

## Retraction

# Retracted: Investigation and Strategy Research on Dietary Nutrition Knowledge, Attitude, and Behavior of Athletes

### Journal of Food Quality

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Manipulated or compromised peer review

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

In addition, our investigation has also shown that one or more of the following human-subject reporting requirements has not been met in this article: ethical approval by an Institutional Review Board (IRB) committee or equivalent, patient/participant consent to participate, and/or agreement to publish patient/participant details (where relevant).

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

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- [1] B. Feng and Y. Yuan, "Investigation and Strategy Research on Dietary Nutrition Knowledge, Attitude, and Behavior of Athletes," *Journal of Food Quality*, vol. 2022, Article ID 7323680, 7 pages, 2022.

## Research Article

# Investigation and Strategy Research on Dietary Nutrition Knowledge, Attitude, and Behavior of Athletes

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The goal of this paper is to learn more about the nutritional knowledge, attitude, and behavior of teenager trampoline athletes to improve their dietary nutritional levels as well as their sports performance. The questionnaires were designed on athletes' diet nutrition knowledge, and the questionnaire surveys were conducted on the selected teenager trampoline athletes aged 10–17 as the survey object. Dietary nutrition knowledge, attitude, and behavior are significantly correlated with the total score ( $P < 0.05$ ); dietary nutrition knowledge and dietary nutrition behavior are significantly correlated ( $P < 0.05$ ); dietary nutrition attitude and dietary nutrition behavior are also significantly correlated ( $P < 0.05$ ); dietary nutrition knowledge and dietary nutrition attitude are not strongly correlated ( $P > 0.05$ ). The average score of dietary nutrition knowledge of teenager trampoline athletes is  $6.5 \pm 1.7$  (failing). The nutritional knowledge of teenager trampoline athletes is not systematic and the quality of nutrition information obtained by teenager trampoline athletes is low. The average score of dietary nutrition attitude of teenager trampoline athletes is  $7.1 \pm 1.8$  (good). The average score of dietary nutrition behavior is  $13.4 \pm 3.1$  (moderate). Teenager trampoline athletes mainly rely on coaches, relatives, and friends to obtain nutritional knowledge. Therefore, the correct eating habits need to be strengthened and their dietary nutrition behaviors need to be reasonably monitored. Suggestions will include providing relevant nutrition courses, increasing athletes' awareness of the importance of dietary nutrition, and using professional dietitians for dietary nutrition matching and monitoring.

## 1. Introduction

Adequate nutrition is not only conducive to maintaining the physical health of athletes but also conducive to maintaining and improving the physical function and competitive state of athletes. The aim is to learn more about trampoline athletes' nutritional knowledge, attitudes, and behaviors, as well as to improve their dietary nutritional levels and sports performance. Reasonable intake of nutrition is also the basic guarantee for fatigue recovery and resistance to injury after sports [1]. Therefore, reasonable dietary nutrition plays an important role in teenager trampoline athletes. They usually begin to learn two rounds' nonrotation movement after the age of 10 and two rounds'  $540^\circ$  movement after the age of 12. Female athletes usually enter the peak of development at the age of 15, while male athletes usually reach the high level at

the age of 17, so the age of 10–17 is an important period of adolescent body development. Teenager athletes are in the period of growth and development, with vigorous material metabolism. In addition to normal daily activities, they also need to carry out a lot of sports training, which is far greater in energy consumption than that of ordinary peers. Therefore, the daily energy intake should not only meet the requirements of physical growth and development but also ensure the consumption of daily training. In this period, they should have scientific and reasonable diets, and the supply of nutrients related to the nutritional deficiency must be strengthened to make sure that daily energy consumption is ensured. Their dietary needs should be determined according to their different training and competition stages. Reasonable dietary nutrition also plays an important role in the training team [2]. Good sports ability is influenced by

