CPR Knowledge and Skill Retention Among NCAA Division III Athletic Coaches: A Prospective Cohort Study

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CPR Knowledge and Skill Retention Among NCAA Division III Athletic Coaches: A Prospective Cohort Study

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OBJECTIVE
It is crucial for athletic coaches to be proficient in CPR knowledge and skill performance for the health and safety of their athletes. This research aimed to assess CPR knowledge and CPR skill retention five months post-training among athletic coaches. In addition, the study assessed whether the number of years certified in CPR had an association with CPR skill performance scores five months post-training.

STUDY DESIGN AND SETTING
This prospective cohort study was performed over a five-month period.

PARTICIPANTS
The study was conducted among 19 NCAA Division III athletic coaches.

INTERVENTION
All participants attended an American Red Cross CPR training immediately followed by an initial knowledge and skills assessment. Five months later, participants completed the same knowledge and skills assessment again. Participants completed a survey to submit the number of years they had been certified in CPR.

MAIN OUTCOME MEASURE
Paired samples t-tests were used to assess the change in CPR knowledge (t(18)=4.42, p<0.001) and skill performance (t(18)=0.62, p>0.05) scores over a five-month period. A multiple linear regression analysis assessed whether the number of years certified in CPR had an association with CPR skill performance scores five months post-training (F(2,16)=3.64, p=0.05) with an $R^2$ of 0.23. The multiple linear regression analysis was examined after controlling for the initial scores (t=-1.75, p>0.05).

RESULTS
The data analysis found a significant decrease in CPR knowledge performance with no significant difference in CPR skill performance from the initial to five-month follow-up assessments. The results did not suggest a significant association between the number of years certified in CPR and CPR skill retention.

CONCLUSION
This study suggests that refresher trainings may be beneficial among athletic coaches to improve CPR knowledge and skill retention.

KEY WORDS: Cardiopulmonary Resuscitation, Skill Retention, Knowledge Retention, Athletic Coaches