

Analysis on the Path of Food Safety Supervision in University Canteen——Take Hu'nan University of Arts and Science Furong College as an example

Xiali Liu

Hu'nan University of Arts and Science Furong College, Changde, Hu'nan 415000, China

Email: 1742425804@qq.com

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Abstract

With the expansion of college enrollment and the popularization of socialized operation of campus catering, food safety risks have become increasingly prominent, and how to build a scientific and effective supervision system has become an important research direction. Starting from the actual management work, this paper systematically analyzes the outstanding problems existing in university canteens from four aspects: personnel, technology, interests and emergency response ability, and puts forward countermeasures, aiming at providing management ideas and practical reference for university canteen managers.

Keywords

Practical Path; Food Safety; Emergency Response Ability

Introduction

Since last year, there have been "rat-headed duck-neck" incidents in a university in Jiangxi, bad meat incidents in a primary school in Yunnan and "rat-headed beef" incidents in a university in Hebei, which have sounded the alarm for campus food safety. Especially with the rapid increase in the number of college students and people's higher and higher requirements for healthy diet, the food safety problems in college canteens have attracted more and more attention from the society. Food safety in school canteens is directly related to the health of teachers and students, the growth and development of students, the safety and stability of schools and the good development of education in colleges and universities. General Secretary Xi Jinping emphasized at the National Education Conference that it is necessary to adhere to the people as the center, continuously improve the inclusiveness, accessibility and convenience of education public services, and make the achievements of education reform and development more fair and benefit all the people [1]. Promoting

the construction of food safety in colleges and universities is not only the direct cash withdrawal of the general secretary's "people-centered", but also the health guarantee of the school's "three-round education" work. Therefore, schools must take a highly responsible attitude, strictly control food safety, establish a more efficient and diversified food supervision system, and meet the requirements of canteens for "eating with confidence and eating with peace of mind".

1. Research background

Furong College is an ordinary undergraduate university located in Changde City, Hunan Province, with about 4,000 students. Teachers and students eat mainly in the school canteen, so it is particularly important whether its safety supervision is in place. At present, canteen safety supervision mainly has the following characteristics: First, entrust a social catering company (Changsha Yongjing Catering Management Co., Ltd.) to operate and manage, sign an operation and management contract, and clarify the rights and obligations of both parties. Second, two sets of management teams have been set up. The school has appointed food safety directors and food safety officers, and catering companies have also appointed food safety directors and food safety officers. The two sets of management personnel are responsible for preventing and controlling food safety risks. The centralized management department of the canteen is the logistics security department, which is responsible for unified management. Third, online and offline supervision is carried out at the same time. Online registration of "daily control, weekly investigation and monthly dispatch" is carried out by using the WeChat applet of "Food Safety Hunan" to ensure the authenticity and transparency of supervision information. Offline, field visits, inquiries and investigations are used to check whether there are any behaviors endangering food safety in distribution vehicles, cutting rooms, processing rooms and sales rooms, and the whole chain supervision of food from procurement to processing to sales is implemented. Fourth, the market supervision bureau of the joint government department jointly supervised, and took the food sampling test results and the guidance of the market supervision department as an opportunity to urge catering companies to prevent and control food safety risks in time, make up for loopholes in catering management services, and promote the modernization of school food safety governance system and governance capacity.

2. Research status

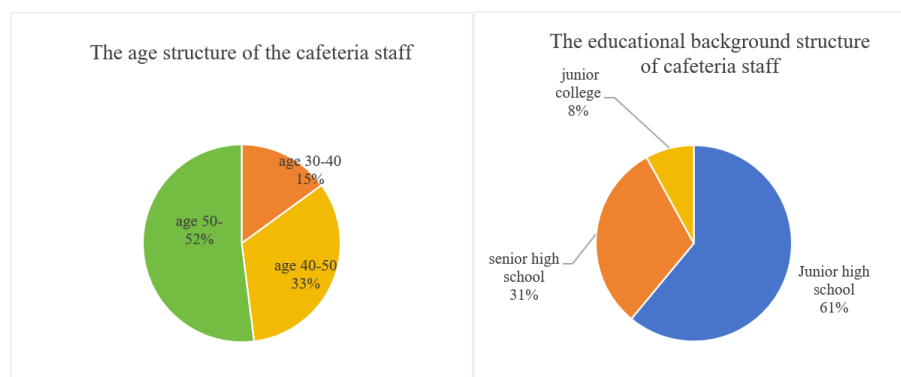
At present, scholars at home and abroad have done a lot of research on food safety supervision in colleges and universities. For example, Xu Zhoushuang, Yu Huajin and others have systematically analyzed and discussed how to develop food safety supervision in colleges and universities with high quality, emphasizing that new development concepts should lead food safety supervision in colleges and universities, innovation should drive the comprehensive upgrade of food safety supervision tools,

