**Effect of Supervised Nutrition Education Programme on Elite Athletes during Preparation of Major Games**

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**INTRODUCTION:**
Nutritional strategy and characteristics are largely varied between different sports and even between teammates in accordance to their individualized nutritional goals and competition plan. Furthermore, for those return-to-play athletes who need dietary aims to meet their specific needs, sports nutritionist and dietitian can play a vital role for athletes' professional career and for their exercise performance. As early as 2003, IOC issued its global consensus on sports nutrition 2003: new guidelines for nutrition for athlete, which primarily demonstrated that the amount, composition, and timing of food. And in this programme, we majorly adopted the education slides and lectures based on the well recognized IOC consensus.

**METHODS:**
In this prospective nutrition study, sports nutrition education were conducted with 20 professional elite athletes at the baseline. Nutrition surveys were provided for four months throughout the study. Energy expenditure were estimated using a strong evidence proved HRV exercise training load monitoring system (Switzerland) and PAL reporting method. DEXA was used for monitoring body composition. Blood biochemistry profile was measured along with the education programme including CK, BUN, Testosterone, and Cortisol for exercise fatigue. Training load was calculated according to routine training including warm-up, strength conditioning, active stretching, and sport-discipline specific training.

**RESULTS:**
The largest need of nutrition is to achieve their ideally optimal body composition and to achieve quick recovery from intense exercise training. After education on foods choices, nutrition survey indicates athletes prefer to choose low fat foods than before supervision. Their bodyweight became lower by the end of major Game season. And the average weight loss was 1.49 kg for ladies and 1.68 kg for men throughout entire season (both P-values $0.05$). We also found that Fat% and BMI of female athletes were significantly decreased after four months of the intervene, meanwhile, their muscle mass and lean mass increased significantly (both P-values $0.05$). While, in male participants, we only found significantly increased muscle mass (P-value $0.05$), though the improvement of Fat% and BMI were observed from the baseline, the change was not significant (both P-values $0.05$).

**CONCLUSION:**
With nutrition education and supervision, elite athletes prefer to choose healthy foods for achieving optimal body composition and quick recovery purposes. Nutrition supervision under professional dietitian is of great value for optimal exercise performance especially during the preparation for major sport games.

**Topic:** Nutrition

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