Sport and Exercise Nutritionists’ Perceptions of Food Safety Risks Among Athletes

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Introduction

Although regular moderate exercise is associated with reduced incidence of illness, continuous, prolonged and high intensity exercise an intense exercise causes temporary perturbations immune dysfunction, known as the “open window” of susceptibility. The increased susceptibility to infection is associated with many factors that impact immune function such as exposure to new pathogens during foreign travel; stress; lack of sleep; and mental stress. 

Methods

Data collection: Sports nutritionists (n=22) working with elite athletes, participated in a series of focus groups (n=6). Each group discussion followed a structured route and included perceptions of food preparation/consumption associated with elite athletes (home/training/hospital/competing) and competing to maximise nutrition. Additionally, food safety concerns were explored. Performance Nutritionist reported having observed food safety concerns of concern, particularly when visiting athletes’ houses (Figure 3). 

The role of sports nutritionists to inform athletes of potential food safety risks and to enable adaptation and implementation of risk-reducing behaviours is fundamental to maintaining team effectiveness and to assist athletes in avoiding the adverse effects of illness.  

The recommended food safety practices to reduce the risk of foodborne illness include regular hand washing, cross-contamination, refrigeration, and food consumption decisions, which can reduce risks. Although all of these may be important to reduce the risk of foodborne illnesses among athletes, there is a need to explore specific food safety risks that exist among athletes due to the unique relationship with food and the consumption habits adopted during training and competing to maximize nutrition.

Results

Meal preparation and consumption during training

Food safety during training

Potential food safety risks arising from the unique relationship of athletes with food were explored. Performance Nutritionist reported having observed food safety concerns of concern, particularly when visiting athletes’ houses (Figure 3).

Figure 3. Performance Nutritionist observations of athletes food safety during training

Food safety when travelling overseas

Access to appropriate food preparation and storage facilities when athletes are travelling can be particularly critical, as for competition and training activities identified as problematic situations that may increase the risk of foodborne illness. 

While travelling for competing at events abroad, in competition in foreign travel, food safety concerns were identified. Food safety practices included washing hands, ensuring food safety. 

As indicated in Figure 4, the Performance Nutritionist who participated in the focus groups had first-hand experience of athletes travelling to overseas destinations whilst travelling overseas to compete. Participants also shared the food safety advice that they would give athletes whilst competing abroad. Although the food safety culture of events would be dependent on the profile and funding of the event, food safety mechanisms may not always exist in smaller events.

Figure 4. Performance Nutritionist experiences of athletes food safety attitudes and practices during training

Food safety awareness when travelling to overseas competitions

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The study identified potential food safety malpractices unique to athletes which may increase the risk of foodborne illness. Consequently, there is a need for research to determine the food safety knowledge, attitudes, perceptions and self-reported behaviours that exist among athletes which relate to food safety.

The study has also identified the importance of sport coaches in influencing athlete behaviour, consequently given the relationship between athletes and coaches, there is a need to explore the perceptions of coaches regarding foodborne illness and the importance of food safety.

Furtheman there is an identified need to explore the food safety training and education available to facilitate the delivery of food safety advice, information to athletes via sports nutritionists.

Significance of study

The study has identified potential food safety malpractices unique to athletes which may increase the risk of foodborne illness. Consequently, there is a need for research to determine the food safety knowledge, attitudes, perceptions and self-reported behaviours that exist among athletes which relate to food safety.

The study has also identified the importance of sport coaches in influencing athlete behaviour, consequently given the relationship between athletes and coaches, there is a need to explore the perceptions of coaches regarding foodborne illness and the importance of food safety.

Furthermore there is an identified need to explore the food safety training and education available to facilitate the delivery of food safety advice, information to athletes via sports nutritionists.

References

10. Seabrooks G, Shulman A, Shulman J. Food safety when travelling to overseas competitions.