and pluralistic governance should promote the high-quality development of food safety [2]. By analyzing the food safety supervision strategy of college staff canteens, Li Tao concluded that the food safety level of school canteens can be improved by strengthening the management of food safety links and improving the comprehensive quality of canteen staff. These studies are not comprehensive enough for the analysis of regulatory measures. This paper takes the hidden dangers of food safety in the canteen of Furong College as the breakthrough point, and analyzes and discusses the countermeasures to improve the quality of food safety supervision, which has important reference significance for other private independent colleges to carry out food safety supervision.

3. Main problems of the current regulatory system

3.1 Uneven personnel

The key to the implementation of the system lies in people, and the implementation of the safety management system is directly related to the realization of regulatory energy efficiency. According to statistics, 52% of the staff in the canteen of the college are over 50 years old, and 92% of them have high school education or below. They are generally older and have low educational background. The contradiction between the professional quality and professional skills of the staff and the strict requirements of high standards of food safety has become increasingly prominent, which makes it difficult to adapt to the requirements of "educating people" in the new era. On the other hand, the mobility of employees and the low threshold of employment lead to the lack of necessary training and skills for employees [4], and the teaching of newcomers can only start from scratch, which seriously reduces the training effect in the early stage. Therefore, when implementing the food safety management system, there is often a state of being tired of coping and superficial. The "bad meat incident" in Yunnan is caused by poor sense of responsibility and irregular operation.



3.2 Profit-seeking mentality expands

The core goal of college canteens should be to serve teachers and students. However, driven by interests, some canteen employees, including contractors, stall owners or purchasing personnel, may take measures such as reducing costs, sacrificing quality and raising prices in disguise to make profits, which directly affects food safety and students' rights and interests. Mainly manifested in the following aspects: First, lower the cost of food materials and purchase inferior raw materials. Choose low-priced, temporary or unknown ingredients, such as "zombie meat" and stale vegetables. Reduce the proportion of high-quality protein, such as meat and eggs, and increase the proportion of cheap fillers, such as starch and artificial meat. Second, disguised price increases and implicit charges. Reduce the amount of a single dish, but the price remains unchanged, or the phenomenon of "less meat and more vegetables" when cooking. Third, neglect health and safety and reduce necessary investment. Reduce the frequency of disinfection and cleaning, and reduce labor costs. Use overnight leftovers for processing and selling, or purchase and use inferior cooking oil and condiments without permission.

3.3 Technical means lag

The lag of supervision technology in university canteens has become a key bottleneck affecting food safety, cost control and operational efficiency. The core problems of supervision technology lag are as follows: First, relying on manual inspection, kitchen monitoring is limited to video recording, lacking AI behavior recognition, personnel illegal operation cannot be immediately identified and prevented, and supervision timeliness lags behind. Health inspection, food traceability and other links lack real-time and transparency. . Second, relying on paper records is prone to data omission, fraud or delay. There is a risk of "yin and yang ledger" when using manual ledger. Inventory is recorded by Excel, and the waste rate of ingredients is high (about 15%-25%). Third, it is difficult to coordinate data, and the data in procurement, inventory, processing and sample retention are scattered, which makes it difficult to integrate and analyze. Fourth, the early warning of safety risks is insufficient, and it is impossible to predict potential risks through data analysis, such as food deterioration and cross-contamination. Students' public opinion monitoring channels are single, and big data analysis and early warning risk points are not fully utilized.

