

Research and Innovation of Children's Nutrition from the Perspective of Nutrition

Dongmei Teng

Yunnan College of Foreign Affairs & Foreign Language

1204729803qq.com

Keywords: Pediatric Nutrition, Curriculum Research, Exploration

Abstract: With the improvement of living standards, health has become a more concerned topic, especially children's health is directly related to the development of the new network. The material basis to ensure the normal growth and development of preschool children. Based on the theory of child nutrition, taking the dietary guidelines of children aged 3-6 as a template, the new ideas of nutrition suitable for children's growth and development are explored under the guidance of the idea of "Internet +".

1. The Significance of the Research on Children Nutrition Course under the "Internet +" Mode.

Preschool nutrition is one of the important professional courses in preschool education. The purpose of the course is to learn about the growth and development characteristics of preschool children, to master the nutritional needs of preschool children, so as to guide the food selection and reasonable diet of preschool children, to understand the common nutritional diseases of preschool children and to guide the prevention of nutritional diseases. Based on the theory of child nutrition, taking the dietary guidelines of children aged 3-6 as a template, the new idea of nutritious food suitable for children's growth and development is explored under the guidance of the idea of "Internet +".

2. The Preliminary Thought of Preschool Children's Nutrition

With the rapid development of the times, a large number of "children's food" are pouring out on the market. Children's soy sauce, children's milk, children's noodles, children's biscuits... Compared with ordinary food, "children's food" tends to sell more "cute" and taste sweeter, so it is quite attractive. In addition to the "gimmick" and high price, parents pay more attention to the quality and safety of "children's food". Children's interesting nutritious food selects high-quality ingredients, of course, it will not pursue the taste, add sugar, salt, fat and food additives to eat more unhelpful ingredients. In the aspect of innovation, we can use natural and fresh ingredients to make interesting patterns, and use color matching to attract children's attention, which can not only improve the added value of the product, but also make children fall in love with this food, and change the bad habit of picky and partial eating. At the same time, it also increases the fun of life, so that children's nutrition is balanced and healthy growth.

(1) Improve the Food Management System

Scientific management shall be carried out, reasonable working system of cooking class shall be formulated, supervised and implemented, and meal interval shall be strictly regulated, that is to say, good habits for children to eat on time are cultivated, which is conducive to digestion and absorption of children. According to the characteristics and growth and development of children, we make reasonable allocation of all kinds of food, appropriately reduce high protein and high fat food, increase cellulose and seaweed food (carrot, spinach, corn, kelp, etc.). To ensure the quality of food and ensure that the weekly recipe must be composed of eggs, meat, fish, viscera, bean products, vegetables, etc., so as to achieve a scientific and reasonable meal.

(2) Formulate a Planned Diet and Plan a Balanced Diet

Balanced diet is the basis of the development of children's physical and mental health - the measurement diet is the key measure to achieve balanced diet. According to the simple method of "planning children's balanced diet", we calculate the daily intake of children in our kindergarten.

(3) Check and Deal with the Heat and Protein Supply Standards of the Age Group

According to the daily dietary nutrient supply revised in 1988 by the Chinese society of nutrition, it was found that the supply standard of five-year-old age group (average value of men and women) was 1550 kcal, and the supply of protein (average value of men and women) was 52.5g.

1) **Calculate all Kinds of Physical Quantity** = 5-year-old histone supply (average value) $8 \times 0.154 \sim 0.171 = 1550 \times 0.154 \sim 0.171 = 238.7 \sim 265.05$

2) Calculate the Daily Protein Requirement

Daily protein requirement = [average protein supply of 5-year-old age group $\times (0.4-0.5) - 16] \div 0.104 = [52.5 \times (0.4-0.5) - 16] \div 0.104 = 48-89$

3) Vegetables and Fruits Should be Used up in One Day

The amount of vegetables and fruits in one day accounts for 70-80% and 20-30% respectively. According to the calculation results and the needs of nutrition, as well as the appropriate proportion of protein, lipid and carbohydrate, and in combination with the standards of our garden, we plan the daily intake of Cereals, meat, bean products, vegetables and fruits. At present, the basic situation of children in our kindergarten is that the daily food intake of a 3-6-year-old child is 239-265 grams of cereal, 240 grams of vegetables + fruits, 50-100 grams of bean products and 250 ml of milk or soymilk.

