Journal of Environmental and Public Health

Air Pollution and Cardiovascular and Cerebrovascular Diseases

Lead Guest Editor: Shao Liang
Guest Editors: Xinyong Cai and chengxue qin

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Retraction

Retracted: Analysis on the Development and Influence of National Fitness Environment on Youth Basketball Coordination and Mental Health

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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] P. Lu and Y. Su, "Analysis on the Development and Influence of National Fitness Environment on Youth Basketball Coordination and Mental Health," *Journal of Environmental and Public Health*, vol. 2022, Article ID 6340347, 12 pages, 2022.

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Retraction

Retracted: The Problems of "Mental Health Trend" in the Ideological and Political Management of College Students Under the Network Environment

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Retraction

Retracted: Effects of Physical Exercise on Physical Fitness and Mental Health of Obese Students

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Retraction

Retracted: The Integration of Legal Education and Mental Health Education of College Students in the Contemporary Network Environment Facing the Cultivation of Civic Awareness

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[1] Y. Li, C. Bao, and M. Liu, "The Integration of Legal Education and Mental Health Education of College Students in the Contemporary Network Environment Facing the Cultivation of Civic Awareness," *Journal of Environmental and Public Health*, vol. 2022, Article ID 4858156, 9 pages, 2022.

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Retraction

Retracted: On the Problems and Countermeasures of College Students' Mental Health and Safe Work under Network Environment

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Retraction

Retracted: The Application of Mental Health Teaching Method and Special Teaching Method in College Chinese Teaching under the Network Environment

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Research Article

Exploration and Practice of the Relationship between College Students' Learning Adaptation and Mental Health under the Information-Based Teaching Environment of Potential Profile Analysis

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In order to further investigate and understand the relationship between college students' learning adaptation process and mental health in the learning process under the information-based teaching environment, this paper makes a questionnaire survey on college students' learning adaptation and mental health and selects 408 college students as the research object. The results show that the potential profile analysis shows that with the development of network and informatization, the learning adaptability of college students can be divided into four types: troubled group (accounting for 7.598%), marginal adaptive group (accounting for 42.892%), maladaptive group (accounting for 4.167%), and good adaptive group (accounting for 45.343%). The mental health level of the latter two is better, and the mental health level of the first two is worse. Students who do not adapt to learning and students who adapt well show common characteristics. Most of them are only children, and their parents have a high level of education. This kind of family often has good material conditions and loose family atmosphere, which will also form a protective mechanism for students' mental health, making students have good self-acceptance ability and good mental health level.

1. Introduction

The rapid development of network and information technology has promoted the development of many industries, especially the rapid development of information technology, which provides more technical choices and mode innovation drivers for the improvement of modern teaching methods and teaching quality. In the information-based teaching environment, students' learning process is no longer limited by the "time and space" of traditional education, and information technology can provide students with more personalized learning methods and learning contents. Compared with traditional face-to-face teaching and classroom teaching, the transformation of teaching methods will also require students to constantly adjust their learning methods. Teachers need to change, and students also need to change [1]. However, the level of students' learning adaptability directly affects the learning effect. Some students will have maladjustment in the face of the environmental changes brought by the information environment, while some students will have strong interest in learning and can adapt well due to the novel learning methods, and different adaptation results will even affect students' mental health and indirectly affect their learning status, which is also the focus of this study.

2. Literature Review

Some scholars believe that learning adaptability includes not only students' learning potential but also students' learning motivation, clear learning purpose, actions taken to meet academic requirements, and general satisfaction with the learning environment [2]. The expression of the concept of learning adaptation, that is, learning adaptability, refers to the tendency of individuals to overcome difficulties and achieve better learning results, that is, learning adaptability.

Its main factors include learning attitude, learning technology, learning environment, and physical and mental health. At the same time, some scholars have defined learning adaptation. For example, Kelzang and Lhendup believe that learning adaptability refers to the ability tendency of students to adjust themselves to the learning environment in the learning process [3]. Xiao believes that learning adaptability is "when the learning environment, learning objects, and contents around individuals change, individuals take the initiative to overcome difficulties and change themselves in order to avoid the decline of learning efficiency, so as to achieve good learning efficiency" [4]. Kim et al. define learning adaptability as the ability of individuals to actively adjust their learning motivation and behavior, improve their learning ability, coordinate their learning psychology and behavior with the changing learning conditions, and achieve good learning achievements according to the changes of internal and external learning conditions and their own learning needs [5]. Jeong believes that learning adaptability is the psychological ability of individuals to actively react to the surrounding environment with certain behaviors and actions in the process of interaction between individuals and learning environment [6]. Mahasneh believes that learning adaptation is a psychological and behavioral process in which the subject tries to adjust himself according to the environment and learning needs, so as to achieve a balance with the learning environment. Chinese scholars have put forward their own different views and views on the concept of learning adaptation from their respective perspectives [7].

In view of the unique characteristics of Chinese college students' learning adaptability, some scholars have developed a scale suitable for measuring Chinese college students' learning adaptability. For example, based on the "learning adaptability test (middle school version)," the "college students' learning adaptability questionnaire" is compiled according to the age and learning characteristics of college students. On the basis of previous studies, a set of learning adaptability scale for college students is compiled. The questionnaire is divided into five dimensions: learning motivation adaptation, learning ability adaptation, learning environment adaptation, education style adaptation, and physical and mental health adaptation. There are 50 items in this questionnaire. The three-level scoring method is adopted. The higher the score, the better the learning adaptability. The content of the questionnaire includes two dimensions of learning motivation and learning adaptive learning behavior, as well as eight factors such as professional interest, autonomous learning, stress response, method application, help-seeking behavior, environmental choice, information utilization, and knowledge application, with a full score of five points [8, 9].

At present, the research on the learning adaptability of college students in China is still in the exploratory stage compared with the research on the learning adaptability of primary and secondary school students. The research on college students mostly focuses on the investigation and research on the learning adaptability of college freshmen. The existing literature shows that the research content of college students' learning adaptability in China also focuses on two aspects. One is the discussion of the factors affecting college students' learning adaptability. The other is that Chinese scholars have compiled some learning adaptability questionnaires suitable for Chinese college students according to their own characteristics. Scholars in China have conducted some investigation and research on the factors affecting college students' learning adaptability, as shown in Figure 1, which shows the common confusion of college students [10]. Through the investigation, it is found that college students' learning adaptability is mainly affected by many factors, such as students' own cognitive evaluation, personality characteristics, school environment, family education methods, and social support. In the aspect of cognitive evaluation, this paper studies the relationship between higher vocational college students' self-concept, coping style, and learning adaptability. The conclusion is that the total score of self-concept is significantly negatively correlated with the overall learning adaptation score, and the mature coping style is highly significantly positively correlated with the overall learning adaptation. Immature coping style has a very significant negative correlation with overall learning adaptation [11]. Some scholars have concluded that there is a close relationship between self-harmony and learning adaptability of normal college students. The research shows that there is a significant positive correlation between college students' learning adaptability and learning self-efficacy and the total score of career commitment [12].

