

Research Article

Research on Rationalization of Basketball Player Nutrition Dietary Pattern

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Abstract: Reasonable nutritional dietary pattern is the good protection which can promote hoopster fatigue restoring, enhance exercise training effect and promote sport performance. This study analyzes necessity and significance of rationalizing research of hoopster nutritional dietary pattern by the summary of hoopster nutritional dietary pattern. And it concludes insufficient and drawback which current our country hoopster nutritional dietary pattern existing. And then it generalizes the unreasonable cause. Finally it puts forward rational countermeasure about hoopster nutritional dietary pattern from overall objective, programming level, implementation level three aspects.

Keywords: Countermeasure, dietary pattern, hoopster, nutrition, rationalization

INTRODUCTION

With the rapid development of science and technology, radical change has taken place of training idea for basketball players. It is from traditional “no tired, no training” to now “no recovery, no training”. And it discarded previous hard and cruel practice idea. More and more people have gradually realized the important position of nutritional support in training. Facing with basket positive developed trend in the world, aiming at our basketball players physiological and training characteristics, how to work out rational nutritional dietary pattern to enhance training effect and promote our country basket competitive integrate level is one of the research topic which should be solved instantly at this stage (Yiqi, 2014).

Introduction of basketball players nutritional dietary pattern: Basketball is a physical exercise which has huge exercise, long time and strong antagonism. Thus, it needs to work out rational nutritional dietary pattern based on basketball players themselves physiological character and basketball sport character. Rational nutritional dietary pattern not only can offer essential energy and delay organism to maintain preferable move status, but also can promote body recovery and enhance training effect. What’s more, it also can prevent athletes’ sport injury effectively.

It must guarantee scientificity and rationality for basketball player nutritional supplement (Dongmei, 2008). If nutritional supplement is insufficient or not supplying in time, it went against body recovery and probably caused organism tired untimely and exercise index declined conditions, which caused unsatisfied

training effect to influence competition results. If nutritional supplement is too much, it not only affected athletes’ somatic function, but also may cause fat accumulation and decline athletic ability to influence their physical fitness. Hence, rational research of basketball player nutritional dietary pattern is imperative. In the study, finally it puts forward rational countermeasure about hoopster nutritional dietary pattern from overall objective, programming level, implementation level three aspects.

MATERIALS AND METHODS

Analysis of our country basketball players nutritional dietary pattern: This study concludes the insufficient and drawback existing in our country basketball player nutritional dietary pattern at this stage. And it summarizes unreasonable reason of our country nutritional dietary pattern from human essential nutrient acceptable daily intake and three meals setting and other aspects (Guanghao, 2011).

Analysis of current situation of our country basketball player nutritional dietary pattern: This study analyzes and studies dietary pattern of our country basketball player at this stage. And it can find several problems current existing. There are three nutrients unreasonable allocation, less minerals ingestion, vitamin no reached ingestion and three meals heat energy unreasonable allocation conditions (Ying, 2005).

The research found that, for enhancing training effect and promoting basketball player body recovery, the most rational dietary pattern should be like Table 1 showed. It found that at this stage our country

Table 1: Three nutrients occupied total heat energy ratio recommendation form

Three nutrients	Carbohydrate (%)	Fat (%)	Protein (%)
Occupied total energy ratio	55-65	12-15	25-30

Table 2: Minerals ingestion recommendation

Mineral	Ordinary training ingestion	Mass exercise (mg)
Potassium	3-4 g	
Calcium	1000-1500 mg	
Iron	20 mg	20
Zinc	25 mg	25

Table 3: Vitamin ingestion recommendation

Vitamin	Ordinary training ingestion	Mass exercise
Vitamin A	500 ug	1800 ug
Vitamin B ₁	3-5 mg	
Vitamin B ₂	2-2.5 mg	25 mg
Vitamin C	140 mg	200 mg
Vitamin E	30 mg	30-50 mg

basketball player for three nutrients ingestion condition existed carbohydrate insufficiency of intake and fat, protein overmuch intake conditions by analyzing and studying their diet condition.

