

Survey and Research on Nutritional Knowledge and Dietary Behaviors among College Students

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Abstract

This study investigates college students' Nutritional Knowledge and dietary behaviors to identify existing problems and propose optimization suggestions. Using literature review, questionnaire survey, and mathematical statistics, the research reveals that college students currently face issues such as unhealthy dietary habits, unreasonable dietary structure, and lack of nutritional knowledge. Based on the findings, recommendations are put forward: strengthening nutritional knowledge education, optimizing the campus catering structure, and enhancing dietary guidance.

Keywords

College Students; Nutritional Knowledge; Dietary Behaviors.

1. Introduction

College students are the most important force for national development in the future. Their physical health and behavioral cognition are directly related to their own future development and the country's prospects. College students are in a period of vigorous metabolism. Coupled with academic and employment pressures, their demand for balanced nutrition is particularly crucial. However, numerous surveys and studies have shown that the current dietary behaviors of college students are not ideal, with common problems such as irregular eating, nutritional imbalance, overnutrition, and lack of nutritional knowledge [1-2]. In view of this, a comprehensive study on college students' current Nutritional Knowledge and dietary behaviors is particularly important.

With social development, the physical fitness of college students has been declining, and their health issues have attracted increasing attention from the country and society. This study aims to investigate college students' Nutritional Knowledge and dietary behaviors, understand the existing problems, and propose optimization suggestions based on these issues. It provides a basis and support for college students' nutritional health education and health promotion, helps them establish scientific dietary habits, and improves their overall health level.

2. Research Objects and Methods

2.1. Research Objects

The research objects are undergraduate students from 8 universities, with a total of 413 respondents.

2.2. Research Methods

2.2.1. Literature Review Method

Relevant journals, newspapers, papers, and policy documents were reviewed to understand research on college students' Nutritional Knowledge and dietary behaviors, serving as the theoretical basis for this study.

2.2.2. Questionnaire Survey Method

A qualitative questionnaire survey was conducted among college students from 8 universities in a city. A total of 413 questionnaires were recovered, including 13 invalid ones and 400 valid ones, with an effective rate of 96.8%. The survey was conducted anonymously, covering aspects such as college students' dietary habits, dietary structure, nutritional knowledge cognition, and access channels.

2.2.3. Mathematical Statistics Method

Excel software was used for data analysis of the collected research content.

3. Results

3.1. Dietary Habits

3.1.1. Breakfast Consumption

According to the data in Table 1, only 36.3% of college students eat breakfast every day, while the proportion of students who eat breakfast occasionally or almost never reaches 26.4%. This phenomenon indicates problems in college students' breakfast consumption. The causes include irregular work and rest schedules, tight curriculum arrangements, and lack of health and nutrition awareness. Given the important impact of breakfast on college students' study and life, it is particularly crucial to attach importance to breakfast and ensure balanced nutritional intake. This can not only improve students' learning efficiency throughout the day but also help them develop good living habits.

Table 1. College Students' Breakfast Consumption Survey

Item	Percentage of Breakfast Consumption (%)
Eat every day	36.3
Eat most days	37.29
Eat occasionally	15.5
Almost never eat	10.9

3.1.2. Frequency of Takeout Consumption

Table 2. Frequency of Takeout Consumption

Item	Frequency of Takeout Consumption (%)
Never	13.1
Regularly (>3 times/week)	45.3
Occasionally (<3 times/week)	41.6

According to the data in Table 2, 45.3% of college students order takeout regularly, 41.6% order it occasionally, and only 13.1% never order takeout. Most students have the habit of ordering takeout, differing only in frequency. Takeout is favored by college students for its convenience and diverse choices, prompting them to develop the habit of ordering takeout frequently. However, takeout food usually contains high levels of oil, salt, and sugar, and long-term

consumption may have negative impacts on physical health. Excessive reliance on takeout may also lead to irregular dietary habits and nutritional imbalance.

3.1.3. Regularity of Three Meals

As shown in Table 3, 17.4% of students have irregular or rarely regular three meals, and only 25.4% maintain regular three meals. Obviously, irregular dietary habits are common among college students. Such habits can cause digestive system disorders and may lead to constipation, stomachaches, malnutrition, and other problems. On the contrary, regular three meals can provide stable energy and help avoid overeating or prolonged hunger caused by irregular eating, thereby helping college students develop healthy dietary habits.

Table 3. Regularity of Three Meals

Item	Regularity of Three Meals (%)
Always regular	25.4
Often regular	57.1
Rarely regular	13.8
Never regular	3.6

3.2. College Students' Dietary Structure

3.2.1. Proportion of Daily Food Intake

It can be seen from Table 4 that in college students' daily food intake, the proportion of fruits, vegetables, and dairy products is low, while the proportion of meat and eggs is high, resulting in unbalanced nutrient intake. Fruits and vegetables are important sources of vitamins, minerals, dietary fiber, and antioxidants. Dairy products provide a lot of calcium and high-quality protein. Long-term excessive intake of meat, especially red meat and processed meat products, will increase the risk of chronic diseases such as cardiovascular and cerebrovascular diseases, hypertension, and diabetes.

Table 4. Proportion of Daily Food Intake

Item	Ranking of Intake Proportion
Cereals	2
Meat and eggs	1
Fruits and vegetables	3
Dairy products	4

3.3. Cognition and Access Channels of Nutritional Knowledge

3.3.1. Reasonable Meal Ratio for Three Meals

According to the data in Table 5, half of the college students do not understand the reasonable meal ratio for three meals. A reasonable meal ratio helps to evenly distribute energy intake throughout the day and prevent weight gain due to excess energy. In addition, an appropriate meal ratio can reduce the burden on the gastrointestinal tract and avoid indigestion, bloating, and other problems caused by excessive food intake at one time.

