



Nutritional Knowledge of Elite Youth Rugby League Players



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Introduction

- Rugby League is physically demanding and requires athletes to adjust nutritional habits to accommodate these stressors.
- Though the sport is well established nutritional guidelines are not as well recognized.
- Research has shown that even professional athletes are known to be below the mark with their dietary intakes (Lundy, O'Connor, Pelly, & Caterson, 2006).
- It is important that athletes meet requirements in order to aid recovery and assist performance levels.
- Though the manipulation of ones diet to meet sporting demands is important, athletes are recommended to adhere to general guidelines to support health and well being (Spendlove et al., 2011)
- These guidelines are especially important to certain demographics such as youth athletes who may be going through pre-adolescence and maturation (Boisseau et al., 2007)
- The literature examining nutritional understanding of young athletes is limited and competency levels are unknown.

Purpose

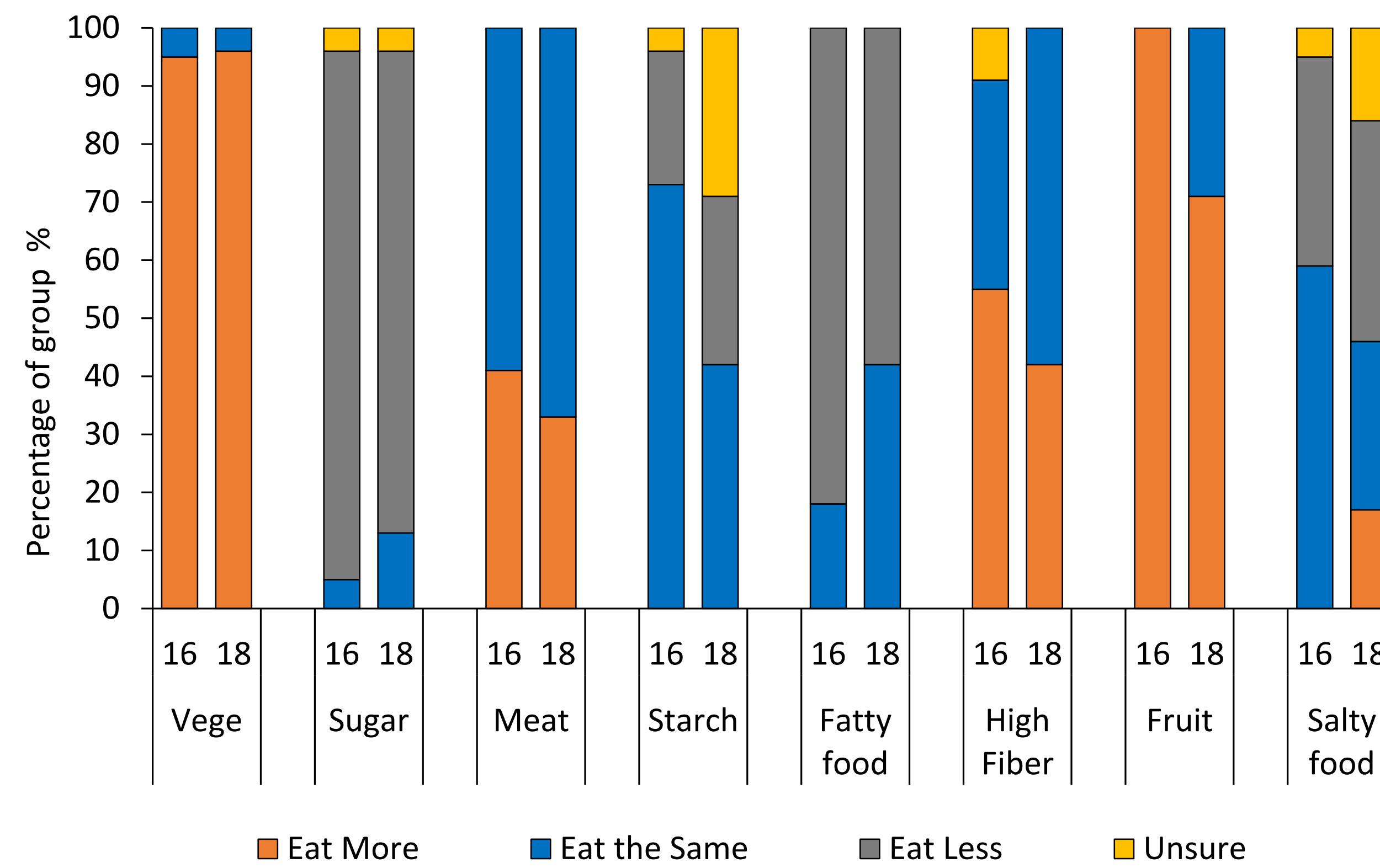
The current study examined the nutritional knowledge of elite youth rugby league players. The groups were separated by age (under 16's and under 18's) and compared internally as well as with literature to contextualise findings.

