HONG KONG SPORTS INSTITUTE 香港體育學院

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Recovery Nutrition Knowledge of Hong Kong Athletes

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Introduction

Optimal recovery after exercise is crucial for enhancing performance in subsequent training sessions or competition, particularly for athletes who engage in two or more sessions each day. There are many modalities that can aid recovery such as hydrotherapy, massage, and sleep. Recovery nutrition is essential for enhancing physiological adaptations to training and competition that will, in turn, optimize performance. Although current sports nutrition guidelines provide recommendations for the timing and quantity of consumption of nutrients to optimize recovery issues such as refueling, rehydration, repairing damaged tissues and adaptation[1-2], many athletes do not follow these guidelines in their daily training.

Objective

The purpose of this study was to evaluate the recovery nutrition knowledge and the factors affecting their recovery of Hong Kong athletes.

Methodology

A total of 723 (male = 432; female = 291) athletes of various sports completed a questionnaire identifying their perception of different recovery strategies, their level of recovery nutrition knowledge and factors affecting their nutrition recovery strategies.

Results

The majority of athletes (86.6%) used at least one recovery strategy after exercise; however among these respondents only 16.2% ranked that nutrition was an important recovery strategy. Most athletes (52.1%) stated that cool down and stretching was the most important recovery strategy (Figure 1). Less than 70% athletes used nutrition as a part of recovery strategy and among these respondents 88% consumed food or nutritional supplements within 60 minutes after training or competition. About 32% athletes stated that fluid was the most critical nutrient to recovery followed by electrolytes (26.0%) (Figure 2) which was also reflected by the use nutritional supplements for recovery; about 43% athletes used sports drinks for recovery, followed by recovery drinks (23.4%) (Figure 3). The common reasons that prevented athletes from eating after exercise were tiredness (36.7%) and no appetite (27.5%) (Figure 4). There were 20.8% of athletes that were not concerned about anti-doping issues when using nutritional supplements for recovery.

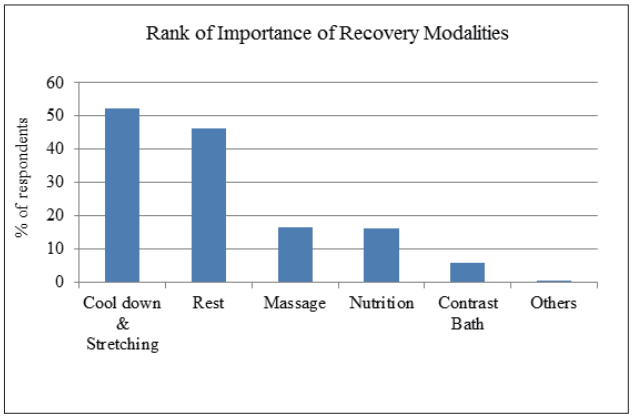

Figure 1. Rank of Importance of Recovery Modalities

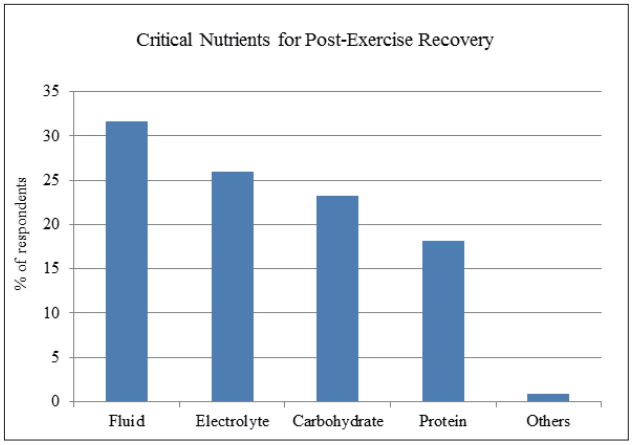

Figure 2. Critical Nutrients for Post-Exercise Recovery

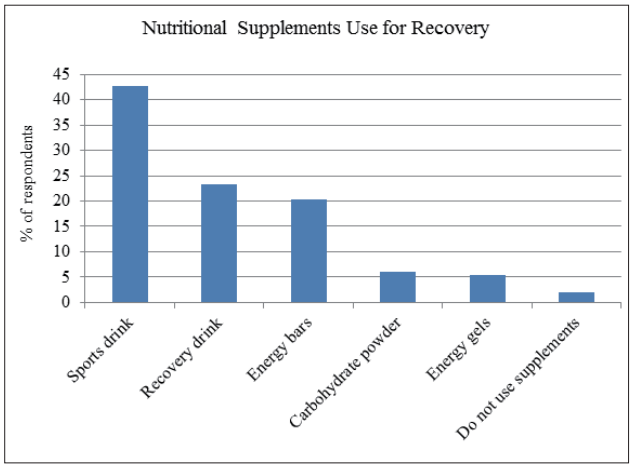

Figure 3. Nutritional Supplements Use for Recovery

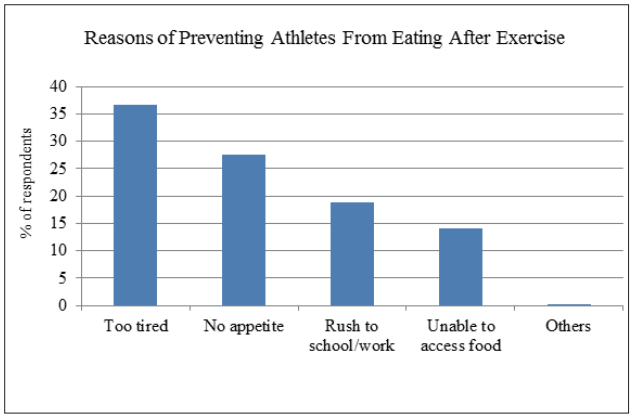

Figure 4. Reasons of Preventing Athletes From Eating After Exercise

Discussion and Conclusion

Hong Kong athletes were unaware of the importance of nutritional recovery strategies and the majority of athletes only focused on fluid replacement after exercise. However, numerous studies have shown that the timing and composition of post-exercise meal is crucial for recovery especially when athletes engaged two or more sessions each day[1]. The proper post-exercise meal or snack should be carbohydrate rich (1 – 1.5g/kg body weight), moderate amount high quality protein (~20g protein) with fluid (125 – 150% of fluid lost during exercise)[1-2]. Moreover, inadequate knowledge on anti-doping issues was a concern. Geyer et al.[3] examined 634 different supplements from 13 countries found that 94 (14.8%) contained undeclared steroids, banned by World Anti-Doping Agency[3]. Athletes are responsible for checking all medication and substances they use. In addition, tiredness and no appetite are common factors that may have a detrimental impact upon an athlete's ability to recover. Athletes should have well-planned nutrition strategies for pre-, during and post-exercise. Therefore, sport nutritionists need to improve the education provision of nutrition strategies for optimal recovery.

Reference

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