

A Study on Gender Differences in Food Habits and Sport Performance among Secondary School Boys and Girls in Sri Lanka

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Introduction

Sri Lankan Sport Bodies are searching for new strategies to improve performances of men and women in sports competitions. It is also found that there has been considerable progress in sport performances in secondary schools in recent years.

According to the Department of Nutrition of the Australian Institute of Sports (AIS), a sport activity can be divided into three main periods (phases) namely the pre-exercise period, period during exercise, and post-exercise period.

This research focuses on the food habits and sport performance of teenagers in secondary schools of Sri Lanka. The main objectives of the research were to identify the salient differences in food habits of students at different periods of a sport activity and to identify gender differences in food habits and sport performance among secondary school boys and girls.

Methodology

A descriptive survey method was adopted to identify the significant differences of the food habits of students. The research was limited to students who performed well in sports in secondary schools.

The method of situation sampling (non-randomized) was used to select 10 secondary schools in the Kandy District. From these 10 schools, a sample of 100 (N=100) students were selected including 50 girls and 50 boys who were sportsmen and women between the ages of 17 and 19 years.

Data were obtained from a questionnaire, which was prepared according to the AIS Department of Sports Nutrition standards. (www.ais.org.au/nutrition) The questionnaires were distributed to the sample of students selected and their responses were obtained.

The descriptive method and two major statistical methods, viz: binominal probability test and Pearson's chi-square test, were used to

analyze data. These tests were used to analyze the significance of students' food habits at three different periods of sport activity. The analysis was used to identify gender differences in food habits, and to assess sport performances among secondary school boys and girls.

Results

According to the binominal test, girls who had good food habits in the pre-exercise period showed a higher level of performance than boys of a similar category (For breakfast, lunch and dinner, carbohydrate, protein, snack, and drinks intake, and for supplementary diets P values are less than 0.05). Regarding water intake no significant difference ($P > 0.05$) was recorded. In the period during exercise, girls who followed good food habits (in carbohydrate and water intake) showed higher levels of performance than boys ($P < 0.05$). However, no significant difference in performance in other drink habits ($P > 0.05$) was observed. After the exercise, a significant difference in performance was shown by girls than boys with a protein intake and post exercise interruption. No significant difference was recorded regarding carbohydrate and water intake.

The significant difference of gender and sport performance was calculated for indoor and outdoor games among boys and girls using Pearson's chi square test. The test shows P value = 0.839. According to the above chi square test there was no significant difference between genders with regard to performance in indoor games and outdoor games.

This study also revealed that in the pre-exercise period 95%, 70% and 100% of the participants reported having breakfast, lunch and dinner respectively. Skipping breakfast was not statistically linked to gender. Other studies have shown that consumption of breakfast has some influence on meal and snack patterns. For example, adolescents who skip breakfast consume a hot lunch less frequently than adolescents who have breakfast on a daily

basis. (Cavadini *et al.*, 1999; Narring and Michaud, 1995).

There is a significant difference in lunch habits among boys and girls (62% vs. 89% with $P < 0.05$). The research found no difference in frequency of consumption of meals and snacks between girls and boys, and as expected the directory survey shows that the mean daily energy intake is lower among girls than among boys (Narring and Michaud, 1995).

Responses of students to open ended questions revealed that the food habits of students were influenced by parents, teachers, coaches, peers, cultural factors and their own psychological factors. Meanwhile research revealed that the food habits of both boys and girls were found to be quite traditional, whereby they tend to consume traditional foods.

Discussion

According to the chi square test and binominal probability test the results indicate mixed results (both significant difference and no

significant difference) in food habits and sport performance among girls and boys.

Conclusions

The study revealed that there is a significant difference in food habits at the pre exercise period, during the exercise period and post exercise period between girls and boys in some food habits components. The association between sport performance and food habits was significantly higher among girls than boys.

References

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