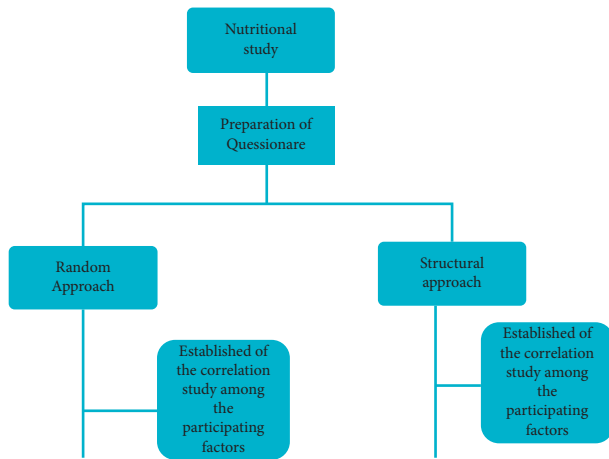


FIGURE 1: Proposed nutrition's impact determination model.

training, nutrition, psychological quality, and so on. Among them, dietary nutrition plays an important role in the maintenance, promotion of body health, and sports ability. KAP is an effective measurement tool to evaluate the effect of nutrition education and nutrition intervention. It has a wide range of applications, such as nutrition investigation and intervention for different groups of people [3]. Webb and his fellows have investigated the knowledge and attitude of athletes and college students by using the diet nutrition knowledge-attitude-behavior questionnaire. The results show that athletes have a more positive nutrition attitude, but their nutrition knowledge is relatively lacking [4]. Heaney has found that carbohydrate intake is insufficient and vitamin D, calcium, iron, and magnesium intake do not meet the recommended value in a dietary survey of 72 female athletes in different programs [5]. In addition, Noda Y. has conducted a dietary survey of 31 college football players in Japan and has found that carbohydrate intake is 6.9 g/kg, and protein is 13 g/kg, which are under the lowest recommended range, and the average intakes of green vegetables, milk and dairy products, fruits, and eggs are also lower than the recommended target [6]. Furthermore, among the 20 young Australian swimmers (including 9 boys and 11 girls, with an average age of 13), the intake of carbohydrate, vitamins, calcium, and iron was below under the recommended level [7]. This paper studies the status quo of dietary nutrition knowledge, attitude, and behavior (K, A, P) of teenager trampoline athletes and the related influencing factors, finds out the existing problems in the diet of teenager trampoline athletes, and provides a theoretical basis for carrying out dietary nutrition education. In most studies, eating habits, nutrition knowledge, and body composition were improved or maintained. Limited studies have examined the impact of nutrition education interventions on physical performance, with disparate findings reported. The findings of this study suggest that nutrition education interventions could improve eating habits, nutrition knowledge, and body composition in athletes participating in team sports [8]. Nutrition knowledge (NK) is one factor that may influence an athlete's nutritional intake, but many NK measurement tools are outdated or unvalidated, and results regarding

athletes' NK are ambiguous. This systematic review aimed to assess the relationship between athletes' general NK, sport NK, and dietary intake, as well as to update previous systematic reviews by examining athletes' NK. Researchers searched MEDLINE, CINAHL, Scopus, SPORTDiscus, Web of Science, and Cochrane for studies published between November 2015 and November 2020 that described the NK tool used and provided a quantitative measure of NK. It appears that there is a low standard of knowledge overall [9].

## 2. Research Objects and Research Methods

A block diagram is presented in Figure 1 to describe the proposed method.

The questionnaires are designed to get the reviews from the athletes. The structural questionnaire contains predefined questions and random approach adds the questions if suggested by the athletes during adding the questionnaire responses.

**2.1. Research Objects.** A study on dietary nutrition of trampoline athletes was conducted on 40 teenagers aged between 10 and 17 years (sports level: 25.0% of the training team members, 15.0% of the second level, 55.0% of the first level, and 5.0% of the master athletes; school stage: primary school 22.5%, junior high school 40.0%, and senior high school 37.5%). The subjects were all healthy, had no family history, and had no history of illness during the investigation. Table 1 shows that the *P* values of adolescent male and female athletes in terms of age, height, weight, and training years are all more than 0.05, and there is no statistically significant difference.

