Postural Changes in Asymptomatic College Students Treated with Chiropractic Manipulation.

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Posture is a biomechanical state that relates functionality with osseous, muscle and nervous system. Body stability is determined by interaction of these systems. Posture also assist regulating load or weight distribution on lower extremities, contributing to an adequate corporal alignment and proprioception. Incorrect posture behaviors, as product of daily college activities, provokes malfunction of these three systems resulting in asymptomatic postural alterations. We previously reported that chiropractic manipulation with Diversified technique, improves posture (biomechanical stability) in distance college runners. Therefore, we analyzed postural changes before and after chiropractic manipulation on asymptomatic college students. A 65 asymptomatic college students (UNEVE) were selected. Two images were taken and analyzed per student, before and after chiropractic manipulation using Posture Screen Software mobile version 1.3.9 (Posture Co, Inc.). Vertical line (AP) and lateral line (LL) from areas cervical, dorsal, lumbar, knees, as well as, weight were analyzed. To determine displacement differences for AP and LL regarding ideal lines, we established negative (-) values to AP when located towards patient left side and to LL when located forward to the patient. Chiropractic manipulative treatment consisted in two adjustments per week, during a 2-month period (16 adjustments) with Diversified technique. For AP significant differences ($p<0.05$) at cervical region during adjustments 6-10 and 14-16 were observed. For dorsal and lumbar areas, we observed significant differences during adjustments 2-16. Considering weight, we only observed significant differences during adjustments 5-10-15. For LL images significant differences ($p<0.05$) were obtained in cervical region during adjustments 1-5 and 9-12, dorsal area from 3-16, lumbar region at 4-7 and knees in adjustments 6-7. According to our results, chiropractic manipulative treatment, lead AP and LL to shift towards ideal posture values and redistributes loads (weight) in both lower extremities. Treatment helped cervical, dorsal and lumbar postural alignment and improves biomechanical stability in students.

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