

**Continuing Education Seminar's Impact on Knowledge and Retention among Athletic Trainers.**

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**Context:** The athletic training profession requires continuing education (CE) to maintain their national practice credential. Recent research has shown healthcare professionals to have knowledge and skill declines post-continuing education courses. Even with the CE mandate and available research, there is little evidence on the effectiveness of continuing education in the profession of athletic training. There is also a lack of research on the impact of a CE seminar assessing behavior change post-seminar. Therefore, the purpose of this study is to determine the impact of an educational seminar on participant knowledge gain, knowledge retention, and reported use of ES for pain management. **Methods:** An electronic survey was sent to preceptors at a CAATE accredited institution and recipients were encouraged to use snowball recruiting. A total of 48 certified athletic trainers, from two samples, with an average of seven years of experience, started this study. A web-based survey assessed educational history, current use, perceived and actual knowledge of electrical stimulation. Participants attended a 1.5-hour seminar and completed surveys pre-seminar, post-seminar, and at one-month follow-up. Basic descriptive statistics were calculated for all responses and scores. Paired t-tests were used to assess changes over time on knowledge, with significance set at  $p < .05$ . Independent samples t-testing, with Levene's test for equality of variance and means, was performed to ensure samples could be pooled. Related-Samples Wilcoxon signed rank test was used to assess differences between usage for acute and post-operative pain. **Results:** A total of 41 participants completed the post-seminar survey and 30 of those completed the one-month follow-up survey (62.5% response rate). Most (82.9%,  $n = 34$ ) participants rated the seminar as excellent. Participants ( $n = 41$ ) demonstrated a significant improvement in perceived ( $t(40) = 7.03, p < .001$ ) and actual knowledge scores ( $t(40) = 5.08, p < .001$ ) post-seminar. Those who completed the one-month follow-up survey ( $n=30$ ) demonstrated a significant increase in perceived knowledge ( $t(29) = 5.11, p < .001$ ) post-seminar. Perceived knowledge scores decreased significantly on the one-month follow-up survey ( $t(29) = 3.17, p = .004$ ) but remained significantly higher than pre-seminar ( $t(29) = 3.13, p = .004$ ). The participants also demonstrated a significant increase in actual knowledge post-seminar ( $t(29) = 3.03, p = .003$ ) and remained significantly higher than pre-seminar at the one-month follow-up surveys ( $t(29) = 3.69, p < .001$ ). The frequency of use for electrical stimulation showed no significant difference for acute pain ( $Z = -.816, p = .414$ ) or post-operative pain usage ( $Z = -.465, p = .642$ ). **Conclusion:** These findings suggest that the presentation was effective for improving both perceived and actual knowledge scores in athletic trainers and was well received by the participants. The seminar was not effective for increasing the use of electrical stimulation in the sample.