102 - ALIMENTARY HABITS AND HIDRATION PRÉ-, DURING AND POST-TRAINING AN ON UNIVERSITY FEMALE FUTSAL TEAM, RIO DE JANEIRO

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INTRODUCTION

The Futsal or "Indoor-foot-ball" has its origins in the 30s, in Montevideo (Uruguay), where the naked floodplain began to adapt the basketball courts and salons. The teacher of Physical Education of Christian ACM Association of Young Men/Uruguay, Juan Carlos Ceriani, wrote their rules in the year of 1933, being based in the soccer, basketball, handball and water polo (FUTSAL DO BRASIL, 2009).

In Brazil, the Futsal also began in the 30th, taking as reference a publication of rules and regulations for the practice of the sport, in the Journal of Physical Education, in 1936, in Rio de Janeiro (FEDERAÇÃO MINEIRA DE FUTSAL, 2009).

Although the first rules have emerged in Uruguay, nothing has been done in that country to improve it or disclose it. It fell to the Brazilians responsibility for the growth, distribution and ordering of Futsal as sport and is therefore considered as being a genuinely Brazilian sport (FUTSAL DO BRASIL, 2009).

The characteristics of the physical performance of players in a game of soccer are different from those seen in football. In Futsal, spending energy, metabolic and neuromuscular are very high for all players, and you should monitor all these aspects of the sport, such as food, nutrition and body composition, particularly for the fat component (CYRINO et al., 2002).

The literature is sparse with regard to food and nutrition issues, however, indicates that low levels of body fat, possibly conducive to maximum yield. This is because the movements performed during the games are intensive and high energy expenditure (BELLO, 1998).

In the early stages of training, competition and after competition, the power adjusted to the needs of each athlete will provide the nutritional components necessary for the improvement of their performance (VIEBIG & NACIF, 2007).

Vimieiro-Gomes & Rodrigues (2001) describe the increase of electrolyte intake, due to losses caused by sweating, among other routes of elimination of water and electrolytes in your body is very important for the maintenance of body thermoregulation. Thus, to be preventable dehydration, hyponatremia, hyperthermia, injures among others, it is important to properly restore the body fluid with repositories for the needs of each athlete.

According Biesek et al. (2005), there are different specific strategies to determine the best prescription food and water of the athlete before, during and after training and competitions in order to optimize its performance. However, not all athletes are able to follow the recommendations and nutritional guidelines.

Thus, the present study describes the dietary habits and fluid intake in the pre-, during and post-training on an university women's Futsal team, Rio de Janeiro.

SUBJECTS AND METHODS

In September of 2008, was carried out a descriptive cross-sectional study, from primary base with 10 athletes female, with age between 19 and 28 years, volunteers, of the feminine team of Futsal of UNISUAM.

The athletes were accompanied by two nutrition students during training in court, inserted in the project of university extension Nutresporte, which happened twice a week, on Mondays and Wednesdays, from 06:30 p.m. to 08 p.m.; and nutrition service, of the Clinic School Amarina Motta (CLESAM), once a week (Monday), where the service were performed individualized nutrition.

A formulary developed for the athletes' nutritional attendance in court was applied before and after the training for the students, aiming at to detect mistakes in the alimentary ingestion and the athletes' hydration, for subsequent nutritional orientation.

The variables selected for the study were: age (years), total body mass (TBM) (Kg), height (H) (m), alimentary habits before the training (meal type: snack or lunch; local; and consumed food) and hydration (pré-, during and post-training).

TBM and H they were obtained being the subject in apnea situation, after a maximum inspiration (FERNANDES FILHO, 2003) with an electronic scale was used marks Filizola with capacity of 150Kg and resolution of 100g, coupled with a stadiometer (altimeter, 2.00 m), properly calibrated to obtain the measurements.

Data were typed, consolidated and analyzed by the software Excel for Windows 2007, and then explored by means of absolute and relative frequencies and measures of central tendency (average and standard deviation), values minimum and maximum from the selected variables.

RESULTS AND DISCUSSION

The athletes showed average age (years) of 22.9±1.6; average stature (m) of 1.65±0.07; and average weight (Kg) of 62.4±83.0.

