

Academic Performance Enhancement using Chiropractic Manipulative Therapy and Applied Kinesiology

Matthew Peahl, D.C.

ABSTRACT:

Objectives: The purpose of this case report is to describe the effectiveness of chiropractic manipulative therapy in an academic setting.

Clinical Features: After receiving several prior successes with digestive complaints, allergies, and sinusitis to name a few, a very healthy teenager presents complaining of distress while reading in a test taking environment.

Intervention and Outcome: The patient was provided chiropractic manipulative therapy including high-velocity/low-amplitude spinal manipulation based upon Applied Kinesiology manual muscle testing. The patient demonstrated tremendous improvement in her rate of reading after one session. Four weeks later she increased her ACT score by 6 points.

Conclusion: For this patient, chiropractic care guided by Applied Kinesiology evaluation proved very successful for reading and academic performance.

KEY INDEXING TERMS:

Kinesiology, applied; Chiropractic; Manipulation, spinal; Performance, academic; Performance, ACT

INTRODUCTION:

A 16-year-old female presented in good health with the complaint of distress related to preparing for a specific section of her ACT (originally named American College Testing). ACT is a standard test for high school achievement and college admissions in the United States. In 2011, ACT (1,666,017) surpassed SAT (1,664,479) in the number of students that took the exam. There are four original sections to the ACT: English, Mathematics, Reading, and Science Reasoning. An optional writing section was added in 2005, mirroring changes to the SAT that same year. The section she was having most difficulty with was reading and comprehension.

The reading section consists of answering 40 questions from four passages within 35 minutes. The passages are from four different areas of interest: prose fiction, social science, humanities, and natural science. Her complaint was having enough time to read and comprehend the material in the time allowed to complete the questions. With enough time to read, she had little difficulty in answering the questions. At the time she had presented her complaint to our office she had taken the ACT exam two times, each scoring 27 out of 36 possible points. The mean composition score for the ACT of all sections is 18 with a standard deviation of 6. In 2009 the average score in reading was 21.4. Her scores already place her at the 82 percentile, meaning 82% of tests takers scored below 27 in reading. This score places her between the “selective” and “highly selective” schools according to

the ACT Assessment Student Report. Needless to say this patient did not seem to struggle compared to the average person, including her mother who felt her daughter's scores were great. Regardless, the patient was distressed over her perceived lack of ability to complete the exam in the time given.

She originally presented to our office over one year prior with complaints of chronic sinusitis, allergies, and digestive complaints. Under care of our office her digestion improved, her sinus complaints resolved, and she became less reactive to allergens. Two months after she began care, she presented with the complaint of grass allergies. Utilizing various techniques in Applied Kinesiology (AK), in particular Ocular Lock (OL), she was no longer aggravated after a single treatment. Thus, she had been under care of our office for more than a year and has made great advances in the quality of her health and well-being over this time.

Upon examination she showed no change to her Rectus Femoris, being used as an indicator muscle (IM), when she Therapy Localized (TL) Kidney 27 (K 27) acupuncture points bilaterally in all possible positions (palms down, palms up, one palm up and the other down, all previous repeated with eyes closed, and cross TL palm up and down).

We hypothesized that if we could find Hidden Neurological Dysfunction related specifically to reading, and identify the cause, the associated distress could be relieved and she would be able to perform better. We had the patient read paragraphs from her ACT study guide book as fast as she could, without concern for how much she retained. We allowed her one minute to read through as many lines as she could.

Her first attempt she read 25 lines within the given minute. Immediately after this, she showed a positive TL to K 27, suggesting she has a Hidden Neurological Disorganization pattern associated with reading. David Walthers explains that many problem patients which do not respond to treatment are not being examined within the parameters in which they live. In a student's case, they live in the books.

TREATMENT:

We utilized OL as taught in Timothy Francis' Basic AK 100 Hour Course when a positive K 27 TL was found. TL was used to confirm the appropriate spinal location to correct the associated OL positional dysfunction. Palpation and challenge was used to identify the specifics of the restrictions and vector for Chiropractic Manipulative Therapy (CMT). After each correction, and the successful elimination of a positive TL to K 27 in any possible hand position, the patient would repeat the reading exercise until another positive TL to K 27 was obtained to be corrected.