3.4 Insufficient emergency response capability

Food safety emergencies are random, and once accidents occur, it is necessary to respond to the emergency treatment mechanism immediately. However, in the process of management, the following problems are prone to occur: First, the emergency plan is a mere formality, some colleges and universities have not established a rapid response mechanism for foodborne diseases, and the contents of the plan do not cover medical first aid, site sealing and control, immediate reporting, coopera-

tion with investigation, communication and guidance, public opinion control and other aspects. Second, the operability of the plan is poor, and the emergency plan of some college canteens stays in paper documents, and the frequency of emergency drills is insufficient, which is lower than the prescribed 4 times a year. Second, there is a lack of monitoring and early warning, and there is a lack of intelligent early warning systems for food safety, fire and equipment failure, and accident detection lags behind. Third, the disposal efficiency is low, the management of emergency materials is chaotic, some fire extinguishers are placed at will, the qualified rate of emergency skills of staff is low, and some staff can't use fire extinguishers, cardio-pulmonary resuscitation and other first aid measures.

4. Countermeasures and suggestions for optimizing supervision

4.1 Optimizing Employee Management Services

Organizing food safety knowledge training and skills assessment regularly can effectively improve employees' professional quality and sense of responsibility [5]. In view of the uneven quality of personnel, it can be systematically optimized from three dimensions: selection mechanism, training system and supervision and assessment, and a scientific management plan can be formulated. First, establish a graded access mechanism. Core chefs use both health certificates and chef certificates to take up their posts, plus one year's experience in big meals. Other service posts and work-study posts need to hold health certificates, plus pre-job safety training and etiquette training, and pass the food safety knowledge assessment before taking up their posts. A probation period of 15 days is implemented for new employees, and employees who can adapt to standard operation are preferred. The second is to establish a step-by-step training system, in which all employees can learn emergency skills such as GB31654-2021 National Standard for Food Safety, General Hygienic Standard for Catering Services, fire fighting and preliminary treatment of food poisoning, and invite medical staff and firefighters to carry out training and drill once every quarter to improve practical skills. Distinguish chefs, catering staff, cleaning staff, part-time students and other positions to carry out operation training, and carry out the guidance of passing on the old and bringing the new to enhance business ability. Third, intelligent supervision and incentives are set up, AI cameras are used to identify illegal operations such as not wearing masks, and students who fail to meet the hygiene standards for three times are transferred from food operation posts, and material rewards are given to employees with outstanding performance and high student satisfaction, so as to encourage employees to improve their professional quality and sense of responsibility.

4.2 Balancing Interests and Operations

The key to solve the profit-seeking problem of university canteens lies in clarifying the public welfare orientation of education and balancing public welfare and sus-

tainable operation through system design. As far as the school is concerned, the cost of canteen can be controlled by reducing rent and giving subsidies, instead of being completely market-oriented. Introduce competition mechanism, open a number of catering companies to settle in, support online selling meals, and give students more choices. Set up a "parity guarantee window", which is directly operated or subsidized by schools to ensure adequate supply of basic meals. As far as enterprises are concerned, the assessment mechanism can be optimized, and "food safety" and "student satisfaction" can be included in KPI, instead of focusing on turnover. By setting up a "blacklist" system, the illegal contractors will be fined, suspended for rectification or permanently banned. As far as students are concerned, they can participate in the governance, set up a "Student Meal Committee", regularly check food safety, and have the right to complain to the school. Implement the "canteen scoring system", in which students score each stall and rectify or eliminate the low-score window within a time limit. As far as the government is concerned, the market supervision department carries out "surprise inspection + irregular sampling inspection" to ensure health and safety and food quality. Only when the school, enterprises, students and the government cooperate, can an economical, safe and healthy campus catering environment be built.

4.3 Optimize the technical means of supervision

Through technical upgrading, canteen supervision has changed from "passive response" to "active prevention", and management efficiency and credibility have been improved. At the same time, we should choose the applicable technology according to the actual situation, so as to avoid blindly pursuing "being tall" and ignoring practicality. On the one hand, AI analysis is introduced to gradually replace manual inspection. For example, AI monitors the kitchen behavior, and cameras identify violations such as not wearing work clothes, smoking, and rats. At the same time, food quality is monitored, and AI analyzes the appearance of ingredients, such as meat deterioration and vegetable decay, which can respond immediately. On the other hand, establish a basic data platform, integrate data such as procurement, inventory, loss reporting and complaints, generate visual reports, and upload them to the cloud platform. Through these data, we can predict the daily demand for ingredients, reduce waste, and identify high-risk links. If the unqualified rate of ingredients of a supplier is high, it needs to be adjusted in time. The whole process from procurement to use of every food raw material needs to be clearly recorded, and suppliers must provide relevant quality certificates and inspection reports [6]. By integrating these data, a whole chain visual data platform is formed, which is displayed through the mobile terminal and forms a whole chain supervision. Open the live broadcast of the kitchen to teachers and students, and open the scan code to check the origin of ingredients, test reports, transportation records and other information, so as to increase public trust and let every teacher and student participate in the supervision.