### 2.2. Research Methods

#### 2.2.1. Nutrition Knowledge-Attitude-Behavior Investigation Method (KAP)

**A. The Compiling of the Nutrition Knowledge-Attitude-Behavior Investigation.** According to the research purpose, the questionnaire design was based on the Dietary Guidelines for Athletes and the reference to similar literature [10]. The questionnaire was divided into two modules. The first module was the basic situation of the individuals (7 questions including name, gender, age, height, weight, the number of years of exercise, and sports level). The second module was the knowledge of dietary nutrition (6 questions including the necessary sources of energy materials, the cognitive status of nutrients, and the understanding of antidoping, etc.), dietary nutrition attitude (10 questions including whether you are willing to change bad eating habits or limit your food intake strictly according to the rules of the team, etc.), and dietary nutrition behavior (10 questions including the frequency of daily food intake, the main basis for selecting food, and the frequency of food intake, etc.), for a total of 26 questions. After the expert validity test, the questionnaire was highly targeted, and the

TABLE 1: Overview of the basic situation of the research object.

Gender	Age	Height/cm	Weight/kg	Training years/year
Male ( $n = 19$ )	$13.5 \pm 1.9$	$158.7 \pm 12.6$	$46.3 \pm 13.0$	$5.0 \pm 2.3$
Female ( $n = 21$ )	$13.9 \pm 2.3$	$155.5 \pm 8.5$	$43.4 \pm 6.5$	$5.5 \pm 1.9$
Sig.	0.522	0.435	0.350	0.399

TABLE 2: List of questionnaire reliability test.

Degree of validity	Very effective	Effective	Basically effective	Generally effective	Invalid
Number of people	2	3	1	0	0

design was reasonable. The difficulty of choice matches the knowledge level of young athletes.

**B. The Test of Nutrition Knowledge-Attitude-Behavior Investigation.** This study used the Pearson Correlation Analysis to ensure the internal consistency of the questionnaire. KMO test and Bartlett test showed that the contribution rate of the three factors (Nutrition Knowledge-Attitude-Behavior) was relatively high. Therefore, the Nutrition Knowledge-Attitude-Behavior Investigation was determined into three factors. Through factor analysis, each of these three factors including dietary nutrition knowledge, nutrition attitude, and nutrition behavior was determined as 6 questions, 10 questions, and 10 questions, respectively.

Questionnaire validity test: questionnaire validity was evaluated by an expert-assessment method. Six nutrition-related experts were hired to assess the validity of the questionnaire. Table 2 shows that all the experts believe that the questionnaire is effective, indicating that the questionnaire has high validity. The main component analysis was used to test the structural validity of the questionnaire. The test results show that the regeneration commonality of the 26 questions is greater than 0.7. The Pearson coefficients are 0.737 \*\*, 0.857 \*\*, 0.799 \*\*, respectively ( $P < 0.01$ ), indicating that the correlation between the questions and the total score is significant, and the structure validity of the questionnaire is good.

Questionnaire reality test: through the Cronbach  $\alpha$  coefficient test, the Cronbach  $\alpha$  coefficient is 0.795, with high reliability. Therefore, the questionnaire can be used as a tool to measure the dietary nutrition knowledge, attitude, and behavior of teenager trampoline athletes.

**C. Evaluation Methods and Evaluation Criteria.** There will be 1 point for each correct answer in the diet knowledge and behavior sections. Each multiple-choice question has 3 correct answers. Each answer is assigned 1 point for a total of 3 points. The respective scores of dietary nutrition knowledge, dietary nutrition attitude, and nutrition behavior are 12 points, 10 points, and 21 points, with a total score of 43 points. The passing rate of knowledge, attitude, and behavior is

$$\text{testing} = \left( \frac{\text{total score containing knowledge}}{\text{(attitude/behavior)}} \right) \times 60\%. \quad (1)$$

Grading measurement of dietary nutrition attitudes is divided into 5 choices: very agree; agree; unclear/not necessarily/uncertain; disagree; very disagree; grading criteria: dietary nutrition knowledge: pass for 7.2–8.4 points, good for 8.5–10.2 points, and excellent for 10.3–12.0 points; dietary nutrition attitude: pass for 6.0–7.0 points, good for 7.1–8.5 points, and excellent for 8.6–10.0 points; dietary nutrition behavior: pass for 12.6–14.7 points, good for 14.8–17.8 points, and excellent for 17.9–21.0 points.