3. Bayesian Analysis of Latent Variable Model under Random Effect

3.1. Random Effect Model. The random effect model is as follows:

$$y_i = x_i\beta + u_i + \varepsilon_i,\ i = 1, \ldots, n, \tag{1}$$

where

$$\beta = \left(\beta_1, \beta_2, \ldots, \beta_q\right)^T, \tag{2}$$

and y_i, x_i are datasets, which are recorded as follows:

$$\begin{aligned} Y &= \left(y_1, y_2, \ldots, y_n\right)^T, \\ X &= \left(x_1, x_2, \ldots, x_n\right)^T, \end{aligned} \tag{3}$$

$$x_i = \left(1, x_{i1}, x_{i2}, \ldots, x_{iq}\right). \tag{4}$$

Generally, it follows the normal distribution with mean value of 0 and standard deviation of σ_u. In mean regression, it is generally assumed that the error term ε_i follows the error term with mean value of 0 and variance of σ_ε^2. Here, we consider quantile regression, so it is assumed that ε_i follows the Laplace distribution with unknown parameter of 0 and scale parameter of σ, that is,

$$\varepsilon_i \sim \mathrm{ALD}\left[0, \sigma\right]. \tag{5}$$

Its density function is as follows:

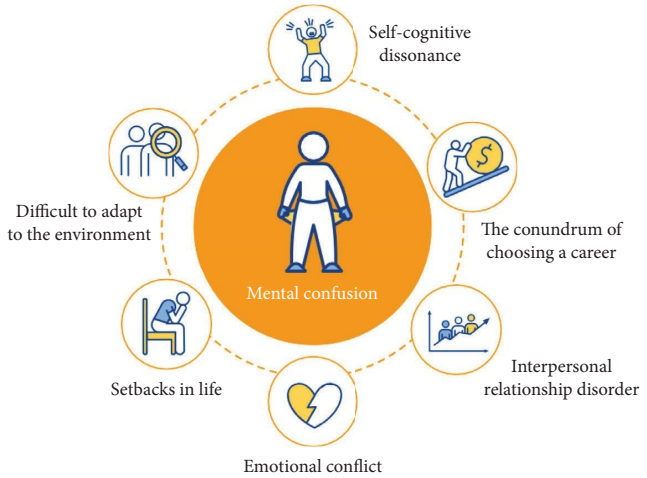

Figure 1: Common puzzles of college students.

$$f_p(\varepsilon_i; p, \sigma) = \frac{p(1-p)}{\sigma}\exp\left\{-\rho_p(\varepsilon_i)\right\}, \tag{6}$$

where the form of $0 < p < 1; \rho_p(\varepsilon_i)$ is as follows:

$$\rho_p(\varepsilon_i) = \frac{|\varepsilon_i| + (2p-1)\varepsilon_i}{2\sigma}. \tag{7}$$

Then, the likelihood function of the random effect model can be written as

$$L(\theta \mid Y, X) = \frac{p^n(1-p)^2}{\sigma^n}\exp\left\{-\sum_i^n \rho_p\left(\frac{y_i - x_i\beta - u_i}{\sigma}\right)\right\}. \tag{8}$$

This method needs to extract samples from a posteriori distribution $[\theta|Y, X]$ and then obtain an empirical distribution close to the real distribution according to the samples, which can characterize the characteristics of a posteriori distribution.

Assume that the a priori distribution of β is as follows:

$$\beta \sim N[b, V\sigma], \tag{9}$$

where b is the column vector of q dimension; when the observation values Y and X are given, the diagonal matrix of order $q+1$ of formula V is as follows:

$$p(\beta, Y \mid U, X, \sigma) = L(\theta \mid Y, X)p(\beta) = p(\beta)(\beta \mid Y, U, X, \sigma)p(Y). \tag{10}$$

The posterior distribution of β is obtained. If the prior and posterior distributions obey the same type of distribution, this prior distribution is called conjugate prior distribution. Assume a priori distribution of U:

$$U \sim N\left[b_u, I\sigma_u^2\right], \tag{11}$$

where the column vector of n dimension of formula b_u and the unit diagonal matrix of order n of formula I are composed of conditional distribution:

$$\begin{aligned} p(U, Y \mid \beta, X, \sigma) &= L(\theta \mid Y, X)p(U) \\ &= p(U)(U \mid Y, \beta, X, \sigma)p(Y). \end{aligned} \tag{12}$$

After obtaining the prior distribution of U, there is the following process:

$$\begin{aligned} p(U, Y \mid \beta, X, \sigma) \propto L(\theta \mid Y, X)p(U) &\propto \left(\frac{p(1-p)}{\sigma}\right)^n \exp\left\{-\sum_i \rho_p\left(\frac{y_i - x_i\beta - u_i}{\sigma}\right)\right\}, \\ &\left|I\sigma_u^2\right|^{-1/2}\exp\left\{-\frac{1}{2}(U-b_u)^T(I\sigma)^{-1}(U-b_u)\right\}, \\ \propto (p(1-p))^n\sigma^{-n}\sigma_u^{-n}\exp&\left\{-\sum_i \rho_p\left(\frac{y_i - x_i\beta - u_i}{\sigma}\right) - \frac{1}{2}(U-b_u)^T\left(I\sigma_u^2\right)^{-1}(U-b_u)\right\}. \end{aligned} \tag{13}$$

Suppose the conjugate a priori distribution of σ_u^{-2} is as follows:

$$\sigma_u^{-2} \sim \text{Gamma}[a_1, r_1], \tag{14}$$

where a_1, r_1 are superparameters, which can be obtained from the conditional distribution:

$$p\left(U, \sigma_u^{-2} \mid Y\right) = p\left(\sigma_u^{-2} \mid U, Y\right) p(U) \propto p\left(U \mid Y, \sigma_u^{-2}\right) p\left(\sigma_u^{-2}\right). \tag{15}$$

If the hyperparameters in the conjugate a priori distribution are unknown, they should be regarded as unknown parameters with a priori distribution. However, these prior distributions also have their own superparameters, so it will be difficult to extract samples. Therefore, for the convenience of research, the hyperparameters in the conjugate a priori distribution are set to known values.

The simulation of the random effect model is as follows:

$$\begin{aligned} y_i &= 0.5 + 0.7x_{i1} + 0.7x_{i1} + 0.7x_{i1} + 0.7x_{i1} \\ &\quad + u_i + \varepsilon_i, i = 1, \ldots, n. \end{aligned} \tag{16}$$

Assumptions:

$$b = (2, \ldots, 2)_{(q+1)\times 1}^{T}. \tag{17}$$

Adiagonal matrix in which the diagonal elements of the formula V are 0.5 and $q+1$ dimensions.

$$b_u = (2, \ldots, 2)_{(n+1)}^{T}. \tag{18}$$

I is an n-order unit matrix, and $\sigma_u = 0.5$. First, 50 sets of simulation datasets with a sample size of $n = 100$ are produced. In this example, we need to estimate $\beta, \sigma, U, \sigma_u$, iterate 10000 times, and do 50 repeated calculations. The EPSR values of the parameters are close to 1, which are 0.968, 0.984, 0.975, and 0.989, respectively, indicating that the simulation process converges. Therefore, the first 9000 times are discarded and the last 1000 times are taken as the simulation results. Figures 2–5 represent the straight line diagram under different quantiles corresponding to different beta values.