Method

Participants - 46 elite youth rugby league players in attendance of a high performance camp ran by the New Zealand Rugby League association.

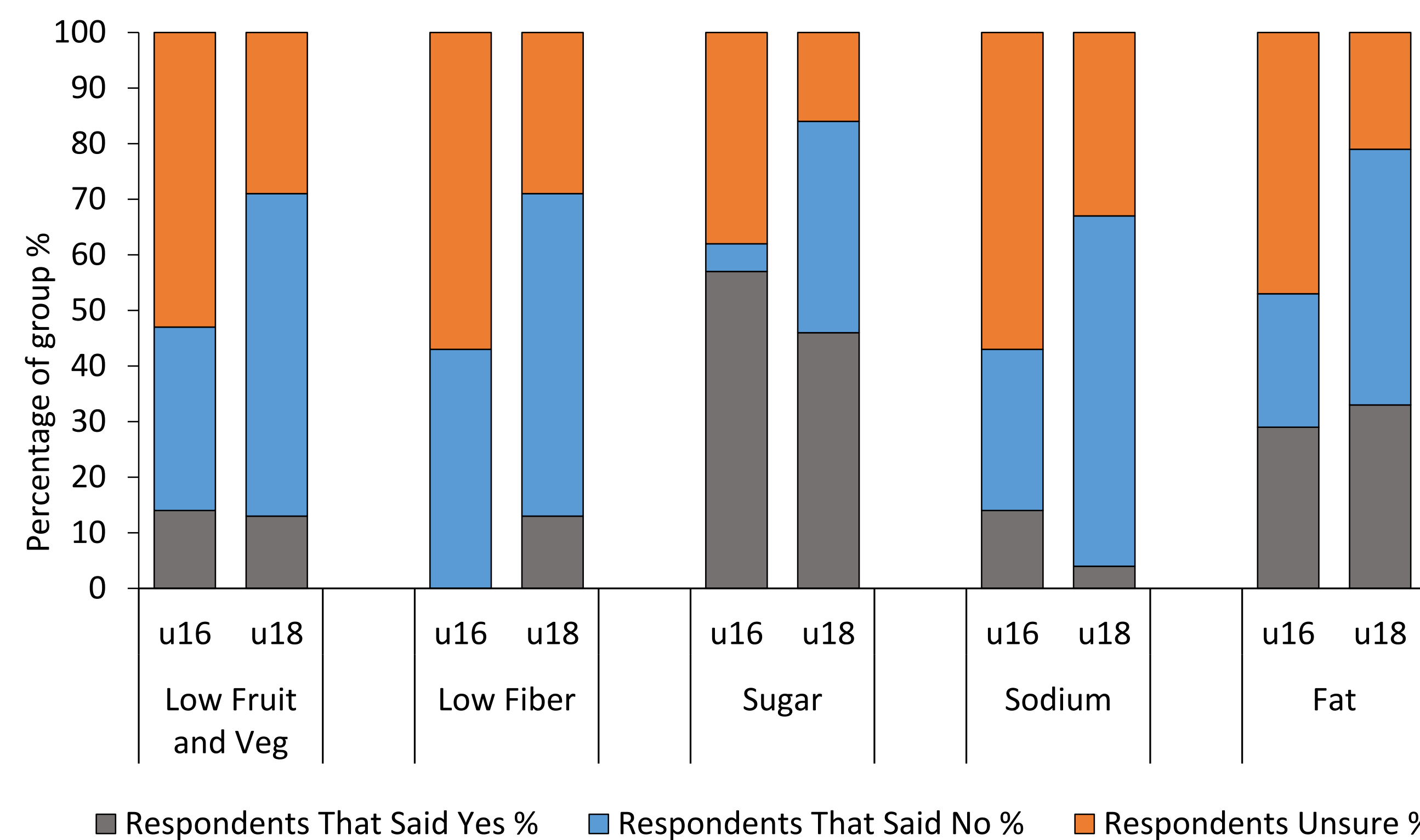
Protocol - athletes were split into 4 groups (two under 16 and two under 18). Managers of each group supervised athletes while they filled in questionnaire to the best of their ability. Questionnaires were completed prior to Nutritional seminar to ensure current knowledge was captured.