4.4 Optimize emergency response capability

The improvement of emergency response ability of canteen should be changed from "passive response" to "active prevention and control". By integrating emergency drills and emergency management into daily work, a rapid response mechanism can be effectively established. First, a hierarchical risk mechanism can be established for hierarchical management, as shown in the following table:

Table 1. Risk levels of canteen supervision

Risk level	Risk factors	Coping strategies
Level 1	Low-risk situations such as occasional unqualified cold chain transportation and occasional substandard storage temperature	Regular supervision and rectification within a time limit
Level 2	Medium risk situations such as mixed raw and cooked, incomplete heating, etc.	Strengthen supervision and immediately rectify
Level 3	Suspected food poisoning, fire and other high-risk situations	In case of food poisoning, seal up samples and report them immediately. In case of fire, organize fire fighting and report them immediately.

Secondly, simplify the treatment process and strengthen the actual combat drills, shorten the response chain and enhance the treatment timeliness according to the process of "emergency-preliminary treatment by canteen manager-starting plan by food safety director-treatment by school-level emergency team". In terms of the accuracy and timeliness of rapid response, colleges and universities must have a set of detailed emergency plans, which should be tested and continuously improved through drills [7]. For example, simulating sudden food poisoning, sudden fire, sudden Norovirus spread and other scenarios, carrying out scriptless drills, randomly selecting employees to assess fire fighting operation, cardiopulmonary resuscitation and other skills, at least once every quarter, so as to enhance the disposal ability through actual combat drills. Finally, we can consider increasing equipment investment. For example, colleges and universities invest 1% of canteen revenue in emergency equipment update and personnel training, invest funds to develop emergency treatment APP, build in common accident treatment operation guidelines, and push disposal steps with one click in case of poisoning, which can be used as both learning software and operation guidelines.

Conclusion

Taking Furong College as an example, this paper discusses the path of food safety supervision in canteens, and puts forward some innovative supervision strategies from four aspects: personnel, technology, interests and emergency response ability, which provides reference for food safety supervision in colleges and universities in the future. Generally speaking, food safety supervision in colleges and universities should change from passive response to active prevention and control, and realize

"intelligent supervision" through institutional innovation and technological empowerment. At the same time, we should pay attention to the public welfare attribute of education, seek a balance between ensuring food safety and controlling costs, and build a modern food safety governance system that adapts to the characteristics of Chinese universities.

References

- [1] Ministry of Education of the People's Republic of China. At the National Education Conference, Xi Jinping emphasized that he should make solid progress towards the strategic goal of building a strong country in education[EB/OL].(2024-09-10)[2025-4-21].
http://www.moe.gov.cn/jyb_xwfb/s6052/moe_838/202409/t20240910_1150246.html
- [2] Xu Zhoushuang, Yu Huajin, etc. Analysis on the high-quality development path of food safety supervision in colleges and universities-taking Zhejiang University as an example[J]. China Food Safety, 2024 (11): 57-61
- [3] Li Tao. Research and implementation of food safety supervision strategy in faculty canteen of colleges and universities-taking Changjiang Normal University as an example[J]. Food Industry, 2025(01): 114-116
- [4] Xing Jingjing. Present situation and promotion strategy of food safety supervision in small food processing workshops[J]. Food Safety Guide, 2023 (11): 14-16
- [5] Ji Lei. Research on the Quality Supervision Standard of University Canteen under the New Situation [J]. China Food, 2024 (22): 90-92.
- [6] Tang Wei, Mao Haiyan, Mo Ruyan, et al. Application of HACCP System in College Student Canteen Management [J]. Modern Food, 2022 (19): 117-121.
- [7] Wu Wen. Research on network public opinion processing of sudden food hygiene and safety incidents in colleges and universities[J]. Chinese food, 2024(24): 59-61