**2.2.2. Mathematical Statistics.** The collected data were statistically processed by SPSS 23.0; the questionnaire and various data were analyzed by conventional mathematical statistics, including descriptive statistics, one-way ANOVA, independent  $t$ -test, correlation analysis, etc. The statistical results were expressed by mean  $\pm$  standard deviation ( $\bar{X} \pm s$ ).

### 3. Research Results and Analysis

**3.1. Correlation Analysis of Dietary Nutrition Knowledge, Attitude, and Behavior of Teenager Trampoline Athletes.** High correlation suggests that parameters in question are significantly related and we can get more knowledge from it. As compared to low correlation it suggests that parameters in question can be very loosely related or not related at all. By Pearson Correlation Analysis, the results show that there is a significant positive correlation between dietary nutrition knowledge and dietary nutrition behavior, but no significant positive correlation between dietary nutrition attitude and dietary nutrition knowledge. Therefore, we should pay attention to the intervention of dietary nutrition behavior to better improve the knowledge reserve of dietary nutrition. There is also a significant positive correlation between dietary nutrition behavior and dietary nutrition attitude. Hence, a good dietary nutrition attitude is necessary in order to better cultivate positive dietary nutrition behavior among teenager trampoline athletes. The results of Pearson correlation coefficient analysis show that the knowledge, attitude, and behavior of dietary nutrition are positively correlated with the total score. Therefore, it is necessary to train the knowledge, attitude, and behavior of dietary nutrition in the overall training of these athletes as shown in Table 3.



TABLE 3: Summary of correlation analysis between dietary nutrition knowledge-attitude-behavior and total score.

	Pearson correlation coefficient ( $r$ )	Correlation
Dietary nutrition knowledge and dietary nutrition attitude	0.243	-
Dietary nutrition knowledge and dietary nutrition behavior	0.505**	Very significant positive
Dietary nutrition behavior and dietary nutrition attitude	0.259*	Significant positive
Dietary nutrition knowledge and total score	0.737**	Very significant positive
Dietary nutrition behavior and total score	0.875**	Very significant positive
Dietary nutrition dietary attitude and total score	0.599**	Very significant positive

\*\* At 0.01 level (double tail), the correlation was significant\*\*. \* At 0.05 level.

TABLE 4: Summary of correlation analysis between different variables and total score.

( $n = 40$ )	Spearman correlation coefficient ( $r$ )	Correlation	Male ( $M$ ): female ( $F$ )
Training years and total score	0.206	—	$M < F$
Sports levels and total score	0.108	—	$M < F$
School stage and total score	0.320*	Significant positive	$M < F$

\* At 0.05 level (double tail), the correlation was significant\*\*.

3.2. *Correlation Analysis between Different Variables and Dietary Nutrition Knowledge, Attitude, and Behavior of Teenager Trampoline Athletes.* Through Spearman correlation analysis, the results show that training years, sports levels, and total scores are not significantly related. There is a significant correlation with school stage, which indicate that the higher the learning period, the better the overall performance of the diet nutrition questionnaire. Therefore, it is necessary to strengthen the study of diet nutrition knowledge in the study of teenager trampoline athletes and then form a more positive attitude towards diet nutrition so as to better influence their behavior as shown in Table 4.

### 3.3. Results and Analysis on the Dietary Nutrition Knowledge, Attitude, and Behavior of Teenager Trampoline Athletes

3.3.1. *Survey Analysis on Nutrition Knowledge.* The parameters used for evaluation are dietary nutrition knowledge, dietary nutrition attitude, and dietary nutrition behavior. The study involves both male and female athletes.