Basketball player in training and competition need consume enormous energy. Carbohydrate ingestion can be fast transformed to glycogen in vivo. Glycogen is the major energy supply substance consuming in basketball. Carbohydrate mainly existed in frumentum, potato and other high content starch food. In diet, basketball players usually falsely assume that meat can rapidly supply consumed energy, so they favor meat and ignore carbohydrate ingestion. In fact, absorbing enough carbohydrate can avoid consuming protein and fat in vivo and prevent from prematurely generating body tired. In the meanwhile, it can also guarantee athletes body state to maintain in the optimum level. The research found that our country basketball players generally had carbohydrate ingestion insufficient condition. In addition, foreign excellent basketball player carbohydrate ingestion usually is higher than our country athletes. Our country athletes' carbohydrate ingestion quantity often is lower than Table 1 recommended value, which more or less affected athletes' athletic ability and recovery ability. Athletes' training effect is dissatisfactory and they cannot exert normal level in the competition.

Fat is one of body seven nutrients, which is the major stored energy in body. When internal ATP function is insufficient, it would consume internal fat to supply body energy. Fat is mainly existing in meat, nuts and dairy product. Basketball players knowing body energy often stay in traditional view. They thought that meat can supply consumed mass energy. But redundantly absorbing meat to store mass fat in body affects body athletic ability. What's more, since basketball is a long time and mass exercise strenuous exercise, when carbohydrate transformational glycogen consuming finished, it started fat metabolism progress to cause hepatic fatty infiltration.

Protein occupies about body component twenty percent, which is body important composition. Protein exerted significant function in body physiological activity. It not only can offer part energy for body, but also has relations with neural signal transitive medium. The research found that in our country basketball players' dietary pattern, except for minority athletes for protein supplement is in the Table 1 recommended range, most of athletes are at excessive state. Protein over much ingestion not only can aggravate liver and renal shoulder, but also can generate more blood ammonia to make body be tired.

The research found that basketball player everyday absorbing minerals should be like Table 2.

Potassium major function has two points. One is maintaining body electrolyte balance, the second is to help nerve conduction. Calcium as a body essential mineral element, the importance not only reflected in composing tooth construction and skeleton, it can active ATPase and fat enzyme, but also was one of cytomembrane and chromosomal composition. Iron element has close relations with body oxygenous transportation. Zinc can efficiently remit athletes sports fatigue caused by free radical. In the training and competition, sweat evaporation also would cause mineral substance element drain. Thus, it need be supplied timely (Cissouma *et al.*, 2013).

Throughout our country basketball player nutritional dietary pattern, it is not hard to find that part of athletes' ingestion insufficient for mineral element affects their physical fitness and athletic ability.

Table 3 shows Vitamin ingestion recommendation. Vitamin importance reflected in the physiology and biochemistry regulation and energy metabolism maintenance two aspects. Vitamin C is water soluble vitamin. For basketball players' high strength training, vitamin C would be expelled from internal gathered with sweat. But if people lacked of vitamin C, body may suffer from free radical attack to lead to be tired and reduce body immunity function. Moderate ingestion of vitamin B₁ and vitamin A contributes to training effect of athletes' nervous system and visual system tension project. It should be paid attention is to strictly control athletes vitamin A and E ingestion. Because they all belong fat soluble vitamin, body heaps up vitamin would cause poisoning. Vitamin B₂ importance inflected in participated part of material metabolism, which included protein, fat and sugar. Human lacking of vitamin B₂ mainly showed as muscle weakness, lacking endurance, tired and nervous excitation abnormal. Thus, in order to preferably help basketball athletes training and reduce sport injury caused by lacking endurance and nervous excitation abnormal, moderate ingestion of vitamin B₂ seemed to particularly important.

In the research of basketball player dietary pattern, they found that part of basketball player did not like to

Table 4: Three meals heat energy recommendation ratio

	Breakfast	Lunch	Dinner (%)	Snack
Three nutrients	(%)	(%)	(%)	(%)
Heat energy ratio	25	35	25-30	0-10

eat vegetable and fruit, which caused the short of part vitamins.

Table 4 shows three meals heat energy recommendation ratio. Research data indicated that our country basketball player three meals heat allocation was unreasonable. Breakfast heat is low, lunch heat is low, dinner heat is too high and snack is excessive.