Questionnaire - Nutritional knowledge was assessed using the Nutrition Knowledge Questionnaire (Parmenter & Wardle, 1999). This has been successfully implemented in similar studies assessing professional sporting population (Spendlove et al., 2011).



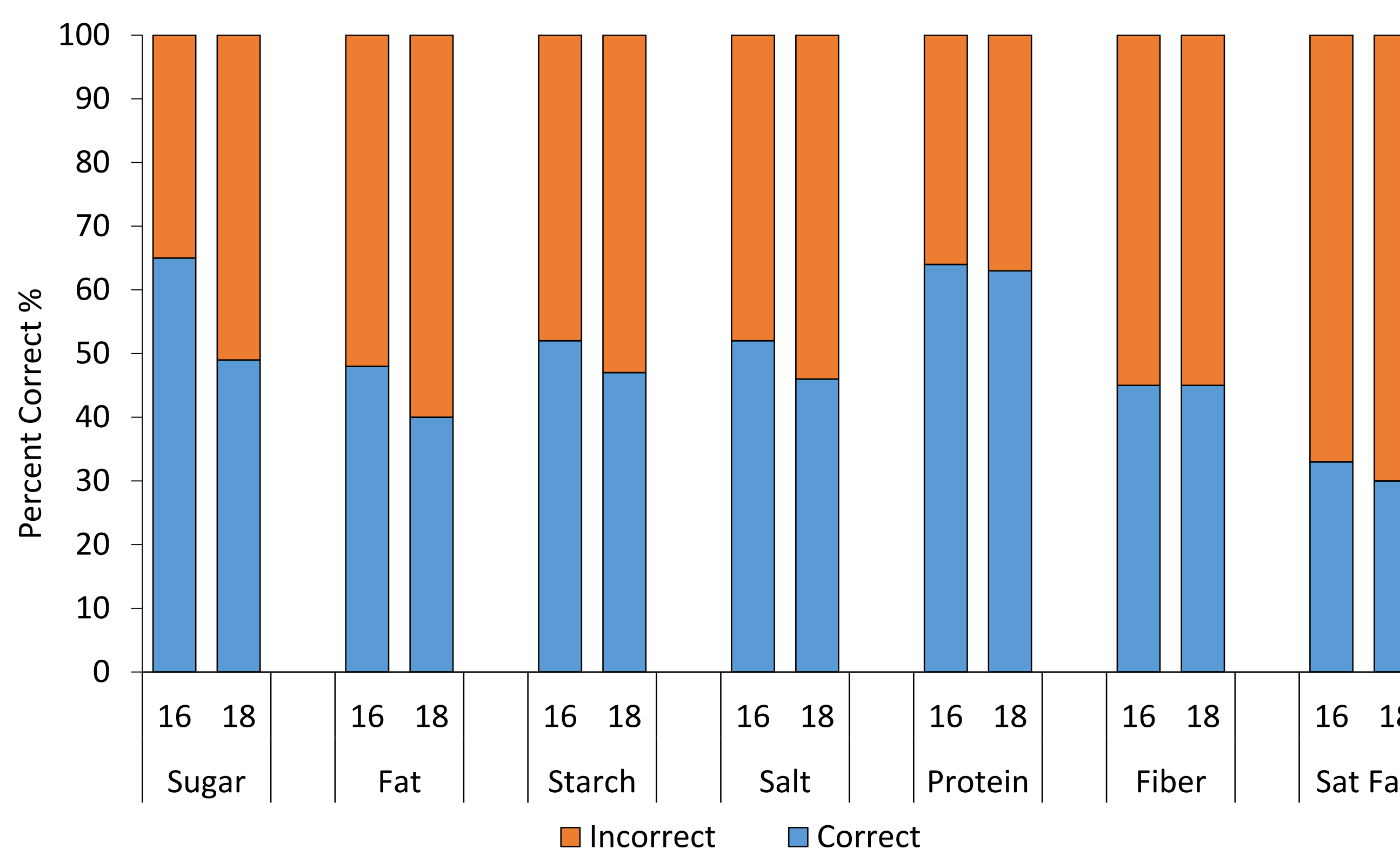
Expert Advice

Figure 1 shows that the majority of individuals had a fair perception of the recommended intake quantities of certain food groups in relation to how much people are consuming. The 16's managed an overall mean correct answers of 60%, which was 5% higher when compared with the 18's who achieved 55%. The highest correct response rate was 100% by the 16's reporting that the perceived advice is to eat more fruit; the lowest (0%) was shared by both 16's and 18's with no recorded correct answers of perceived advice regarding the intake of starch.



Food Grouping

Sugar had the highest reported awareness with 57% of 16's and 46% of 18's. The lowest value was 0 which the 16's reported in relation to diseases associated with a low fiber intake. Participants attempted to state a linked illness only if their response to primary question was yes. The 16's demonstrated greater knowledge integrity for intakes concerning Fruit and vegetables (5%), sugar (48%), sodium (14%) and fat (29%), in comparison with the 18's values of 0%, 33%, 4%, and 21% respectively



Health and Disease

Figure 2 displays more of the 16's cohort being superior in dietary knowledge for sugar (65%), fat (48%), and starch (52%) components against values of 49%, 40%, and 47% being returned respectively for the under-18 group. Furthermore, higher group percentage knowledge was returned in favor of the 16's for salt (52%), protein (64%), and saturated fat (33%) in comparison to values of 46%, 63% and 30% for the under-18's respectively, whilst fiber knowledge was identical for both age groups (45%).