Regarding meal type, it was verified that all (100%) accomplished the snack of the afternoon before the training, and 81.8% referred to have a snack on the street (Figure 1). It was detected that the foods more consumed by the athletes as snack was: cookies, peanut, "açaí" with "granola", salty of street, soft drinks and bread sandwich with cheese or cheese spread. In that study, only 25% of the athletes referred to consume appropriate foods before training.

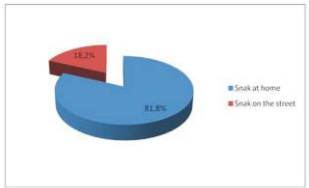


Figure 1. Place of meal pre-training by female Futsal athletes from UNISUAM, Rio de Janeiro. September, 2008.

In agreement with Viebig & Nacif (2007), in the training phase, the alimentary program should guarantee to the athlete the contribution of nutrients and enough calories as well as the schedules, the type of foods that compose the meals and the hydration. So that it achieves its maximum potential yield.

This way, until three hours before the training, the accomplishment of a small meal is guided, as the snack, being the foods: fruit juice or of soy, white bread with jelly, fruit with crumb of oats or "granola", the most suitable (MACARDLE et al., 2003).

Bacurau (2005) it indicates the carbohydrates consumption from 3 to 4 hours before the exercise, through the ingestion of meals containing from 140 to 330g. It can take to the increment of the levels of muscular and hepatic glycogen and, consequently, the improvement of the physical acting.

As for the consumption hydric pré-, during and post-training, it was detected that 36.4% athletes were hydrated before training; 100% during the training and 90.9% post-training (Figure 2).

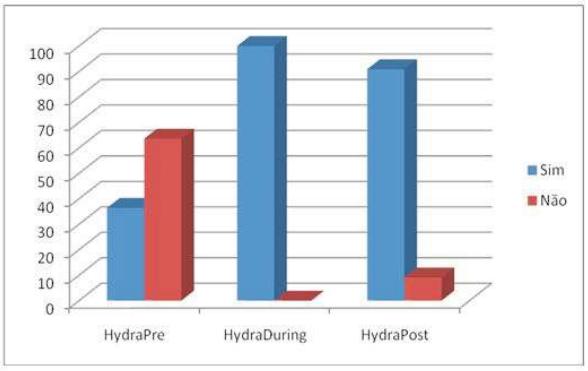


Figure 2. Hydration pre-, during and post-training carried out by female Futsal athletes from UNISUAM, Rio de Janeiro. September, 2008.

All of the athletes referred to consume water, being the average consumption before training of 120.3±103.3 ml; 460±189.7 ml (water) during; and 340±211.9 ml (water) post-training, respectively (Table 1).

Table 1. Average (±SD) values, minimum and maximum (ml), of liquids pre-, during and post-training by athletes Futsal UNISUAM. Rio de Janeiro. September, 2008.

Hydration (ml)	Average(±SD)	Minimum	Maximum
Pré-Training	120±103.3	0	200
During Training	460±189.7	200	800
Post-Training	340±211.9	0	800
Total ingested	920±329.3	600	1400

The athletes' ingestion hydric during and post-training it was larger of that observed before the training. However, same tends a gallon of water and glasses, besides a drinking fountain in the proximities in court, many of them were not hydrated or they ingested little volume of water.

The literature affirms that the replacement hydric should be made in whole the training process, competition and post competition, once the appropriate ingestion of liquids reduces the harmful effects of the dehydration (PEREIRA et al., 2002).

In this sense, the Brazilian Society of Medicine in the Sport (2003) it recommends: the ingestion of approximately of 500ml of liquids two hours before the practice of an exercise; during the exercise, the athletes should begin to drink soon and in regular intervals; that the liquids are ingested in a smaller temperature than the temperature of the atmosphere (between 15 and 22ºC) and with pleasant flavor; the addition of appropriate amounts of carbohydrates and electrolytes for events with larger duration than one hour, since it doesn't harm the distribution of water for the organism and improvement the acting; the addition of sodium (0.5 the 0.7g.L-1 of water) in the rehydration solution if the exercise lasts more than one hour.

The consumption of fluids throughout the training aims to replace fluids lost through sweat, or when sweat rates are very high, how much liquid as possible. According to the Brazilian Society of Medicine in the Sports (2003), we can achieve this goal by drinking small amounts (125ml to 500ml) at a frequency of 15 min. average (SBME, 2003).