Then, 50 groups of simulation datasets with sample size of $n = 30$ and 50100 are generated, and 50 repeated calculations are made, respectively. Assuming $q = 4$, the calculation model is iterated 10000 times each time, the first 9000 times are discarded, and the last 1000 times are taken as the simulation results. Considering the difference of samples and the deviation of calculated estimates, the root mean square between the actual value and the corresponding estimated value is defined as follows:

$$\theta(k) = \left\{ \frac{1}{50} \sum_{d}^{50} \left[\widehat{\theta}_d(k) - \widehat{\theta}_0(k) \right]^2 \right\}^{1/2}. \tag{19}$$

The following results are given. Tables 1–3 reveal the true value, estimated value, deviation, and root mean square of parameters under different samples.

From the results of deviation and root mean square, it can be seen that even in the case of small samples ($n = 30$), the deviation value is acceptable because more than 80% of the deviation value is less than 0.05, that is, the effective value

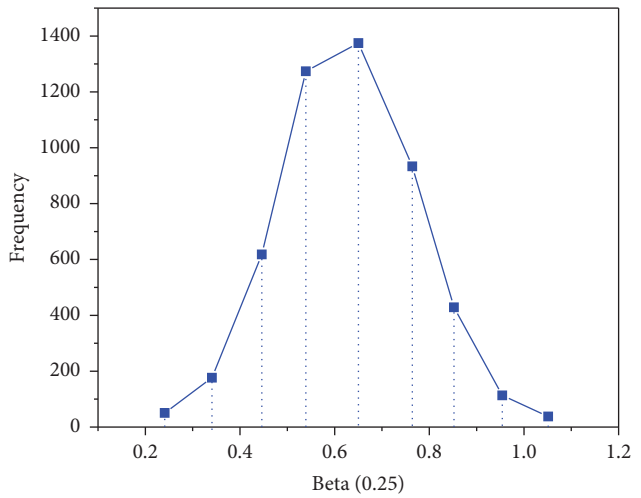

Figure 2: Straight line diagram under different quantiles (beta = 0.05).

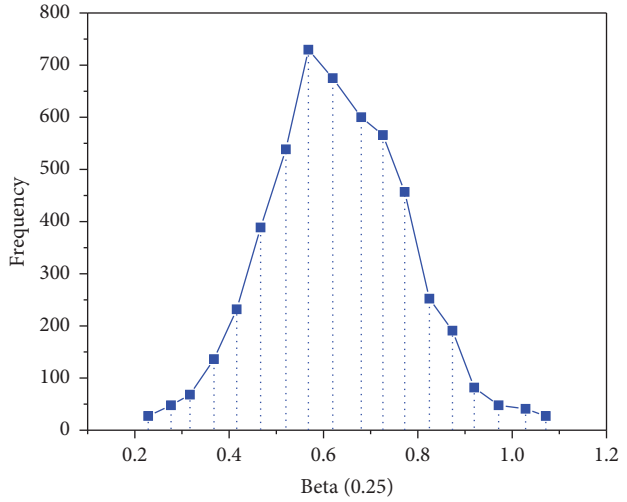

Figure 3: Straight line diagram under different quantiles (beta = 0.25).

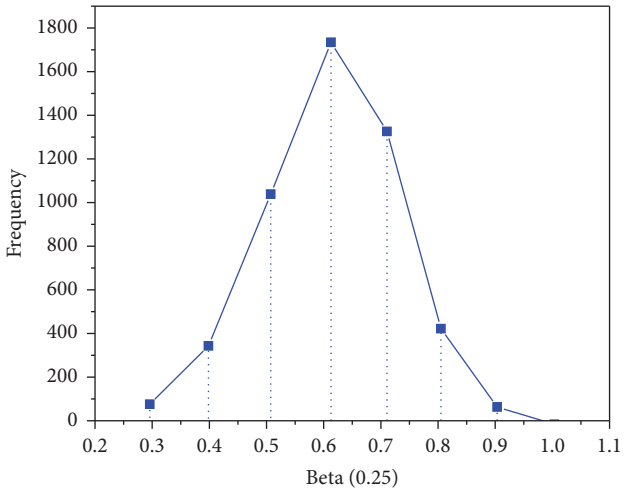

Figure 4: Straight line diagram under different quantiles (beta = 0.75).

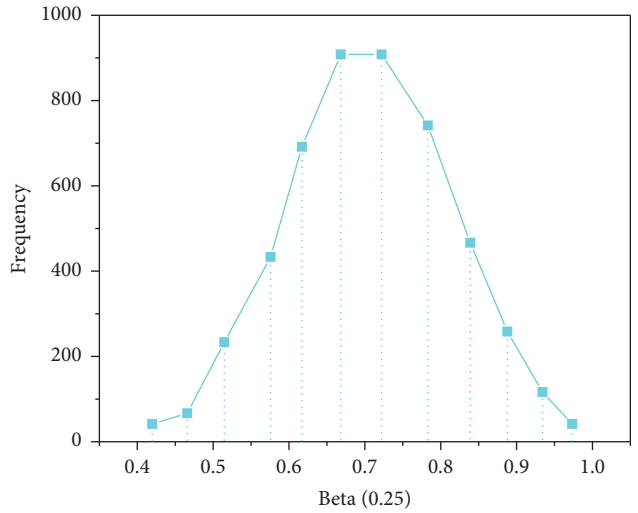

Figure 5: Straight line diagram under different quantiles (beta = 0.95).

Table 1: $n = 30$.

Parameters	True value	Estimated value	Root mean square	Deviation
β_0	0.5	0.560	0.050	0.060
β_1	0.7	0.657	0.041	0.025
β_2	0.7	0.734	0.042	0.034
β_3	0.7	0.667	0.049	0.033
β_4	0.7	0.742	0.042	0.042
σ_u	0.8	0.950	0.162	0.150

Table 2: $n = 50$.

Parameters	True value	Estimated value	Root mean square	Deviation
β_0	0.5	0.540	0.032	0.040
β_1	0.7	0.680	0.042	0.020
β_2	0.7	0.730	0.039	0.030
β_3	0.7	0.670	0.042	0.030
β_4	0.7	0.722	0.040	0.022
σ_u	0.8	0.860	0.086	0.060

Table 3: $n = 100$.

Parameters	True value	Estimated value	Root mean square	Deviation
β_0	0.5	0.520	0.025	0.020
β_1	0.7	0.669	0.044	0.031
β_2	0.7	0.672	0.036	0.028
β_3	0.7	0.680	0.032	0.020
β_4	0.7	0.673	0.037	0.027
σ_u	0.8	0.792	0.007	0.008

is about 95%. In terms of root mean square, with the increase of sample size, the root mean square of σ_u and β_0 decreases uniformly, indicating that the sample size has an impact on the estimation results. To sum up, all the results can show that Bayesian estimation is also close to the real value in the case of small samples, which is consistent with the theoretical results.

4. Results and Analysis

4.1. Relationship between Students' Learning Adaptation and Mental Health in Information-Based Teaching Environment. Similar to the definition of mental health, different researchers have different opinions on the definition of mental health standards. Maslow believes that a person with the personality characteristics of self-expression is a person with mental health. Drawing on the achievements of researchers at home and abroad, this paper summarizes six standards of mental health: a correct understanding of reality; self-knowledge, self-esteem, and self-acceptance;self-regulation ability [13, 14]; the ability to establish close relationships with people; stability and coordination of lattice structure; and life enthusiasm and work efficiency [15].