Discussion

The U16's reported a higher overall mean (43%) when compared with the U18's (39%). In comparison to similar literature both groups scored relatively poorly. The U16's outperformed the U18's in all of the sections analyzed, scoring 60% in the advice from experts, 37% in food grouping and 31% in the health and disease section compared to the U18's who scored 55%, 35%, and 29% respectively. Answers pertaining to food and nutrients such as sugar, protein, fat, fruit and vegetables were answered with the most competency. New Zealand's high rates of diabetes and obesity (Marshall, Scragg, & Bourke, 1988; Coppell, Mann, Williams, & Parnell, 2013) and commercial advertisement such as the use of protein for muscle building, or 5+ servings of fruit and vegetables for health and well being are thought to be attributing factors for the popularization of these nutritional components.

Conclusions

In conclusion the U16's showed greater nutritional knowledge when compared with the U18's, though both cohorts performed poorly in comparison with populations in similar studies. Athletes understand the advice pertaining to certain food groups however, their understanding of food content, and the health consequences associated with certain foods is poor.

Practical Applications

The connection between the advice, food grouping and health and disease sections needs to be addressed. Youth athletes also need to be encouraged to adopt diets that can accommodate for the additional demands of their activity of choice. Similar methods such as commercial advertising that have proven affect on nutritional knowledge could be a tool to help drive nutritional understanding.

References

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