When the replacement of liquids is not enough the dehydration, whose main symptoms can be can happen: increase of the heart frequency, fatigue and disturbances in the motor control, fall of the capacity aerobics and anaerobic, carting the decrease of the muscular acting. The loss of up to 2% of water in relation to the corporal weight, it can cause the fall of the athlete's performance.

In this research, it was observed that most of the players are not properly hydrated, but also know the importance of water consumption. In Nutresporte project, one of the goals of the court monitoring of athletes is to just pass the correct information about nutrition and hydration before, during and after sports activities to improve physical performance. Another objective is to minimize the risks related to health such as dehydration, hyponatremia, injuries, among others.

Being like this, the nutrition students, with the information obtained in court so much in the period of the research as in the weekly attendance, they signaled the athletes the alimentary mistakes as well as they guided them about the healthy feeding in elapsing of the whole training.

CONCLUSION

It was conclude that many athletes, before training on the court, made for poor food choices to compose the afternoon snack and not properly hydrated. The Nutresporte project was a positive strategy for detecting and clearing up bad alimentary habits of Futsal players.

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ALIMENTARY HABITS AND HYDRATION PRÉ-, DURING AND POST-TRAINING AN ON UNIVERSITY FEMALE FUTSAL TEAM, RIO DE JANEIRO

ABSTRACT

In all sporting modality, among them Futsal, is indispensable that the contribution of nutrients assists each athlete's individual needs, seeking to optimize the allied physical income to the program of exercises. The present study describes the dietary habits and hydration in the pre-, during and post-training on an university women's Futsal team, Rio de Janeiro. In September 2008, it was realized a descriptive, cross-sectional and with primary base study with ten female athletes, aged from 19 to 28 years old, volunteers, all belonging to futsal female team from UNISUAM. A formulary was developed to make athlete's nutritional follow-up, and it was used by students of nutrition both pré-, during and post-training. Data were typed, consolidated and analyzed by the software Excel for Windows 2007, as well as explored by means of absolute and relative frequencies and measures of central tendency (average and standard deviation) from the selected variables. The athletes' average age (years) was 22.9±1.6; average height (m) was 1.65±0.07; and average body weight (Kg) were 62.4±8.3Kg. As for the meal type, it was verified that all have a snack before the training. Among athletes, 36.4% used to hydrate themselves before physical training; 100% ingest liquid drinks during training, and 90.9% hydrate themselves after training, however the amount (ml) was insufficient. The conclusion is that the athletes don't feed and do not hydrate themselves appropriately before training.

KEY- WORDS: Alimentary Habits, Futsal, Hydration

HABITUDES ALIMENTAIRES ET DE CONSOMMATION D'EAU DANS LE PRE, PENDANT ET APRÈS LA FORMATION D'UNE ÉQUIPE DE L'UNIVERSITÉ DES FEMMES FUTSAL, RIO DE JANEIRO

RÉSUMÉ

Dans tous les modalité sportive, parmi eux Futsal, est indispensable que l'apport de nutriments assiste aux besoins individuels de chaque athlète, en cherchant à optimiser le revenu physique alliée au programme d'exercices. La présente étude décrit les habitudes alimentaires et l'hydratation en avant, pendant et après la formation sur une équipe de futsal de femmes diplômées des universités, Rio de Janeiro. En Septembre 2008, il a réalisé un descriptif, transversales et avec l'étude de base primaire avec une dizaine d'athlètes féminines, âgées de 19 à 28 ans, les bénévoles, tous appartenant à l'équipe féminine de futsal UNISUAM. Un formulaire a été élaboré pour rendre l'athlète le suivi nutritionnel, et il était utilisé par les étudiants de la nutrition aussi bien avant, pendant et après la formation. Les données ont été tapé, consolidées et analysées par le logiciel Excel pour Windows 2007, ainsi que explorée par l'utilisation des fréquences absolue et relative et les mesures de tendance centrale (moyenne et écart-type) à partir des variables sélectionnées. Les athlètes 'âge moyen (années) a été de 22,9 ± 1,6; hauteur moyenne (m) était de 1,65 ± 0,07; et le poids corporel moyen (kg) étaient 62,4 ± 8,3 kg. Quant au type de repas, il a été vérifié que tous ont une collation avant la formation. Parmi les athlètes, 36,4% ont utilisé pour se hydrate avant l'entraînement physique; 100% ingèrent les boissons liquides pendant l'entraînement, et 90,9% d'hydrates eux-mêmes après l'entraînement, mais le montant (ml) était insuffisante. La conclusion est que les athlètes ne se nourrissent pas et ne l'hydrate pas eux-mêmes convenablement pré-formation.