Athletes' breakfast must prepare adequate energy for morning high-strength exercise, especially for sugar. Because basketball high strength need abundant sugar to maintain, low heat breakfast explained that athletes were short of breakfast importance degree. Some basketball players thought that excess breakfast would affect daily training, which is unscientific. The research indicated that morning ingestion food would be staid in stomach for one to two hours. Thus, after eating one to two hours is more rational to train. Breakfast ingestion would not affect morning training.

Lunch ingestion heat is very important. It not only can supply morning training, but also can prepare for storing energy for afternoon training. It avoided that it lacked of energy to cause body not assume high strength training and affect daily training quality. But excessive lunch ingestion except to affect noon break and cause fat accumulation. Thus, lunch heat energy ingestion need to keep in a reasonable range.

Night training time is often very short. The total commutation is limited. Thus, athletes should not absorb excessive eat at dinner. Redundancy heat which was not consumed would be transformed to fat to cause fat. In fact, for recommendation ingestion criterion, it reached the upper limit would satisfy daily night training needed heat.

Especially needed to notice is that snack should not absorb too much heat. After the snack, some athletes have not vast of exercise and redundant heat would not be consumed. Heat would accumulate in vivo to influence athletes' rest quality, which causes certain fat accumulation. What's more, since food would stay in vivo for certain time, excessive snack would directly influence athletes' daily training and go against promoting athletes' physical fitness and exercise result.

Analysis of causes: Athletes have insufficient perceive for nutritional dietary and lack of system nutritional skill learning. Traditional ideal influences athletes to see meat as the same with nutrition and cultivate bad dietary habit. But nutritional pattern is simple and lacked of scientificity. In the daily life, athletes buffet

form caused them overmuch ingestion food which contained much fat and protein, especially for eating pork, beef and mutton. Athletes absorb less staple food, marine food, vegetables and fruit, which caused them lack of essential energy and vitamin.

Current manager and cook lacked of science perceive of nutritional knowledge. And they only want to cater to athletes' taste, instead of considering dietary match, nutritional balance problems. Basketball is a high strength and mass power-wasting sport. Basketball player dietary arrange still uses traditional having three meals every day mode. But it cannot formulate related snacks times according to athletes' everyday different training quality. It goes not against athletes' physical quality development.

RESULTS AND DISCUSSION

Overall objective: It formulated rational nutritional dietary pattern from project and implement levels and promoted athletes' physical recovery to form nutritional support and physical training mutual promotion. It can improve athletes' physical fitness and promote exercise result.

Project level: For enhancing our country basketball level and improving physical training effect, we need to study nutritional support and related physical evaluation. The establishment of special project physical training and nutritional support system has been an irresistible trend. It would be valid link connected basketball daily training with competition result. According to bowie effect knowledge, it strived to eliminate limited athletes' physical training and competition result constraint. It formed physical training and nutritional support mutual promotion and enhanced training effect by rationally building practicable developed system. It promotes athletes' physical fitness and sport ability.

Implement level: Special equipped nutritionist responsibilities are to formulate scientific and reasonable recipe, unfold effective nutritional knowledge survey. And it teaches athletes and related staff. It imparted nutritional dining and culinary knowledge by opening chair forms. And it corrected traditional error diet concept. At different stage, like daily training stage, high strength training stage, competition stage, the essential for heat are different. Thus, it needs to formulate related meal scheme. Athletes should eat less edible oil food and eat more light food, meat as braising, vegetable as fresh one. Everyday ingestion of salty should control in 15 g. Chef should adjust staple food categories and enhance variety. And cooker should improve daily practice.

Breakfast should take cereal, dairy product, noodle, sports drink or liquid as the principal thing. In the morning, misadventure appetite athletes can select ingestion high glucose dinner to satisfy heat requirement. Snack should take liquid as the principal thing. It is easy to digest and supply energy timely.

CONCLUSION

This study put forward optimize nutrient dietary pattern scheme aiming at current our country basketball player nutritional dietary pattern exiting problems. And it hopes to give basketball players' nutritional support application certain reference value.

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