According to the survey, teenager trampoline athletes scored 1 point at the lowest and 9 points at the highest in terms of dietary nutrition knowledge, with an average score of  $6.5 \pm 1.7$  points, which is a failing level. According to the results, we get following observations:

- (A) The dietary nutrition knowledge of teenager trampoline athletes needs to be improved urgently. Only 25.0% of them have received systematic sports nutrition education; only 22.5% have answered correctly to the sources of energy and materials needed by the human body, and 30.0% have answered correctly to the cognition of food nutrients.
- (B) The common sense of dietary nutrition needs to be popularized. In all the subjects, three athletes chose coffee or carbonated drink in the question of which nutrition could be added after exercise to facilitate physical recovery. Therefore, athletes lack enough nutrition knowledge and need to learn more [11, 12].

- (C) Teenager trampoline athletes do not learn nutrition knowledge systematically. Most of them have not received systematic nutrition education. Hence regular nutrition lectures can make athletes clear on what to eat, how to eat, and how much to eat in their daily diet. Through various ways such as propaganda and education, the nutritional knowledge of athletes can be improved, which is helpful for athletes to achieve and maintain a reasonable dietary nutritional status [13].
- (D) The quality of nutrition information obtained by teenager trampoline athletes is not high. 21.3% of teenager trampoline athletes have knowledge of dietary nutrition from relatives or friends, 20.0% from team doctors, and 18.7% from coaches. Some studies have shown that coaches, team doctors, relatives, and friends may not be suitable for spreading nutrition knowledge to athletes [14]. Most of the teenager trampoline athletes would like to consult their team doctors or coaches or relatives or friends about the knowledge of dietary nutrition. Although they can help them to solve the problem to a certain extent, their professional knowledge reserves are mostly biased towards the study of sports injuries and rehabilitation, physical training status monitoring, and other medical aspects. For these teenagers who are developing a professional dietitian, it can be of help to carry out dietary matching and nutrition monitoring so as to promote the equalization of nutritional proportion. Coaches may not have adequate knowledge of nutrition, and they may even provide athletes with wrong nutrition information [15, 16].

3.3.2. *Survey Analysis on Nutrition Attitude.* The dietary nutrition attitude of teenager trampoline athletes can objectively reflect the reserve and behavioral orientation of individual nutrition knowledge. The survey shows that the lowest score of teenager trampoline athletes in the dietary

nutrition attitude is 2, and the highest is 10, with an average score of  $7.1 \pm 1.8$ , which is a good level.

The results show the following:

- (A) Young trampoline athletes generally have a positive attitude towards nutrition. 92.5% of the teenager trampoline athletes hope to acquire nutrition-related knowledge and 75.0% of them believe that nutrition knowledge is necessary. Therefore, healthy eating behaviors need to be emphasized. In the end, 95.0% of the teenager trampoline athletes are willing to make dietary changes, indicating that they have a good attitude towards dietary nutrition and accepting the changes in eating behaviors. Consequently, changing the current snack intake with nutritious food choices will also improve their nutritional quality [17]. 67.5% of the teenager trampoline athletes are “unsure” about the “food nutrition knowledge of the media,” indicating that they do not scientifically and systematically learn and understand the dietary nutrition knowledge. Furthermore, 25.0% of the teenager trampoline athletes answer the question “no thirst, no water” incorrectly, indicating that the learning and promotion of their basic knowledge need to be improved.
- (B) Most of the teenager trampoline athletes lack the correct understanding of snacks. Some of them do not purchase food in full accordance with the rules of the team when going out, while 32.5% of them do not buy snacks outdoors. The results show that there is a lack of scientific guidance on the methods of controlling snacks and reducing drinks to maintain weight. Therefore, the teenager trampoline athletes hope to ensure that the team can provide professional knowledge of weight control.
- (C) Attention should be paid to the study of a nutrition strengthening program. 47.5% of them attach great importance to the nutrition intensive program and pay attention to maintain weight. They also hope to obtain customized recipes and customized drinks, suggesting that they have a good demand for dietary nutrition behavior. The nutritionist is an important member of the compound team. In order to improve the training level and improve the training results, professional nutritionists must be equipped. In addition, 52.5% of them want to have face-to-face communication with dietitians, demonstrating they have positive dietary nutrition attitudes.

