Heating Up Coaching Education: What Coaches Need To Know

Lindsey E. Eberman, Ph.D.                      Kimberly J. Bodey, Ed.D.
Indiana State University                      Indiana State University

Rebecca Zakrajsek, Ph.D.                      Madeline McGuire, MS-c
Indiana State University                      Indiana State University

Adam Simpson, MS-c                            Indiana State University

Abstract

Background: The National Standards for Sport Coaches (2006) acknowledges that differences exist in athletes’ ability to tolerate heat. As such, Domain 2: Safety and Injury Prevention (S7-10), Domain 3: Physical Conditioning (S12-13), and Domain 7: Organization and Administration (S34) list expectations for coaches’ ability to recognize and respond to heat illness. However, only the American Red Cross of Greater Indianapolis (Domain 2 specific) and 13 programs are accredited by NCACE. Moreover, on-line trainings frequently used to educate novice interscholastic and recreational sport coaches provide only a cursory review of heat illness precautions, symptoms, and remedies.

Objective: The purpose of this exploratory study is to identify changes in coaches’ actual and perceived knowledge after an on-line educational intervention, as well as determine whether the educational intervention will decrease the knowledge gap.

Research Design: A pre-test/post-test design was used to identify the effect of an educational intervention on perceived and actual knowledge of sport coaches.

Participants: Coaches (n=19; male=14, female=5) were solicited via email made available by the Indiana High School Athletic Association and the Indiana Youth Soccer Association – Olympic Development Program.

Instrumentation: The Perceived Knowledge Questionnaire (five-item survey) and an actual knowledge assessment (two versions of 19-item quiz) were used to measure the coaches’ perceived and actual knowledge about the prevention, recognition, and treatment of exertional heat illnesses. Participants completed the “Beat the Heat: Be a Better Coach in Extreme Environmental Conditions” educational intervention.

Procedures: Coaches completed the on-line educational module including pre-test and post-tests evaluations of actual and perceived knowledge.
Statistical Analysis: Researchers performed three separate paired t-tests to identify the effect of the educational intervention on the dependent variables: actual knowledge, perceived knowledge, and knowledge gap. Significance was set a-prior at $p<0.05$.

Results: Participants demonstrated a significant 18.1% improvement ($t_{18}=-4.877$, $p<0.001$, ES=0.62) in actual knowledge scores. Perceived knowledge also significantly improved ($t_{18}=-2.585$, $p=0.019$, ES=0.25). Knowledge gap, the difference between actual knowledge and perceived knowledge, became significantly smaller ($t_{18}=4.850$, $p<0.001$, ES=0.63).

Conclusions: Results indicate the on-line educational intervention improved actual knowledge, perceived knowledge, and decreased the knowledge gap. Additional large scale study of this intervention is warranted.