

# Nutrition Knowledge in provincial academy rugby athletes in New Zealand

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## Introduction

Nutrition education and knowledge are known factors that can influence dietary intake in athletes. Sport nutrition practitioners can emphasize the importance of certain nutrition practices but the uptake by athletes is variable, depending on the environment in which the information is given. In New Zealand, there are unique developmental rugby academies, the goal of which is to provide young players with coaching support, professional level programming and access to facilities to prepare individuals for professional level play. Despite the inclusivity of the programmes, nutrition support is minimal. Due to the unusual demands of the developmental athlete's environment, as the athletes are managing training and playing at the local club level, and also working, studying, or have other high demand obligations, nutrition guidance for recovery is paramount. As such, academy rugby athletes will require specific guidance due to the high training volumes, specificity around body composition, and on-pitch demands. Furthermore, food availability, financial, and social constraints are likely to influence nutritional timing and food choices.



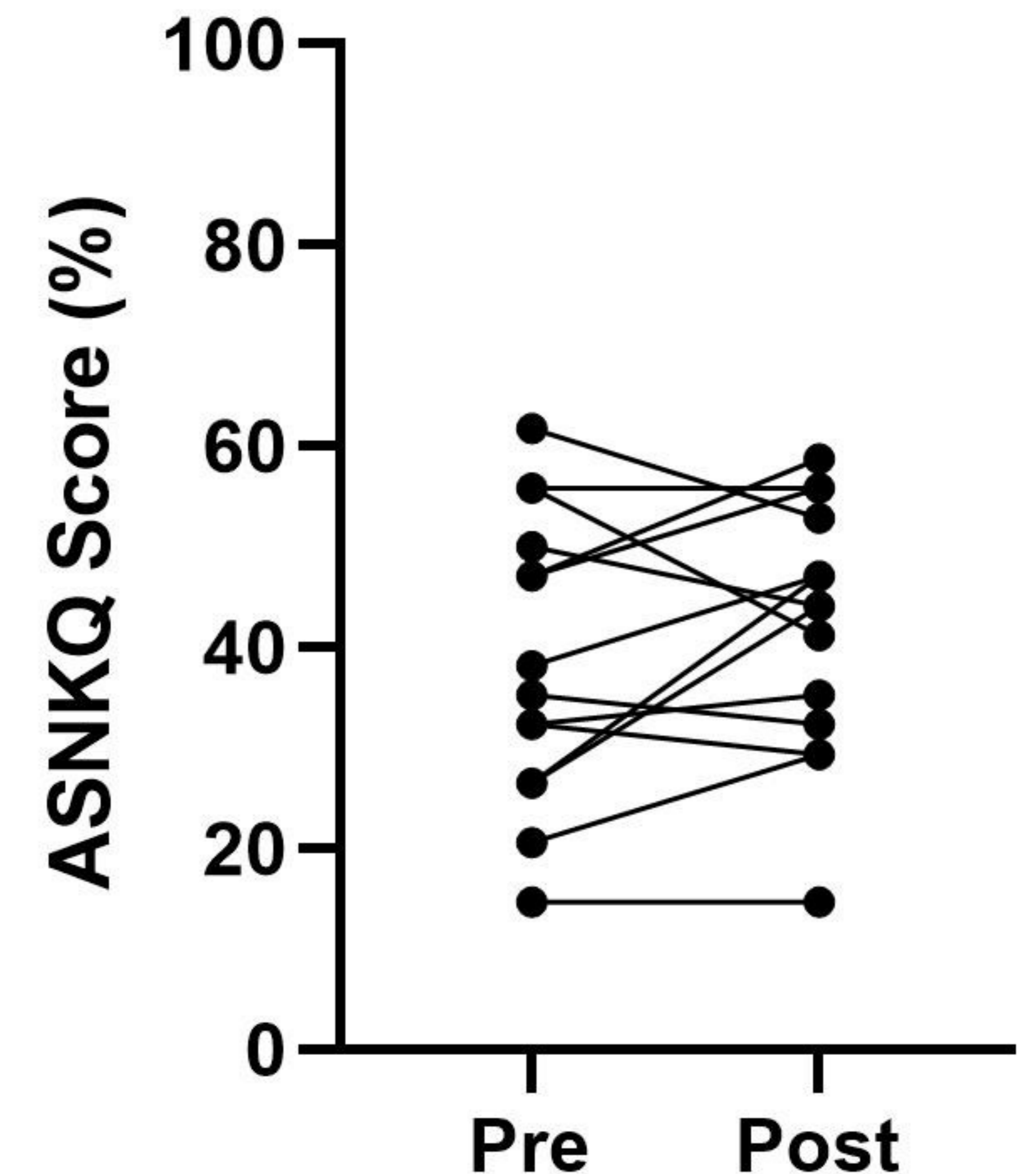
## Materials and Methods

Fourteen provincial academy rugby athletes (age:  $20.3 \pm 1.5$  y; body mass:  $104.2 \pm 17.2$  kg; height:  $186.3 \pm 9.0$  cm) from a single academy engaged in a 4-week nutrition support programme led by a certified nutritionist to provide the nutritional support that was otherwise lacking. The programme was part of a larger project aimed at improving basic dietary practices in the Target population and consisted of a single 60-minute education group seminar, individual 15-minute consultations, regular cellular and in-person contact and provision of educational pamphlets detailing how to structure and cook appropriate meals. Nutrition knowledge was measured pre- and post-intervention using the validated Abridged-Sports Nutrition Knowledge Questionnaire (ASNKQ)(Trakman et al, 2018).

## Results

Individual and mean nutrition knowledge scores are displayed in Table 1. No difference was observed between pre-intervention ( $38.9 \pm 14.4\%$ ) and post-intervention ( $42.0 \pm 12.6\%$ ) ASNKQ scores ( $p=0.26$ ). Pre- and post-intervention scores were classified as "poor". Five individual scores decreased post-intervention whilst 2 remained the same.

Trakman, G.L., Forsyth, A., Hoyer, R. and Belski, R., 2018. Development and validation of a brief general and sports nutrition knowledge questionnaire and assessment of athletes' nutrition knowledge. Journal of the International Society of Sports Nutrition, 15(1), pp.1-8.



## Conclusions

Nutrition knowledge did not improve in response to the nutrition support programme. Additionally, nutrition knowledge scores of the cohort were classified as "poor" however large intra- individual variation was apparent in the athletes. Particularly at developmental levels, nutrition knowledge may be inadequate and many factors can negatively influence dietary choices for health and performance. This highlights the importance of providing consistent and individual nutrition support and education sessions to athletes.