Adaptability has always been considered to be closely related to the level of mental health. Kusuma et al. even believe that adaptation to life is one of the constituent elements of mental health [16]. Learning adaptation will not only have a direct impact on students' academic performance but also affect students' psychological development and mental health level. Research shows that there is a significant positive correlation between learning adaptability and mental health. The mental health level of students with high learning adaptability is significantly better than that of students with low learning adaptability [17, 18].

4.2. Research Methods. 408 students and junior middle school students from the two places were randomly selected to investigate the students' learning situation under the information-based teaching environment (including the basic situation survey, the students' learning adaptability questionnaire, and the mental health questionnaire under the information-based teaching environment) through the network platform developed by the Department of Educational Technology in the University. All students surf the Internet through the computer room of their school and complete the questionnaire anonymously on the Internet. There are 133 primary school students (21 in grade 2, 59 in grade 3, and 53 in grade 4) and 275 junior middle school students (220 in grade 1 and 55 in grade 2), with an average age of 11.75 years; 214 boys and 194 girls; 210 in Beijing and 198 in Guangdong; 382 Han people and 26 ethnic minorities; 227 only children and 181 non-only children; father's education level: 4.9% in primary school, 50.5% in middle school, 32.6% in university, and 12% in master's degree or above; and mother's education level: 8.6% in primary school, 47.1% in middle school, 32.8% in university, and 11.5% in master's degree or above.

4.2.1. Research Tools. Based on the self-regulated learning theory, we propose that students' learning adaptation in the information-based teaching environment includes five dimensions: learning motivation, information acquisition methods, metacognitive strategies, knowledge acquisition, and knowledge expansion [19]. Learning motivation refers to the internal motivation that directly promotes students' learning; information acquisition means the ability to obtain

learning resources through information technology; metacognitive strategy refers to the strategy of controlling the process of information and monitoring and guiding the cognitive process; knowledge acquisition and knowledge expansion focus on students' ability to understand and apply knowledge at different stages of the learning process [20]. The questionnaire on students' learning adaptability in the information-based teaching environment (initial version) includes 40 questions, including 8 questions on learning motivation, 6 questions on information acquisition, 8 questions on metacognitive strategies, 12 questions on knowledge acquisition, and 6 questions on knowledge expansion. Using a 4-point score, the subjects are required to respond to the degree of conformity between the situation presented by the questionnaire and themselves according to their actual situation in the past week. The degree of conformity is as follows: very inconsistent (1), relatively inconsistent (2), relatively consistent (3), and very consistent (4). The Mplus robust maximum probability method (MLR) was used for confirmatory factor analysis. According to the correction index, delete the questions with higher correction index. The subscales of the final questionnaire are 6 questions of learning motivation dimension, 4 questions of information acquisition method dimension, 5 questions of metacognitive strategy dimension, 6 questions of knowledge acquisition dimension, and 5 questions of knowledge expansion dimension. χ^2 value is 810.01, DF is 289, CFI is 0.94, TLI is 0.94, SRMR is 0.03, and RMSEA (90% CI) is 0.069 (0.063, 0.074). The correlation between each topic and the total score is greater than 0.35, indicating that the topic has a good discrimination. The homogeneity reliability (α coefficient) of the total scale is 0.80, and the homogeneity reliability (α coefficient) of each subscale is more than 0.82. In short, the self-made questionnaire on students' learning adaptability in the information-based teaching environment has good reliability and validity [21, 22].

4.2.2. Self-Compiled Student Mental Health Questionnaire. Through literature review, expert discussion, and interviews with primary and secondary school students, this paper summarizes five dimensions of primary and secondary school students' mental health: learning, self, society, emotion, and behavior. Learning refers to the ability of self-regulated learning, including the development of attention, critical thinking, and creative thinking; self includes self-concept, self-evaluation, and self-regulation; society mainly investigates interpersonal relationships, including parent-child, teacher-student, and classmate relationships; emotion mainly refers to the ability of emotion regulation [23]; behavior refers to students' behavior problems such as aggression, hyperactivity, and violation of discipline. Accordingly, we have preliminarily formed a student mental health questionnaire under the information-based teaching environment, with a total of 119 questions, which adopts a 5-point score (0–4). Subjects were asked to answer the severity of the questions in the questionnaire within one week according to their physical and psychological conditions. 0 means no, and 4 means serious. The higher the total score of the questionnaire, the more unhealthy the psychology is [24]. The results of exploratory and confirmatory factor analysis were not ideal. After expert discussion, the questionnaire was modified and a 67-question questionnaire was obtained, including 15 questions on learning dimension, 10 questions on self-dimension, 14 questions on social dimension, 13 questions on emotional dimension, and 15 questions on behavioral dimension. 613 pupils and junior middle school students were tested for the second time, and Mplus7 robust maximum probability method (MLR) was used for confirmatory factor analysis. According to the correction index, delete the questions with higher correction index. The subscales of the final questionnaire are 9 questions of learning dimension, 8 questions of self-dimension, 8 questions of social dimension, 7 questions of emotional dimension, and 15 questions of behavior dimension. χ^2 value is 1242.79, DF is 726, CFI is 0.91, TLI is 0.90, SRMR is 0.05, and RMSEA (90% CI) is 0.034 (0.031, 0.037). The discrimination of the questions is good, and the correlation between each question and the total score is greater than 0.50. The homogeneity reliability (α coefficient) of the total scale is 0.96, and the homogeneity reliability (α coefficient) of each subscale is more than 0.75. In short, the self-made student mental health questionnaire has good reliability and validity and meets the requirements of psychometrics. Considering the intersection between the learning dimension and learning adaptability in the mental health questionnaire, we removed the learning dimension when analyzing the relationship between learning adaptability and mental health [25].

4.3. Result Analysis. Mplus7.0 software and SPSS16.0 software programs were used for data processing and statistical analysis. Using potential profile analysis, this paper discusses the potential categories of students' learning adaptation in the information-based teaching environment composed of five dimensions. Analysis of variance was used to explore the differences of students with different learning adaptation categories in each dimension and total score of mental health.

4.3.1. Descriptive Statistics of Students' Learning Adaptability and Mental Health. The descriptive statistical results are shown in Table 4. The analysis shows that there is a positive correlation between the dimensions and total scores of the learning adaptability questionnaire and the dimensions and total scores of the mental health questionnaire. There is a negative correlation between the dimensions and total scores of the learning adaptability questionnaire and the dimensions and total scores of mental health, and $ps < 0.01$. In addition, the average scores of each dimension and total score of the learning adaptability questionnaire are greater than 3 points. The highest and lowest dimensions are knowledge acquisition dimension (3.370) and knowledge expansion dimension (3.122), respectively. The scores of each dimension and total score of mental health questionnaire are mainly below 0.5, and the highest and lowest dimensions are social dimension (0.435) and emotional dimension (0.359), respectively.

Table 4: Descriptive statistics and correlation of main variables.

