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Barbara Battaglia  
battagliabe@yahoo.com

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## ***Comfort Level of Athletic Training Student Demonstrating Evidence-Based Practice***

Barbara Battaglia, MEd, AT; Matthew Kutz, PhD, ATC; Matthew Laurent, PhD, CSCS  
Mercy Health

Bowling Green State University, College of Human Movement, Sport and Leisure Study

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### **CONTEXT**

Evidence-based practice in athletic training is critical to the advancement of the profession and safety of patients. There is little research regarding athletic training students' confidence in applying evidence-based practice (EBP) in their educational and clinical settings.

### **OBJECTIVE**

To determine athletic training students' understanding of and confidence in performing evidence-based practice and to suggest improvements to clinical education.

### **METHODS AND PROCEDURES**

Non-experimental, exploratory and descriptive research design.

### **INTERVENTION**

The Evidence-Based Practice Knowledge and Skills Competency Scale (EBPKSCS) was developed from the required EBP knowledge and skills described in the Board of Certification (BOC) Role Delineation Study and Practice Analysis. The scale ranged from 0=strongly agree to 6=strongly disagree.

### **PARTICIPANTS**

Sixty undergraduate athletic training students from different universities; 21 males (35%) and 39 females (65%).

Seven (12%) matriculated in 2011, 27 (45%)

matriculated in 2012, and 26 (43%) matriculated in 2013.

### **DATA ANALYSIS**

Internal consistency of the EBPKSCS was measured using Cronbach's coefficient alpha. Descriptive statistics and central tendency were calculated using SPSS 17.0. Statistical significance was determined *a priori* at  $p \leq 0.05$ . An independent-sample *t*-test and one-way ANOVAs with Tukey post-hoc analysis were used to measure the differences between respondents.

### **RESULTS**

Cronbach's coefficient for EBPKSCS was  $\alpha = 0.90$ . The highest level of comfort ( $M = 1.23 \pm 0.95$ ) was *utilizing databases to find the best and most appropriate evidence to answer clinically-relevant questions*. The lowest levels of comfort ( $M = 2.32 \pm 1.27$  and  $M = 2.32 \pm 1.42$ ) were *describing and differentiating the types of research, components, and levels of research evidence, and ability to describe the differences between narrative reviews, systematic reviews, and meta-analyses*, respectively. There were no significant differences between sexes. There were several differences according to matriculation year (i.e., experience) of students. Less experienced students were more confident in *using EBP to aid clinical decision making* ( $F(2, 57) = 6.57, p = 0.003; M = 1.12 + 0.86$  to  $M = 2.86 + 0.9$ ). However, more experienced students were more comfortable *describing a systematic approach through review and*

*application of research* ( $F(2,57)=6.17$ ,  $p=0.004$ ;  $M=1.0 \pm 0.82$  to  $M=2.62 \pm 1.27$ ), were more comfortable in the *appraisal of quality of research* ( $F(2,57)=4.67$ ,  $p=0.013$ ;  $M=1.63 \pm 0.74$  to  $M=2.65 \pm 1.57$ ), and were more comfortable *explaining theories of clinical outcomes assessments* ( $F(2,57)=6.42$ ,  $p \leq 0.003$ ;  $M=1.43 \pm 0.79$ ,  $M=1.7 \pm 0.67$ ,  $M=2.54 \pm 1.24$ ). Finally, students who averaged 16+ hours per week in their clinical setting were significantly more confident than those with less clinical hours per week ( $F(3,56)=2.83$ ;  $p=0.046$ ;  $M=1.87 \pm 1.43$  to  $M=2.92 \pm 1.32$ ).

## **CONCLUSIONS**

Overall, students claim to be generally comfortable with their understanding and application of EBP. Students are least comfortable with describing and identifying the differences between types of research and are most comfortable with using research databases. More experienced students reported higher levels of comfort with several EBP concepts, except using EBP for treatment and care suggestions. Students who were more clinically involved reported being more confident in EBP competencies.

**Key Words:** *Evidence-based practice, athletic training students, clinical education.*