Her first round she obtained 25 lines, revealing a positive K 27 TL. Eyes held up and to the right created inhibition of her Pectoralis Major Clavicular muscles used as IMs. This dysfunction was corrected with CMT to her C0-C1 joint. The OL was corrected and K 27 did not TL. Her second attempt she did not produce a positive TL to K 27 by reading 32 lines in one minute. Her third try she read 35 lines, but it wasn't until she read 38 lines on her fourth reading that she produced another positive TL to K 27. This method was repeated until her reading plateaued and TL to K 27 could not

affect an indicator muscle. Six CMT corrections were made in total including spinal segments C0-C1, S1, T2, T8, and L4.

OUTCOME:

By the end of the 30 minute treatment session the patient had increased the amount of lines she could read from her ACT study guide book from 25 lines which elicited a positive K 27 TL to 125 lines that did not elicit a positive TL to K 27 after three attempts.

She returned one week later for follow-up evaluation reporting that she had taken a reading and comprehension exam earlier that week. She was thrilled to say that previously she regularly had difficulty finishing those exams on time, however this time she finished more than ten minutes early and found the exam to be noticeably easier than she had previously experienced.

Examination revealed no positive TL to K 27 when testing with an IM. Introduction of the stressor, reading as many lines as possible in a minute, did not create a positive TL to K 27 after 5 attempts. She was reading at that time 85-89 lines a minute.

She returned to our office in total of 3 times after the first treatment prior to taking the ACT for her third time. Each of the follow-up visits was the same in that reading at maximum capacity could not elicit a positive TL to K 27 with hands in all possible variations. Treatments were provided for other findings utilizing posture and pulse point analysis.

Immediately after receiving the ACT results from her third sitting, the mother contacted us to reveal the results that her daughter had increased her reading score by 6 points to a 33, moving her up to the 97th percentile. The mother at that time reported that when they had looked into tutoring for the reading section with professionals, the best that five weeks of intense work could achieve is a 5 point increase.

The following is a testimonial from the patient:

Hi Dr. Peahl,

Here is the testimonial-style write-up I have:

Dr. Peahl has helped me improve my reading pace. I had been struggling with the reading section of the ACT standardized test because I could never finish reading in the time limit. After working with Dr. Peahl, I was able to read more and more of the required passages in the allotted time. I started out reading only 20 lines per minute, and actually moved up to over 100. I am reading so much faster- the improvement is undeniable. My ACT Reading score improved 6 points. Thank you for the help!

DISCUSSION:

Very little time, effort, and cost when compared to five weeks of intense tutoring yielded very desirable results to this patient. The United States has an accumulative 17% increase in developmental disabilities, including learning disabilities, according to the Centers for Disease Control. The services offered by AK physicians utilizing CMT may offer great benefit to this growing trend.

This procedure has been repeated amongst student populations with desirable outcomes. However, none with as profound of results as discussed here. Reasons include the diligence of the patient in taking notice of changes and having the appropriate parameters to test the efficacy by other means than had been utilized in our office. Another element that is very crucial to consider is that the patient had been under care with positive outcomes in the past. This suggests two possible underlying criteria. First, during the time she has been under the care of this office she had become a much healthier and performance-ready individual. Secondly, her positive experiences in the past may have created great confidence within the patient toward the treatments delivered. These two reasons may trend this particular patient to greater results than those without similar experiences.

REFERENCES:

1. Martz G, Magloire K, and Silver T. "Chapter 17". Cracking The ACT (2007 ed.). The Princeton Review. pp. 239.
2. American College Test INC. (ACT). Research and Policy Issues-Information Brief 2002-1. (n.d.). "Interpreting act assessment scores: College admissions." Retrieved October 8, 2012, from <http://www.act.org/research/researchers/briefs/2002-1.html#UItAIYq5fw>
3. Walther DS. Applied Kinesiology: Synopsis. 2nd Edition. Pueblo: Systems DC; 2000. pp 170-175.
4. Francis T, Hughes M, Barr J, Applied Kinesiology-The 100 Hour Course, (2005-2006).
5. Boyle CA, Boulet S, Schieve L, Cohen RA, Blumberg SJ, Yeargin-Allsopp M, Visser S, Kogan MD. Trends in the Prevalence of Developmental Disabilities in US Children, 1997–2008. Pediatrics. 2011