	Dimension and total score	Learning adaptability						Mental health				
		1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	2.5
1 learning adaptability	1.1 motivation	1										
	1.2 way	0.870**	1									
	1.3 policy	0.837**	0.902**	1								
	1.4 get	0.897**	0.884**	0.911**	1							
	1.5 expand	0.849**	0.833**	0855**	0.854**	1						
	1.6 total score	0955**	0.941**	0.959**	0.962**	0.923**	1					
2 mental health	2.1 self	−0.302**	−0.244**	−0.263**	−0.266**	−0.242**	−0.280**	1				
	2.2 society	−0.0.299**	−0.240**	−0241**	−0.280**	−0.228**	−0.275**	0.830**	1			
	2.3 emotional	−0.302**	−0.259**	−0.258**	−0.286**	−0.254**	−0.289**	0.788**	0.829**	1		
	2.4 behavior	−0.300**	−0.227**	−0.251**	−0.270**	−0.215**	−0.270**	0821**	0.812*	0.798**	1	
	2.5 total score	−0324**	−0 261*	−0.273**	−0.297**	−0.253**	−0.300**	0934**	0.936**	0.915**	0.923*	1
	Average	3.203	3.291	3.289	3.370	3.122	3.256	0.435	0.359	0.398	0.407	0.400
	Deviation	0.744	0.765	0.720	0.736	0.692	0.694	0.584	0.529	0.542	0.494	0.498

*$P < 0.05$; **$P < 0.01$.

Table 5: Fitting index of learning adaptation potential profile model.

	1 kind	2 kind	3 kind	4 kind	5 kind	6 kind
AIC	4526.822	3278.074	2115.758	1618.085	1398.033	1376.636
BIC	4566.934	3342.254	2204.006	1730.401	1534.416	1537.086
AIBC	4535.203	3291.483	2134.196	1641.552	1426.529 1	410.160
Entropy		0.989	0.957	0.979	0.948	0.953
LMRT		0.000**	0.000**	0.000**	0.018*	0.101

*$P < 0.05$; **$P < 0.01$.

4.3.2. Potential Profile Analysis of Students' Learning Adaptability. Taking the scores of students in the five dimensions of learning adaptability questionnaire (learning motivation, information acquisition methods, metacognitive strategies, knowledge acquisition, and knowledge expansion) as explicit variables, the potential profile model is established. The fitting indexes of potential profile models with different categories are shown in Table 5.

It is found that the AIC, BIC, and AIBC indexes of the model decrease gradually with the increase of the number of categories. The change range of the three indicators is divided by the number of categories "4." The change range of the indicators of the first three classification models is large, and the change range of the indicators of the latter three types of models tends to be flat, indicating that with the increase of the number of model classifications, the optimization degree of the latter model gradually decreases compared with the former model. In addition, the entropy value of all category models is greater than 0.94, showing a good degree of model fitting, and the model with the number of categories from 2 to 4 is better (category 2: 0.989; category 3: 0.957; category 4: 0.979). From the perspective of LMRT, the LMRT of the models with four classification numbers from category 2 to category 5 reached a significant level (ps < 0.01). Considering the above fitting indexes and referring to the simplicity and actual situation of the model, four types of models are finally selected as our potential profile analysis model. Table 6 shows the distribution of the number of people in the four potential categories measured by the learning adaptability questionnaire and the Z scores of the corresponding categories in each dimension and total score of the learning adaptability questionnaire.

Among all categories of people, category 1 has the least number, accounting for only 4.2% of the total number, followed by category 2 (7.6%), and categories 3 and 4 account for a large proportion, accounting for 42.9% and 45.3%, respectively. Figure 6 describes the average scores of the four categories of people in each dimension and total score of the learning adaptability questionnaire.

As shown in the figure, the distribution of the four categories in each dimension and total score is relatively consistent, without too much fluctuation. The first group has the lowest score in all dimensions and total scores and is named "maladjustment group"; the second group was named "troubled group"; the score of the third year group is second only to the fourth group, which is in the middle of the population and is named "marginal adaptation group"; the score of group 4 is the highest in all dimensions and total scores, indicating the best learning adaptability. It is named "good adaptation group."

Further analysis of variance on the scores and total scores of different categories of people in each dimension of the learning adaptability questionnaire found that there were significant differences in the scores and total scores of each dimension among the four categories (ps < 0.01), which also verified the effectiveness of the four-category model of potential profile analysis from another side. In order to explore the differences in demographic information among the four groups, we counted the distribution proportion of the four groups in terms of "gender," "whether they are the only child," "ethnicity," "father's education level," and "mother's education level" (Table 7) and conducted a chi square test.

The results showed that there were significant differences in the proportion of categories in the variables of "whether they are the only child," "father's education level," and "mother's education level" (ps < 0.01), but there were no significant differences in the proportion of categories in the variables of "gender" ($P = 0.057$) and "ethnicity" ($P = 0.604$). Further analysis of the variables with significant chi square test shows that in the category proportion composition of the variable "whether it is an only child," the proportion of "only child" and "not only child" in the first group ("maladaptive group") and the fourth group ("good adaptation group") is quite different, and the proportion of "only child" is significantly higher than that of "not only child." In terms of the category proportion composition of the variable "father's education level," we found that the proportion of fathers with higher education (graduate and above) in category 1 ("maladjustment group") and category 4 ("good adaptation group") was significantly higher than that in category 2 ("troubled group") and category 3 ("marginal adaptation group"). But at the same time, it is interesting to note that there is an obvious "average" trend in the proportion of fathers' education level in the first group ("maladjustment group"), and the proportion of fathers with "primary school" education level in this group is significantly higher than that in the last three groups. Similarly, in terms of the category proportion of the variable "mother's education level," the proportion of mothers with higher education (graduate students and above) in category 1 ("maladjustment group") and category 4 ("good adaptation group") is significantly higher than that in category 2 ("troubled group") and category 3 ("marginal adaptation group"). Generally speaking, the "maladjustment group" and "good adaptation group" are more likely to be the only child, and the educational level of their parents is mostly highly educated (graduate students and above), but at the same time, compared

Table 6: Characteristic distribution of four category models.

Classification	n	%	Z score for the learning adaptation questionnaire					
			Academic motivation	Information acquisition method	Metacognitive strategy	Knowledge to obtain	Knowledge extension	Total points (TPs)
1	17	4.167	−2.749	−2.897	−3.031	−3.152	−2.931	−3.111
2	31	7.598	−1.588	−1.599	−1.428	−1.540	−1.137	−1.544
3	175	42.892	−0.301	−0.273	−0.308	−0.211	−0.293	−0.290
4	185	45.343	0.803	0.793	0.809	0.747	0.737	0.819

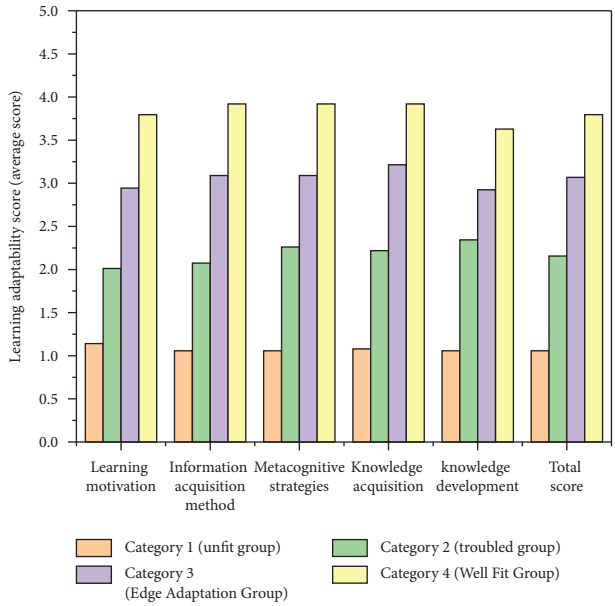

Figure 6: Distribution of scores of various groups of others on the learning adaptability questionnaire.

with the "good adaptation group," the proportion of their parents with "primary school" academic experience is also higher.

