## Efficacy of CAM Methods for Pain Reduction in Acute Non-specific Lower Back Pain

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Abstract: Objectives: Complementary and alternative medicine (CAM) is a medicine or health practice that is used alongside conventional practice. Nowadays, CAM is commonly used in North America and other countries, and there is a need for more scientific study to understand its efficacy in different clinical cases. This retrospective study explores the effectiveness and recovery time of CAMs such as cupping, acupuncture, and sotal to treat cases of non-specific low back pain (ANLBP). Methods: We assessed the effectiveness of acupuncture, cupping, and sotal methods on pain and for the treatment of ANLBP. We have compared the magnitude of pain relief using a pain scale assessment method to compare the efficacy of each treatment. The Face Pain Scale assessment was conducted before and 24 hours post-treatment. This retrospective study analyzed 40 patients and categorized them according to the treatment they received. The study included the control group, and the three intervention groups, each with ten patients. Each of the three intervention groups received one of the intervention methods. The first group received the cupping treatment, where cups were placed on the lower back of both sides on points: BL23, BL25, BL26, BL54, BL37, BL40, and BL57. After vacuuming, the cups will stay for 10-15 minutes under infrared light (IR) heating. IR heating is applied by an infrared heat lamp. The second group received the acupuncture treatment, placing needles on points: BL23, BL25, BL26, BL52BL54, GB30, BL37, BL40, BL57, BL59, BL60, and KI3. The needles will be simulated with IR light. The final group received the sotai treatment, a Japanese form of structural realignment that relieves pain, balance, and mobility moving the body naturally and spontaneously towards a comfortable direction by focusing on the inner feeling and synchronizing with the patient's breathing. The SPSS statistical software was used to analyze the data using repeatedmeasures ANOVA. The data collected demonstrates the change in the FPS assessment method value over the course of treatment. p<0.05 was considered statistically significant. Results: In the cupping, acupuncture, and sotal therapy groups, the mean of the FPS value reduced from 8.7±1.2, 8.8±1.2, 9.0±0.8 before the intervention to 3.5±1.4, 4.3±1.4, 3.3±1.3, 24 hours after the intervention, respectively. The data collected shows that the CAM methods included in this study all show improvements in pain relief 24 hours after treatment. Conclusion: Complementary and alternative medicine were developed to treat injuries and illnesses with the whole body in mind, designed to be used in addition to standard treatments. The data above shows that the use of these treatments can have a pain-relieving effect, but more research should be done on the matter, as finding CAM methods that are efficacious is crucial in the landscape of health sciences.

**Keywords:** acupuncture, cupping, alternative medicine, rehabilitation, acute injury

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