4) Reasonably Arrange Children's Diet in Combination with Seasonal Characteristics

Different vegetables are on the market in the four seasons of the year, and different climate changes and children's growth, development and activity. Therefore, the recipes in the four seasons should also be different. In spring, the sun shines well and children's activities increase, so they need more calcium. Diet arrangement requires calcium rich foods, such as ribs, shrimp skin, kelp, milk, and children must get enough heat and high-quality protein to meet the needs of children's growth and development and activities. In summer, the weather is hot, children's appetite is poor, and activities and sleep are relatively reduced. Based on the combination of coarse and fine meat, dry and wet diet, bright colors, various forms and rich varieties should be added, which should be mainly light and not too greasy. Color, fragrance, taste and type should be used to stimulate children's appetite. In addition, add some heat clearing, detoxification, heat relieving food and fruits, such as mung beans, winter melon, tomatoes, watermelon, etc. In autumn, the weather is dry. More vegetables, such as radish and lotus root, are added to children. In winter, the amount of activity is reduced. Because of the cold, the body consumes more calories, so it needs to get heat supplement from the food calories. In children's diet, we should add some high calorie and high protein foods, and we can also use cooking methods such as braised in brown sauce to make the dishes taste rich, which makes children like to eat. In addition, we should eat some dates, fungus, etc.

5) Pay Attention to the Quality of Breakfast

Breakfast is the first meal of the day, and also the most important meal of the day, which has an important impact on children's health. Many studies at home and abroad have proved that children who don't eat breakfast and whose nutritional quality is not high will be affected in their logical thinking, creative thinking and physical development.

(1)Six Requirements for Scientific Cooking

Cooking can make a series of changes in food, improve the nature of food and increase appetite, which is to promote the digestion and absorption of nutrition. However, if cooking is not scientific,

it will also damage and lose nutrition, reduce and lose the use value of food. The food made by scientific cooking method, that is, both color, fragrance, taste and shape, meets the requirements of health.

1. Washing: wash the whole dish, select the yellow leaves and rotten leaves, wash them separately, and then wash them with clear water, so as to reduce the surface micro matters and remove the residual pesticide of parasite eggs.

2. Cutting: according to children's digestive function and undeveloped characteristics, when making dishes, raw materials should be carefully cut and broken, such as (fried celery, fried kelp, etc.) but it is easy to cause more contact opportunities and contact surfaces between raw materials and air, resulting in the oxidation and loss of nutrients, so the specific operation should be done as soon as possible, so as to reduce the loss of nutrients.

3. Matching: pay attention to color matching, fragrance, taste and shape, as well as nutrition, meat and vegetable matching, thick and thin matching (such as stir fried meat with potatoes, carrots, tofu, vegetables, green vegetable heart, roasted fish with chestnuts, Maodou, etc.), so as to make use of the complementary function of protein and improve its biological value.

4. Scalding: according to the properties of dishes, some raw materials often need to be scalded. When the vegetables are turned over in the boiling water, they can be picked up, which can not only maintain the bright color, but also do not affect the taste.

5. Cooking: to reduce the loss of nutrients in cooking, the principle is to cook in high heat, that is to say, when the oil is stir fried in high heat, the heating time should not be too long, so as to avoid the loss of water-soluble proteins, such as eggs, chickens, ducks, pig blood are rich in water-soluble proteins. In the process of heating, these water-soluble proteins will gradually solidify. The longer the heating time is, the harder the solidifying will affect the taste and nutrition utilization.

6. Seasoning: salt should not be added too early to adapt to cooking, and the osmotic pressure will increase too early to oxidize or drain the water-soluble nutrients. However, salt is added too early to cook beans and stir fry meat, but the protein in the raw material coagulates too early to be dissolved in the soup, which affects the concentration of the soup. MSG is put in the best when the dishes are started.

(2) Carefully Cooking, Reasonable Distribution and Regular Meals.

According to the psychological characteristics of children's diet to do a good job in food preparation and cooking, children's diet especially emphasizes the beauty of color, flavor, rich and colorful, the recipe to achieve the combination of coarse and fine, meat and vegetable matching, coarse and fine food, fine food, change patterns. According to children's psychological characteristics, our garden makes good food preparation and cooking, such as gold and silver rolls made of coarse grains and flour that children don't like, buns made of millet noodles and jiangmi noodles. There are also bean paste bags, triangle sugar bags, chrysanthemum top buns, meat rolls, steamed buns, wonton stews, flower rolls, jujube rolls, barbecued meat, bergamot bags and so on, noodles made of shredded meat, brine noodles, egg noodles, tofu and other materials made of soy bean curd, family Fu, stewed tofu and other cold mixed assortments. The fruits and vegetables should not be replaced by each other (fruits contain less inorganic salt, while vegetables are the main food source of calcium, iron and inorganic salt, just as the ancient books said that five vegetables are for filling and five fruits for helping). It's reasonable to eat fruits and vegetables. Regular eating can make the secretion of digestive glands and the peristalsis of digestive organs of children, and form regular movement. Appetite will naturally appear along with the time of eating, so that the food eaten can be digested quickly and absorbed well. We have breakfast from 8:00 to 8:30 every day, lunch at 11:30 and lunch at 3:00 in the afternoon. This arrangement is reasonable.