4.3.3. Differences in Mental Health of Students with Different Types of Learning Adaptation. In order to explore the differences in the scores of various dimensions and total scores of mental health among different categories of students, one-way ANOVA was carried out. The results showed that there were significant differences in the scores of all dimensions and total scores of mental health among different categories of students ($ps < 0.01$). The posttest found that there were significant differences in the scores and total scores of each dimension between group 2 ("troubled group") and the group 4 ("good adaptation group") and between group 3 ("marginal adaptation group") and group 4 ("good adaptation group") ($ps < 0.01$). At the same time, except for the self-dimension, there were significant differences in the scores and total scores of other dimensions between the first group ("maladaptive group") and the second group ("troubled group") (P social, behavioral and total scores <0.05, P emotional <0.01). In addition to self and behavior dimensions, there were also significant differences between group 2 ("troubled group") and group 3 ("marginal adaptation group") (P social <0.01, P emotional and total score <0.05 "(P social, behavioral and total scores <0.05, P emotional <0.01)" and "(P social <0.01, P emotional and total score <0.05)" for correctness." In general, the mental health level of group 2 ("troubled group") is the worst, and that of group 4 ("well adapted group") is the best. Comparing the scores of all dimensions and total scores of various groups in the learning adaptability questionnaire, it can be found that when the learning adaptability level is in the middle, the mental health status is poor, while when the learning adaptability is in the two poles (best and worst), the mental health level is better.

4.4. Discussion. This study found that there were significant differences in the scores of all dimensions and total scores of mental health among students of different potential categories. The mental health level of the troubled group was the worst, and the mental health level of the well adapted group was the best. When students are at the intermediate level of learning adaptability, their mental health is poor, while when students' learning adaptability is at the two poles (best and worst), their mental health is better. Specifically, when students encounter difficulties in learning adaptation and marginal adaptation, they will feel the greatest learning pressure, which will affect students' self-identity, social communication, and emotional stability and increase the probability of students' problem behavior. When students are extremely unfit for the information-based learning process, they will avoid and maintain themselves. On the contrary, they will have a better mental health level as well as become well adapted students. In the above, we found that the proportion of only child students who are not well educated is higher than that of their parents. This kind of family often has good material conditions and loose family atmosphere, which will also form a protective mechanism

Table 7: Proportion distribution of the number of people in four groups.

		Category 1 "unfit group" (%)	Category 2 "troubled group" (%)	Category 3 "edge adaptation group" (%)	Category 4 "well adapted group" (%)
Sex	Male	76.5	64.5	47.4	53.0
	Female	23.5	35.5	52.6	47.0
Only child	Yes	82.4	45.2	42.9	67.0
	No	7.6	54.8	57.1	67.0
Ethnicity	Han	100.0	90.3	93.1	94.1
	Minority	0	9.7	6.9	5.9
Father's level of education	Primary school	23.5	16.1	8.6	4.3
	Middle school	23.5	48.4	58.3	39.5
	Undergraduate course	35.3	32.3	29.1	35.7
	Graduate student or above	17.6	3.2	4.0	20.5
Education level of the mother	Primary school	17.6	19.4	20.6	28.6
	Middle school	41.2	45.2	44.6	36.2
	Undergraduate course	29.4	32.3	31.4	24.6
	Graduate student or above	11.8	3.2	3.4	220.5

for students' mental health, making students have good self-acceptance ability and good mental health level.

5. Conclusion and Discussion

Through the potential profile analysis, we find that under the information-based teaching environment, primary and secondary school students can be divided into four subgroups according to learning adaptation: non-adaptation group, distress group, marginal adaptation group, and good adaptation group. There are significant differences in the scores and total scores of all dimensions of learning adaptation (learning motivation, information acquisition methods, metacognitive strategies, knowledge acquisition, and knowledge expansion) among the students of the four groups, showing the gradual rise of adaptation level, which shows that this objective classification method is accurate and effective. The study also found that the proportion of only children is higher among well adapted and maladaptive students, and the educational level of their parents is mostly highly educated (graduate students and above), revealing that only children and students with highly educated parents are prone to polarization in learning adaptability. Among the four types of students, 45.3% are in the good adaptation group and 42.9% are in the marginal adaptation group, which is consistent with our observation. It shows that most students can better deal with the informatization of teaching and learning tools and will try to interact with technology to complete the learning process. These students have high learning motivation, can effectively use various learning strategies, can obtain learning resources, and can understand and use knowledge, so as to achieve better learning results. The study also found that 7.6% of students are in the troubled group and 4.2% are in the maladjustment group. Although the number of these two types of students is small, they are at a low level in all aspects of learning adaptation, which may lead to their poor learning. In practical work, teachers can use the potential profile analysis method to identify students with learning maladjustment and build a more adaptive learning environment to guide and adjust these students from the aspects of motivation, strategy, information acquisition mode, knowledge mastery, and application, so as to help them get rid of learning difficulties.

Data Availability

The labeled dataset used to support the findings of this study is available from the corresponding author upon request.

Conflicts of Interest

The author declares that there are no conflicts of interest.

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Retraction

Retracted: Effects of Physical Exercise on Physical Fitness and Mental Health of Obese Students

Journal of Environmental and Public Health

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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) Peer-review manipulation

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.

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] J. Wu, "Effects of Physical Exercise on Physical Fitness and Mental Health of Obese Students," *Journal of Environmental and Public Health*, vol. 2022, Article ID 2347205, 10 pages, 2022.

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Research Article

Effects of Physical Exercise on Physical Fitness and Mental Health of Obese Students

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With the rapid development of my country's economy, the rapid improvement of national living standards, the introduction of western fast food culture, and the modern lifestyle, the detection rate of obese patients in my country has increased year by year. Obesity has gradually become an important issue of social concern, especially among students, obesity is very common, seriously affecting the physical and mental health of students, and laying a hidden danger for the development of society. As an effective method, physical exercise has an important impact on the physical and mental health of obese students and has become an important way to solve the obesity problem. On the basis of a large number of literature research, this paper adopts a variety of research methods such as questionnaire survey, expert consultation, mathematical statistics and comparative analysis, and logical analysis. The current situation of extracurricular physical exercise has been investigated in detail, and after data analysis, it is found that obesity has a great negative impact on all aspects of college freshmen. The results of the study showed that the obese college students in Suzhou had a low level of physical health. The average scores of the "National Student Physical Health Standards" for boys and girls were 58.50 and 60.49, respectively, and the failure rates were 48.24% and 43.55%, respectively. Compared with the average level of college students in the whole country, the height, weight, and vital capacity of obese students in Suzhou are higher than the national level, while the vital capacity index is far lower than the national level, and there are significant differences in physical fitness items (obese girls 800 meters), standing long jump, sit-ups are higher than the national level, and there are significant differences; obese boys 1000 meters, sitting forward flexion are lower than the national level, there is a significant difference, while the standing long jump performance is slightly higher than the national level). In terms of mental health, the detection rate of various mild mental health problems among obese college students in Suzhou is as high as 44.56%, and the detection rate of various moderate mental health problems also reaches 9.69%. Compared with the national youth norm, obese college students are prone to psychological problems such as somatization, obsessive-compulsive symptoms, anxiety, terror, psychosis, hostility, and paranoia.

