** *emotional Freedom Technique, perceived stress, athletic training students, psychological intervention, Perceived Stress Scale*