Relationship Between General Nutrition Knowledge and Dietary Quality in Elite Athletes

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Abstract

This study investigated the association between general nutrition knowledge and dietary quality in a convenience sample of athletes (≥ state level) recruited from four Australian State Sport Institutes. General nutrition knowledge was measured by the validated General Nutrition Knowledge Questionnaire and diet quality by an adapted version of the Australian Recommended Food Score (A-ARFS) calculated from food frequency questionnaire data. Analysis of variance and linear modelling were used to assess relationships between variables. Data: mean (Standard Deviation). A total of 101 athletes (Males: 37; Females: 64), 18.6 (4.6) years were recruited mainly from team sports (72.0%). Females scored higher than males for both nutrition knowledge (Females: 59.9%; Males: 55.6%; p=0.017) and total A-ARFS (Females: 54.2% Males: 49.4%; p=0.016). There was no significant influence of age, level of education, athletic calibre or team/individual sport participation on nutrition knowledge or total A-ARFS. However, athletes engaged in previous dietetic consultation had significantly higher nutrition knowledge (61.6% vs. 56.6%; p=0.034) but not total A-ARFS (53.6% vs. 52.0%; p=0.466). Nutrition knowledge was weakly but positively associated with total A-ARFS (r=0.261, p=0.008) and A-ARFS vegetable sub-group (r=0.252, p=0.024) independently explaining 6.8% and 5.1% of the variance respectively. Gender independently explained 5.6% of the variance in nutrition knowledge (p=0.017) and 6.7% in total A-ARFS (p=0.016). Higher nutrition knowledge and female gender were weakly but positively associated with better diet quality. Given the importance of nutrition to health and optimal sports performance, intervention to improve nutrition knowledge and healthy eating is recommended, especially for young male athletes.