



A Nutritional and Physiological Comparison Amongst Intercollegiate American and British Football Players

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ABSTRACT

Purpose: To compare performance variables and nutritional knowledge between NCAA DI and British Universities American Football League (BUAFL) athletes. **Method:** Subjects consisted of 27 BUAFL (20.0±1.3yrs) and 99 NCAA (20.0±1.4yrs) athletes. Collected data consisted of the following: ht, wt, % fat, vertical jump (VJ), 1RM bench press (BP) and squat (SQ) and nutritional knowledge. **Results:** From a total of 70 comparisons made, significant ($p<0.05$) differences were observed in 47, with NCAA DI athletes scoring higher in 92% of these. Body wt and % fat of the BUAFL athletes were significantly lower ($p<0.001$) than those of the NCAA athletes. BUAFL athletes were significantly outperformed by the NCAA athletes in the VJ, BP and SQ by averages of 24%, 40% and 43% respectively. The BUAFL athletes scored significantly higher than the NCAA athletes in the nutritional knowledge questionnaire. **Discussion:** The differences observed made clear the vast diversity in fitness parameters that exists between British and American collegiate football athletes competing respectively at the highest level. The data reported serves as a reference point for coaches in the NCAA, BUAFL and other international leagues. It also highlights the nutritional misconceptions that exist amongst collegiate football athletes.

INTRODUCTION

The British Universities American Football League (BUAFL) and the American NCAA Division I, currently represent the highest level of collegiate competition in Great Britain and the US. The extent, to which the two populations differ in competitive experience, anthropometry, performance, and nutritional awareness, is recognised but lack of research has hindered any definitive answers. The availability of resources differs considerably between the two leagues. Throughout the NCAA Division I, substantial funds are allocated to both athlete recruitment and strength and conditioning programs. Such funding is rare, if not unheard of in the BUAFL. Due to the prior absence of research on British collegiate American football athletes, the purpose of this study was twofold: to establish both anthropometric and performance test differences, as well as, to expose nutritional knowledge disparities between NCAA Division I and BUAFL athletes.

METHODS

The study sample was composed of 27 BUAFL athletes (20.2±1.3yrs) and 99 DI athletes (20.0± 1.4yrs). Following IRB approval, DI athletes' data was provided via the head strength and conditioning coach. Physical measures included ht, wt, %fat, 1RM bench press (BP) and squat (SQ), vertical jump (VJ). Nutritional knowledge was assessed through a 12 item Likert style survey, divided into macronutrient, micronutrient and supplement subcategories. Items were designed to assess both fundamental knowledge of nutrition as well as more recent research claims in order to determine how well nutritional information has infiltrated collegiate American and British football.

RESULTS

BUAFL athletes had significantly less ($p<0.001$) competitive football experience than NCAA (2 ± 2 yrs vs. 10 ± 3 yrs). Of a total of 56 anthropometric and performance comparisons, NCAA athletes were significantly superior in 75%. Despite similar ht and % fat, BUAFL athletes exhibited a significantly lower body mass and FFM. On average, NCAA athletes were significantly superior in the BP, SQ, and VJ to the BUAFL athletes (Fig. 1-2). BUAFL athletes outperformed NCAA athletes in nutritional knowledge with NCAA athletes failing to significantly do better on any item.

CONCLUSIONS

The primary finding of the study was the overwhelming superior results shown by the NCAA Division I team, with 92% of all significant differences in favour of the American athletes. Throughout the anthropometric and performance comparisons, BUAFL athletes failed to show a significant superiority in any of the variables investigated. Conversely the NCAA athletes showed inferior knowledge in nutritional knowledge. These data serves as a reference point, both for coaches in NCAA and the BUAFL. It allows them to cross compare their athletes to collegiate footballers inside and outside of the NCAA, which at present sets the 'gold standard'

Figure 1. Anthropometric comparisons between NCAA and BUAFL football players at all positions.

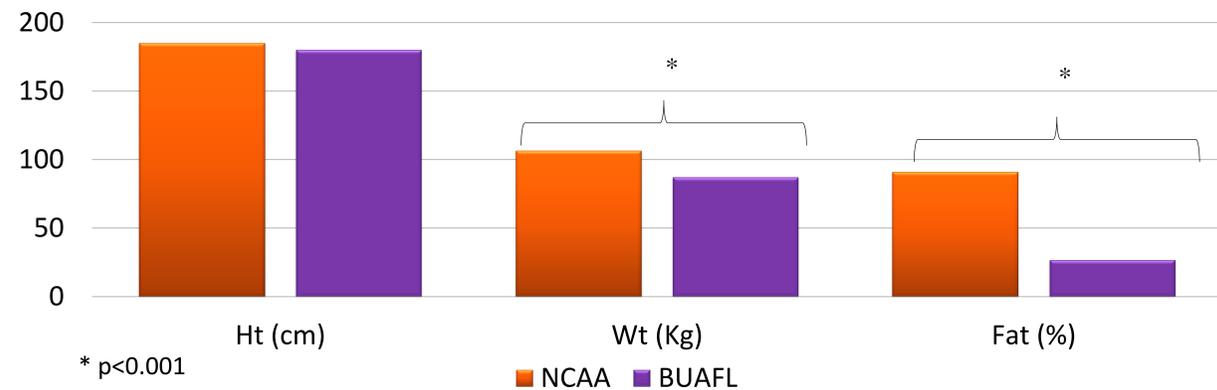


Figure 2. Performance comparisons between NCAA and BUAFL football players at all positions.