MOTS-CLÉS: Futsal, Food Habits, Hydratation

LOS HÁBITOS ALIMENTARIOS Y LA INGESTA DE AGUA EN EL PRE, DURANTE Y DESPUÉS DEL ENTRENAMIENTO DE UN EQUIPO FEMENINO DE FÚTBOL SALA DE LA UNIVERSIDAD, RIO DE JANEIRO

RESUMEN

En cada deporte, incluyendo el Fútbol Sala es esencial que el aporte de nutrientes satisfacer las necesidades individuales de cada atleta para optimizar el rendimiento físico, junto con el programa de ejercícios. Este estudio tuvo como objetivo describir los hábitos dietéticos y la ingesta de líquidos en el pre, durante y después del entrenemiento de un equipo femenino de Fútbol Sala de la Universidad, Río de Janeiro. Se realizó un estudio descriptivo, transversal primaria con 10 atletas, con edades comprendidas entre 19 y 28 años, las mujeres voluntarias del equipo de fútbol sala UNISUAM, en septiembre de 2008. Una forma para vigilar el estado nutricional de los atletas en la cancha fue aplicada antes, durante y después del

entrenamiento para los estudiantes de la nutrición. Los datos fueron digitalizados, consolidar y analizar el uso de Excel para Windows 2007, y su exploración a través de las frecuencias absolutas y relativas, y medidas de tendencia central (media y desviación estándar) de variables seleccionadas. Los atletas tenían una edad media (en años) del 22,9 ± 1,6, media (de altura) de 1,65 ± 0,07, y el peso medio de 62,4 ± 8,3 kg. Cuanto al tipo de alimento se verificó que la merienda és realizado por 100% de las atletas, antes del entrenamiento. Se detecto que 36,4% de las atletas se hidratavan antes del entrenamiento físico; 100% consumian liquidos durante el entrenamiento y 90,9% se referian hidratar después del entrenamiento, pero el volumen (ml) era insuficiente. Se concluye que las atletas no comen e hidratar correctamente antes del entrenamiento.

PALABRAS CLAVES: Fútbol Sala, Hábitos Alimentarios, Hidratación

HÁBITOS ALIMENTARES E INGESTÃO HÍDRICA NO PRÉ, DURANTE E PÓS-TREINO DE UMA EQUIPE FEMININA DE FUTSAL UNIVERSITÁRIO, RIO DE JANEIRO

RESUMO

Em toda modalidade esportiva, dentre elas o Futsal, é indispensável que o aporte de nutrientes atendam as necessidades individuais de cada atleta, visando otimizar o rendimento físico aliado ao programa de exercícios. O presente estudo objetivou descrever os hábitos alimentares e a ingestão hídrica no pré, durante e pós-treino de uma equipe feminina de Futsal universitário, Rio de Janeiro. Realizou-se um estudo descritivo, transversal, de base primária com 10 atletas mulheres, com idade entre 19 e 28 anos, voluntárias, da equipe feminina de Futsal da UNISUAM, no mês de setembro de 2008. Um formulário elaborado para o acompanhamento nutricional dos atletas em quadra foi aplicado antes, durante e depois do treino pelas alunas do curso de nutrição. Os dados foram digitados, consolidados e analisados no programa Excel for Windows 2007, sendo sua exploração por meio das freqüências absolutas e relativas, e das medidas de tendência central (média e desvio padrão) das variáveis selecionadas. As atletas apresentaram a média de idade (em anos) de 22,9±1,6; estatura média (m) de 1,65±0,07; e peso médio de 62,4±8,3Kg. Quanto ao tipo de refeição, verificou-se que todas lancham antes do treinamento. Detectou-se que 36,4% das atletas se hidratavam antes do treinamento físico; 100% durante o treinamento e 90,9% após o treinamento, contudo a quantidade (em ml) era insuficiente. Conclui-se que as atletas não se alimentam e hidratam adequadamente antes do treinamento.

PALAVRAS-CHAVE: Futsal, Hábitos Alimentares, Hidratação

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