**3.3.3. Analysis of Nutritional Behavior.** The lowest score of dietary nutrition attitude of teenager trampoline athletes is 9, and the highest score is 19, with an average of  $13.4 \pm 3.1$ , which is a passing level. Shelley L. Holden suggests that the nutritional behavior of teenager trampoline athletes is different [18]. Debra D’s research shows that there are gender differences in nutritional behavior [19]. The overall results show the following:

- (A) Unbalanced intake of nutrients exists in the daily life of teenager trampoline athletes. The proportion of meat in the dietary nutrition of them is high; i.e., 89.5% of teenager athletes eat meat every day, and 31.6% of athletes eat less than 3 times a week of beans and snacks. Sports teams do not pay enough attention to the supply of bean food, resulting in the lowest frequency of bean consumption. Therefore, it is necessary to supplement the intake of related nutrients in the daily diet.
- (B) Young Trampoline Players have bad eating habits. The survey shows that the frequency of egg intake is low. 21.1% of the teenager trampoline athletes eat eggs less than three times a week. One of the athletes never eats vegetables, indicating that their dietary nutrition structures are unreasonable and they are subjective in food selection.
- (C) The use of nutritional supplements needs scientific guidance. The survey on the use of nutritional supplements found that 40.0% of teenager trampoline athletes do not take supplements, and 57.5% of athletes think it is imperative to supplement fortified foods or healthcare products to improve their training level. Although taking nutritional supplements is necessary, supplying it scientifically and reasonably under the guidance of nutritionists is more significant to promote the physical development of athletes as shown in Table 5.

## 4. Findings

**4.1. Significant Correlation between Total KAP Score and Dietary Nutrition Knowledge, Attitude, and Behavior of Teenager Trampoline Athletes.** There are significant correlations between dietary nutrition knowledge, dietary nutrition behavior, and dietary nutrition attitude. There exists significant correlation between dietary nutrition knowledge, attitude, and behavior and total KAP score of dietary nutrition. The total KAP scores of dietary nutrition, dietary nutrition knowledge, attitude, and behavior are inseparable. We can learn that there is a significant positive correlation between the total score of KAP and school stage. The higher school stage, the better the total score of KAP.

**4.2. Lack of Dietary Nutrition Knowledge.** Teenager trampoline athletes do not have a deep understanding of carbohydrates, fats, and proteins, along with understanding the sources of energy needed by the human body. It is a problem common to them, such as the lack of nutrition knowledge learning in training and the unclear relevance of nutrition knowledge. Most of their nutrition knowledge comes from team doctors, coaches, relatives, and friends. They also have a strong sense of subjectivity in food choices.

**4.3. Positive Attitude towards Dietary Nutrition.** Trampoline athletes have a good need for dietary nutrition, and they are more open to communicating with nutritionists

TABLE 5: Youth trampoline athletes KAP scores and evaluation list.

<i>(n = 40)</i>	Score(points)		Average score	Gender difference	Valuation
	Male ( <i>M</i> )	Female ( <i>F</i> )			
Dietary nutrition knowledge	6.0 ± 2.1	7.0 ± 1.3	6.5 ± 1.7	<i>F &gt; M</i>	Failing
Dietary nutrition attitude	6.6 ± 1.7	7.4 ± 1.9	7.1 ± 1.8	<i>F &gt; M</i>	Passing
Dietary nutrition behavior	12.2 ± 3.0	14.6 ± 2.8	13.4 ± 3.1	<i>F &gt; M</i>	Good

in one-on-one communication and changing bad dietary habits subjectively. They want to obtain more nutrition knowledge and have good nutrition enhancement programs for themselves.