Table 5. Reasonable Meal Ratio for Three Meals a Day

Item	Awareness of Reasonable Meal Ratio (%)
Never learned	7.9
Answered correctly	49.15
Answered incorrectly	42.95

3.3.2. Types of Food to Be Intaken Daily and Weekly

From Table 6, we know that only 19.8% of students can correctly answer the types of food that need to be taken daily and weekly. The Dietary Guidelines for Chinese Residents (2022 Edition) recommends intaking 12 types of food per day and at least 25 types per week [3]. This suggestion aims to encourage residents to achieve dietary diversity to meet the needs of various nutrients, which is particularly crucial for promoting growth and development and improving immunity.

Table 6. Types of Food to Be Intaken Daily and Weekly

Item	Proportion of Correctly Recognizing Daily and Weekly Food Intake Types (%)
Unclear	25.9
Answered correctly	19.8
Answered incorrectly	54.3

3.3.3. Access Channels of Nutritional Knowledge

Table 7 shows that the top three channels for obtaining nutritional knowledge are mass media, books and newspapers, and family and friends. Only 10.4% of students have received nutritional health education at school. However, 82% of college students fully affirm the necessity of receiving nutritional health education at school (Table 8). It can be seen that there is indeed a certain shortage in college students' acquisition of nutritional health knowledge at school. However, carrying out nutritional education in schools is of great significance for college students. It can help them understand and master necessary nutritional knowledge, establish correct dietary concepts, and develop good dietary habits.

Table 7. Access Channels of Nutritional Knowledge

Item	Access Channels of Nutritional Knowledge (%)
Mass media	56.9
Books and magazines	12.1
Family and friends	13.8
School classes or lectures	10.4
Never learned	6.8

Table 8. Necessity of Setting Up Nutritional Health Education Courses in Schools

Item	Necessity of Setting Up Nutritional Health Education Courses (%)
Necessary	82
Unnecessary	18

4. Discussion

4.1. Unreasonable Dietary Structure

College students generally lack knowledge of scientific and reasonable dietary structure and nutritional collocation. In many students' diets, traditional diets have been replaced by Western fast food, snacks, and high-sugar and high-fat foods. Their intake of fruits, vegetables, and dairy products is insufficient, and the collocation of meat and vegetables is unreasonable, leading to unbalanced nutritional intake. This imbalance may cause malnutrition or overnutrition and increase the risk of overweight and obesity. Most college students do not know how to scientifically collocate their diets, nor do they understand the nutritional value of different foods and their impact on health, which has become a common problem.

College students are in a critical period of transition from adolescence to adulthood. Their physical development and daily activities require sufficient energy and various nutrients, especially high-quality protein, calcium, iron, zinc, etc. A long-term unreasonable dietary structure will not only affect their memory and immunity but also damage their health unconsciously and ultimately affect their learning efficiency.

4.2. Lack of Nutritional Knowledge

Rich nutritional knowledge is the foundation for establishing correct nutritional attitudes and adopting healthy nutritional behaviors [4]. Survey and interview results show that college students generally lack knowledge about nutritional health. Many students fail to fully understand the importance of nutritional balance. They have an unclear understanding of basic concepts such as the meal ratio of three meals a day and the types of food that should be taken daily and weekly. In addition, most students have insufficient understanding of the functions of different nutrients and the necessity of a balanced diet, and often hold wrong concepts such as "being young means being carefree" and "as long as you are full". This attitude of ignoring scientific and nutritious diet leads to deviations in their dietary choices and habits, and thus they are prone to a series of health problems such as overweight, obesity, and gastrointestinal dysfunction.

4.3. Lack of Scientific Guidance on Nutritional Health Knowledge

Surveys show that current college students mainly obtain knowledge about nutrition and health through mass media. However, education on this topic is insufficient in schools, resulting in uneven understanding of nutritional knowledge among students. Schools are the main front of education and should strengthen the importance of nutritional health education. Schools should teach students necessary nutritional knowledge and the importance of healthy eating, thereby guiding them to develop good dietary habits. In addition, college students should fully understand the basic knowledge of nutrition and the concept of a balanced diet to promote their overall health level.

5. Conclusion and Suggestions

The state should include nutritional health education in the important agenda when formulating relevant education policies. Education committees at all levels should regularly inspect and guide the development of nutritional health education in various colleges and universities, and adjust education policies based on inspection feedback.

Colleges and universities should incorporate the key contents of the Dietary Guidelines for Chinese Residents into student handbooks for students to refer to and learn at any time. They should also add general courses on nutritional health in the curriculum to ensure that nutritional health education is truly integrated into classroom teaching.

Colleges and universities should regularly carry out activities such as "Nutritional Health Education Month" and "Dietary Nutrition Week" every year to improve students' awareness of nutritional health. Schools should set up "Nutritional Health Consultation Service Stations" or "Nutritional Health Consultation Hotlines" to answer students' questions at any time, ensuring that all questions are answered and resolved.

Regularly promote nutritional health knowledge through the school's official media such as WeChat public accounts, Weibo, and radio to increase students' learning channels. Regularly invite nutritional health experts to enter the campus to give promotional lectures to encourage students to take the initiative to learn nutritional knowledge, improve their dietary habits, pay attention to the diversity and balance of food, and reasonably arrange three meals a day to ensure adequate nutrient intake.

Diversify the catering choices in campus canteens to provide students with more options. Invite professional nutritionists to regularly train campus canteen staff to enhance their ability to collocate canteen meals reasonably in terms of nutrition.

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