1. Introduction

Comrade Jiang Zemin pointed out in the report of the 16th National Congress of the Communist Party of China that one of the goals of building a well-off society in an all-round way is to "remarkably improve the ideological and moral quality, scientific and cultural quality and health quality of the whole nation, and form a relatively complete national education system, science and technology and cultural innovation system., national fitness and health care systems" [1]. Health quality is an important symbol of social progress and civilization, and it contains the health meanings of people's psychology, physiology, and society [2]. Put "health quality," "ideological and moral quality," "scientific and cultural quality" three qualities side by side, and "national fitness and medical and health system" with "modern national education system," "science and technology and cultural innovation system" three systems side by side, which fully shows the important position of health quality, national fitness and medical and health system in the process of building a well-off society in an all-round way [3].

A healthy body is a basic premise for young people to serve the motherland and the people, and it is the embodiment of the vigorous vitality of the Chinese nation [4].

School physical education should establish the guiding ideology of health first, strengthen physical education, enable students to master basic sports skills, and develop good habits of persevering in physical activity [5]. In recent years, the state and government departments have taken a series of measures to enhance students' physique and improve their health, but this has backfired. Students' physical health has not been significantly improved. On the contrary, students' physical fitness has a significant downward trend. The phenomenon of "high and two lows" means that the obesity rate and myopia rate of students increase, and the physiological function and physical quality of students continue to decline.

Medical experts believe that obesity is a common, obvious, and complex metabolic disorder, and it is a modern civilization disease that seriously endangers human health [6]. The occurrence has an important relationship, leading to the high incidence of various diseases and shortening human lifespan [7]. Obesity is spreading globally like an epidemic, not only in developed countries such as European countries, the United States, Australia, and other countries have high and rising obesity rates, but the situation in developing countries is even more serious [8]. For example, according to World Health Organization standards, some adult Polynesians in Samoa are obese. Therefore, obesity has become an important public health problem facing the world at present, and it is imperative to prevent and treat obesity diseases [9].

According to the "Student Physical Health Standards" report of Jiangsu Province in 2008, "the proportion of overweight and obese college students has risen from the first grade to the fourth grade" [10]. Due to the general improvement of living standards, excessive intake of calories and fat, and unreasonable food structure, coupled with the lag in the publicity and popularization of nutritional science knowledge, especially the reduction of students' extracurricular exercise time, the incidence of obesity has continued to increase.

Obesity-causing behaviors involve social, biological, psychological, and other factors. Bad living habits such as smoking, diet, and lack of physical exercise may also lead to the occurrence of obesity [11]. Correcting these risk behavioral factors can effectively reduce the incidence of obesity [12]. Therefore, through the investigation and theoretical analysis of the physical health level, mental health level, and extracurricular physical exercise behavior of obese college students in Suzhou area, this study provides the theoretical basis and reference for the study of exercise prescription for public physical education, obesity prevention, and weight loss.

2. Theoretical Research

2.1. Definition and Diagnosis of Obesity

2.1.1. Research on definition of Obesity. From a nutritional point of view, obesity is a manifestation of excess nutrition. It is a state in which the body's burning fat is stored in excess because the energy supply is greater than the energy consumption [13]. From a medical point of view, obesity refers to a weight state in which the number of adipocytes increases and the fat storage in adipocytes is excessive, the body fat increases excessively, the weight exceeds the normal value and causes serious harm to health [14]. From the definition of obesity, we can see that obesity refers to the excessive storage of body fat, which manifests as an increase in the number of fat cells or an increase in cell volume, resulting in a loss of normal ratio between adipose tissue and other tissues, causing the body to consume more energy than consume energy. A state. Figure 1 shows the proportion of overweight and obesity in different age groups [15]. As can be seen from the figure, the obese people in China are mainly middle-aged aged 45–54, followed by 55–64, while the obesity rate of students aged 18–24 is small, which is mainly related to the physical function of different age groups. Because young people love exercise, and digestion ability is strong, so not easy to cause obesity.

2.1.2. Research on Obesity Diagnosis. Due to the different measurement methods and measurement indicators, the scales for evaluating obesity are also different [16]. For example, by testing the two indicators of height and weight to determine the degree of obesity and height standard weight, by measuring the waist circumference and hip circumference of the two indicators waist-to-hip ratio method, as well as the underwater weighing method, skinfold thickness measurement method, bioelectrical impedance method, and body potassium determination by precision instruments to measure body composition. In the large sample research, due to factors such as cost, equipment, and time, methods such as BMI index, standard weight for height, and waist-to-hip ratio are usually used [17].

Among them, BMI is the abbreviation of Body Mass Index, which is translated into "body mass index," "body mass index," "obesity index," "body mass index," and other names in China. BMI index = weight (Kg) 1 height (m2) is an important indicator to reflect the relationship between adult weight and height and to judge the degree of body fat and thinness. It is an indicator closely related to the total amount of body fat and is widely used internationally. Assessment of relative body fatness. In 1997, WHO defined "BMI ≥ 30 Kg/m2" as obesity for adults (referred to as the international standard). In 1999, according to the characteristics of Asians, WHO defined "BMI ≥ 25 Kg/m2" as obesity in "Redefinition of Obesity and Its Treatment in Asia-Pacific Region" (referred to as the Asia-Pacific Standard). In 2002, the China Obesity Working Group Data Aggregation and Analysis Collaborative Group proposed that the Chinese "BMI ≥ 28 Kg/m2" is obese (referred to as the Chinese standard). In using the BMI index to assess the degree of obesity, it is easy to be affected by the ethnicity, age, influenced by factors such as gender, there are different judgment thresholds [18]. Although our country has established obesity standards for adults, it has not established obesity standards for the characteristics of college students. Figure 2 shows the indicators of obesity diagnosis.

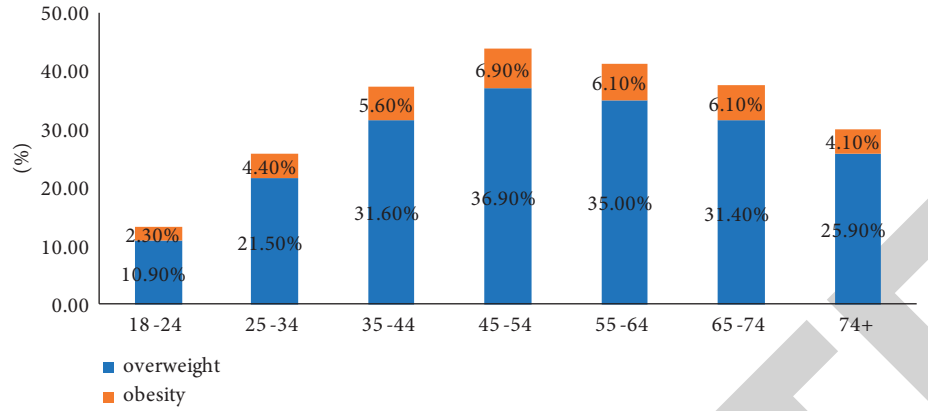

Figure 1: The proportion of overweight and obesity in different age groups.