**4.4. Dietary Nutrition Behavior Needs Reasonable Monitoring.** Teenager trampoline athletes do not clearly understand the relationship between diets, fortified food, and healthcare products. They do not know the frequency and method of eating fortified food and healthcare products. They also do not know the scientific way to reduce the fat.

## 5. Suggestions

**5.1. Dietary Nutrition-Related Courses Should Be Introduced.** In order to improve the nutritional knowledge reserve and cognition of teenager trampoline athletes, it is of utmost importance to conduct systematic diet nutritional studies, conduct regular dietary nutrition lectures, and distribute dietary nutrition knowledge manuals.

**5.2. Professional Dietitians Shall Be Equipped to Conduct Dietary Nutrition Matching and Monitoring.** It is suggested to change the traditional one-way communication mode and form a two-way interaction mode so that athletes and nutritionists can communicate with each other at any time. Meanwhile, nutritionists can help them solve the problems related to dietary nutrition and make individual dietary plans for them.

**5.3. Scientific Nutrition Supply.** It is suggested that the canteen provide a variety of food types, reduce fat as much as possible, increase food rich in sugar, carbohydrates, vitamins, and proteins, pay attention to the cooking method of food from braising, stir-frying, and frying to steaming and stir-frying, and retain more nutrients in vegetables. Athletes should be instructed to eat more oranges, kiwifruit, apples, and other vitamin-rich fruits along with drinks.

**5.4. Improving the Athletes' Dietary System and Dietitian's Archives System.** The sports team would be expected to establish different athletes' dietary systems and develop individualized dietary nutrition programs according to their training intensity, training volume, and other factors. At the same time, the sports team should also develop individualized nutrition files and dietary nutrition records to make dietary nutrition supplements that are specific to each individual. In order to manage nutritionists' archives and

incorporate them into assessment systems, regular nutrition lectures have been transformed into team services, which can handle problems encountered by athletes at any time and provide scientific monitoring.

The study conducted can not only influence the athletes in question but can also be applied to the overall teenagers. As teenagers have high metabolism rates squared nutritious meals can provide them with the balanced health. The balanced health will increase their performance in all their respective fields.

## 6. Conclusion

The proposed study in this article provides guidelines for nutritional values for athletes to keep their health fit. The study of attitude and behavior of teenager trampoline athletes is also performed to improve their dietary nutritional levels as well as their sports performance. To perform the study, a questionnaires based study is designed on athletes' diet nutrition knowledge, and the survey based samples were collected on the selected teenager trampoline athletes aged 10–17 as the survey objects. In is found that the dietary nutrition knowledge, attitude, and behavior are noteworthy correlated with each other. The dietary nutrition knowledge and dietary nutrition behavior are significantly correlated ( $P < 0.05$ ) and the dietary nutrition attitude and dietary nutrition behavior are also correlated remarkably ( $P < 0.05$ ). The dietary nutrition knowledge and dietary nutrition attitude do not exhibit strong correlation ( $P > 0.05$ ). The average score of dietary nutrition knowledge of teenager trampoline athletes is  $6.5 \pm 1.7$  (failing). The nutritional knowledge of teenager trampoline athletes is not systematic and the quality of nutrition information obtained by teenager trampoline athletes is low. The average score of dietary nutrition attitude of teenager trampoline athletes was  $7.1 \pm 1.8$  (good). The average score of dietary nutrition behavior is  $13.4 \pm 3.1$ . Teenager athletes have bad eating habits. Teenager trampoline athletes mainly rely on coaches, relatives, and friends to obtain nutritional knowledge. Therefore, the correct eating habits need to be strengthened and their dietary nutrition behaviors need to be reasonably monitored. Suggestions of the paper include providing relevant nutrition courses, increasing athletes' awareness of the importance of dietary nutrition, and using professional dietitians for dietary nutrition matching and monitoring.

## Data Availability

The data used are available from the corresponding author upon request.

## Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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