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Athletic Trainers' Perceived and Actual Knowledge of Cold Related Modalities

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Context: To date, there does not appear to be a study published that has examined the perceived and actual knowledge of cold related modalities that athletic trainers process. **Objective:** The purpose of this study was to determine the perceived and actual knowledge of cold related modalities among athletic trainers. **Design:** Cross sectional study. **Setting:** Electronic, web-based survey sent to credentialed athletic trainers. **Patients or Other Participants:** 191 certified athletic trainers completed the study (age = 42 ± 12 years, years of certified experience = 19 ± 11 years). **Interventions:** Participants were sent an electronic survey via email that assessed frequency of usage, perceived knowledge, and actual knowledge of cold related modalities. Data was downloaded and analyzed using a commercially available statistics package (SPSS Version 26, IBM, Armonk, NY). Measures of central tendency (means, standard deviations, frequencies) were calculated for all survey items. A Pearson correlation was calculated for the perceived and actual knowledge items to assess for a knowledge gap between what one believes they know and what they actually know. Significance was set at $P < .05$ a priori. **Main Outcome Measures:** Usage of cold related modalities, perceived knowledge of cold related modalities, actual knowledge of cold related modalities. **Results:** The majority of athletic trainers reported using cold related modalities to treat acute, chronic, and post-operative pain. Regarding perceived knowledge, most respondents indicated some level of confidence in their knowledge of cold related modalities.

Average scores on actual knowledge were $6.07 \pm$ out of 10 questions. No significant relationship was found between perceived and actual knowledge ($r = 0.127, P = 0.081$). **Conclusions:** While the majority of athletic trainers reported confidence in their knowledge of cold related modalities, their demonstration of actual knowledge was not commensurate. However, individuals who recently participated in post-professional continuing education related to cold related modalities demonstrated better actual knowledge of the topic than those who did not. This suggests that clinicians may benefit from continuing education interventions to improve knowledge of the definition, modes of action, indications, and contraindications of cold related modalities.