Problem-Based Learning to Cultivate Competent Athletic Training Clinicians

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Context: Athletic training education is continuing to grow and change as different instructional methods are studied and implemented. Problem-based learning is one instructional method that has been implemented in varying degrees in athletic training education programs but its effectiveness has not been studied extensively. Problem-based learning has been used in medical education for several decades and has been shown to be a successful teaching strategy and instructional method. **Objective:** The aim of this study was to examine if problem-based learning in one athletic training education program had an influence on Board of Certification (BOC) exam scores. **Design:** To determine this, one athletic training program that implemented problem-based learning into its curriculum in 2002 was examined. Five years of graduates from both the traditional curriculum and problem-based learning curriculum were studied. In addition to examining BOC exam scores, additional data including high school GPA, college graduating GPA, and SAT score were analyzed to determine if a relationship exists between BOC exam scores and academic achievement. **Setting:** The setting for this study was one athletic training education program which implemented a problem-based learning curriculum in 2002. **Subjects/Participants:** Participants included graduates, between the years of 2000 and 2009, of the studied athletic training education program. The traditional curriculum group included the graduates from 2000 – 2004, and the problem-based learning group included the graduates from 2005 – 2009. **Intervention:** A problem-based learning curriculum was implemented into the athletic training education program curriculum in 2002. **Main Outcome Measure:** Results on the Board of Certification Examination. Additionally, high school GPA, college graduating GPA, and SAT score were analyzed to determine if a relationship exists between BOC exam scores and academic achievement. **Results:** The data was analyzed with a correlation analysis and a Kruskal-Wallis test. The correlations for high school GPA, graduating GPA and SAT scores were .119, .344, and .282, respectively. This shows a very slight association between the covariates; the highest correlation was graduating GPA. The Kruskal-Wallis Test showed a significance of p = .266, indicating no significant difference in examination scores at a significance level of $p < .05$. **Conclusions:** Although no significant differences were found, caution should be used in making any definitive conclusions about the use of problem-based learning in athletic training education. This study had a small sample size and examined only one athletic training education program. Future studies should be conducted with a larger sample size, such as an entry-level graduate program or using a different outcome measure. **Key Words:** problem-based learning, athletic training education, Board of Certification Examination.

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