(3) Healthy Dietary Environment

The quality of the dining environment directly affects the quality of children's meals. The dining environment includes physical environment and psychological environment. The healthy environment (Physics) refers to adequate light, air circulation, appropriate temperature, clean and beautiful multi meal and tableware, appropriate size, and elegant and tidy indoor layout. Healthy

psychological environment refers to the harmonious atmosphere of meals, not forcing children to eat, not corporal punishment or criticism, so that children can eat happily. Also can play some relaxed, beautiful music, in order to promote the appetite of children. In addition, we also give children three minutes of pre meal education, talk about some safety knowledge during meals, today's meal nutrition, etc., so that children can understand the nutrition of food, pay attention to the safety and health of meals.

(4)Food Hygiene and Selection of Children

1. Do a good job in health publicity, regularly train and assess the health care and education personnel, regularly carry out health education activities for children, publicize the food health knowledge of children to parents in the form of "parents' meeting", "partners' committee", inter kindergarten network, kindergarten floor of preschool education, publicity column, etc., and obtain the support and cooperation of parents for health care.

2. Prevention first, routine disinfection. Every day, children should wash their hands before and after meals (soap and running water), disinfect tableware for each meal, specially assigned person, disinfect activity room and dormitory with ultraviolet light twice a week, disinfect once a day in epidemic season, wash and disinfect toilets and washrooms every day. The bedding is exposed to the sun once a week. The environment is cleaned every day. The bedding is cleaned every week. The children are evaluated regularly. The rewards and punishments are paid. The children have a good living and sanitary environment.

3. Children's food can be divided into six categories: grain, animal food, beans and their products, vegetables and fruits, cooking oil and seasoning. Only when all kinds of food meet certain health requirements can they meet children's health needs. Children are in the development period of body and brain, so adequate and reasonable nutrition is particularly important for them. Children have a healthy body, which is the wish of every parent and the whole society. Our park takes advantage of all favorable factors, arouses all enthusiasm, and takes scientific and reasonable measures to make children eat well and live well, so that they are healthy in body and mind and thrive.

3. Conclusion

Young children are the flowers and bones of the motherland. Their growth is related to the prosperity of the next generation of the motherland. Therefore, their dietary nutrition intake and collocation can not be taken lightly. Reasonable dietary collocation and good dietary habits are the necessary conditions to ensure the healthy growth of children. The times are progressing, the society is developing, and innovation is always on the way. The healthy diet and nutrition of children is the eternal theme.

Acknowledgement

Fund construction: Scientific research fund project of yun nan provincial department of education in 2018; Research and time exploration on the course of children's nutrition9(2018JS876)

References

- [1] Opinions of the State Council on the current development of preschool education. [J]. GF [2010] No. 41 document.
- [2] Zhao fahui. Children's diet nutrition and health. Beijing: Jindun press. 2009:134-135.
- [3] Gao Yuping. Food nutrition and hygiene. Beijing: Ocean Press. 2010:148.
- [4] Li Fenglin, Xia Yu. Food nutrition and hygiene. Beijing: China Light Industry Press. 2007:111.
- [5] Chen Jun, nutrition and diet. Beijing: Science Press, 2005.
- [6] Shi Shuhua. Children's health care. 2nd Edition. Beijing: People's Health Publishing House,

2005.

[7] Sun Changhao. Nutrition and food hygiene. Beijing: People's Health Press, 2008.

[8] Chinese society of nutrition. Reference intake of dietary nutrients for Chinese residents. Beijing: China Light Industry Press, 2000.

[9] Yu Junmei. Fundamentals of nutrition. 2nd Edition. Beijing: Science Press, 2008.

[10] Chinese society of nutrition. Dietary guidelines for Chinese residents (2007). Lhasa: Tibet people's publishing house, 2008.

[11] Chen Bingqing. Nutrition and food hygiene. Beijing: People's Health Press, 1999.

[12] Zhou Kaizhen. Method of eating. Beijing: Jiuzhou publishing house, 2007.