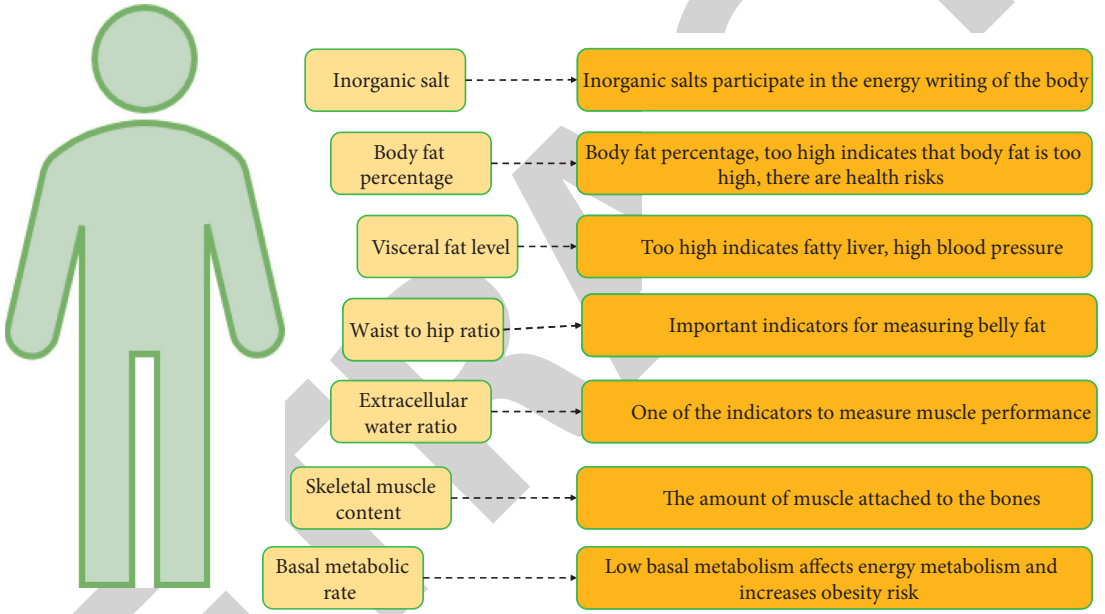

Figure 2: Obesity diagnostic indicators.

2.2. Overview of Physical Health and Mental Health

2.2.1. Physical Health. The concept of "physical health" is expressed differently in different countries and regions. My country's neighbor Japan calls it "physical fitness," Britain, the United States, and other countries call it "physical fitness," and my country calls it "physical fitness" in areas other than the mainland. My country's academic circles have a wide range of research on physical health, and the concept of physical health is also constantly developing and improving. Including clinical medicine, anthropology, physical education, and other disciplines, the concept of "physical health" has been defined. In the early 1980 s, the definition of "physical health" by the Chinese Society of Sports Science was the most influential: physical fitness and individual heredity. It is highly related to the acquisition, and based on this, it shows relatively stable performance and characteristics in terms of physiological function, morphological structure, mental health, etc.. It can be seen that the concept of "physical health" includes the performance of "psychological level." However, admittedly, in most bodies [19].

Whether abroad or at home, in schools and large-scale social group physique tests, the conditions for conducting psychological tests and adaptability are more complicated and cumbersome. Generally, physique health tests are carried out in three aspects: physical development level, physical function level, and physical quality. In my country, the physical fitness test standards and items for student groups, the "Student Physical Health Standards" (hereinafter referred to as "standards") is the most well-known to the public and society. Based on the importance and

particularity of adolescents' physical health, many countries have formulated test standards and contents for adolescents' physical health according to their national conditions. Among them, some developed countries have relatively complete systems for physical health testing of children and adolescents (students). The test items conducted in Europe and the United States are different from those in China and Japan, but they also evaluate the physical development level, physical function level, and physical fitness of children and adolescents (Table 1).

2.2.2. Mental Health. In the 1890 s, psychology was officially separated from the scope of speculative philosophy and became an independent discipline. Therefore, the definition of "mental healt" was relatively late. However, the impact of mental health on individuals has long been recognized. Mental health refers to the development of an individual's psychological state into a good state within the range that the individual does not contradict others at the level of intelligence, emotion, and body. With the continuous changes in society and the gradual deepening of human's understanding of mental health, the concept of mental health has been extended and gradually deepened accordingly. One of the most obvious manifestations is the establishment of the concept that "psychology and physiology" are inseparable. On this basis, scholars from various countries have carried out in-depth research on the relationship between physiology and psychology, and also deepened the cognition of the concept of "mental health" [20].

2.2.3. The Relationship between Mental Health and Physical Health. Physical fitness is an important indicator that affects the health of an individual throughout his life. It generally includes body composition indicators and physical fitness indicators (physical fitness and exercise quality), which are also called physical fitness in some countries and regions. Many studies have proved that physical health may be related to different psychological health indicators. The research on the influence of mental health on adolescent physical health mainly includes two aspects: (1) the relationship between mental health and physical development; (2) the relationship between mental health and adolescent physical development. Physical development refers to the development of the external form of the body, which is an important content reflecting the growth and development of children and adolescents and can also objectively reflect the nutritional status of individuals. Physical development is closely related to socioeconomic environment and geographical environment. Figure 3 shows the main problems of college students' mental health. It can be seen from the figure that the main source of college students' mental health is the academic pressure, followed by interpersonal relationship and career planning. Because the main task of students is learning, the pressure caused by the learning environment and learning has an important impact on students' mental health.

3. The Influence of Obesity on Students' Physical Health and Mental Health and the Current Situation Investigation

3.1. The Effect of Physical Exercise on the Physical Health of Obese Students. Lack of physical exercise is one of the reasons for students' obesity, and to solve the obesity problem, it is necessary to participate in physical exercise. In today's society, people pay more and more attention to health, and their enthusiasm for participating in physical exercise is also rising. Physical exercise has increasingly become a social fashion. The popularity of physical exercise is due to people's deepening understanding of the important role of physical exercise in promoting physical health. For obese students, the impact of physical exercise on physical health is also very important.

3.1.1. Physical Exercise Is Conducive to the Normal Development of Students. The problem of obesity means that students are not developing normally. Physical exercise can promote the normal development of students and make them healthier. The human body is composed of different systems, including the motor system, respiratory system, nervous system, blood circulation system, and digestive system. Physical exercise involves different forms of movement of various parts of the body and plays an important role in improving the functions of these systems of students. Physical exercise promotes the normal physical development of obese students by improving the function of various motor systems.

3.1.2. Physical Exercise Is Conducive to the Enhancement of Physical Fitness of Obese Students. Physical quality includes strength, speed, endurance, agility, and flexibility. For obese students, there are deficiencies in these aspects, so the physical quality is poor. Physical exercise includes a lot of content and involves a lot of sports. Through the training of different sports, the strength, speed, endurance, sensitivity, flexibility, and other qualities of obese students will be greatly improved, and the overall physical fitness will be enhanced.

3.2. The Effect of Physical Exercise on the Mental Health of Obese Students. Mental health is an important part of health. For students, mental health is very important. It is not only related to the study of scientific and cultural knowledge, but also affects their normal life and growth. Physical exercise plays a huge role in the mental health of obese students.

3.2.1. Physical Exercise can Regulate the Emotions of Obese Students. Obese students not only face huge psychological pressure in life and study, but also have various psychological problems caused by obesity. It is normal to have bad emotions. Figure 4 shows students' body anxiety due to obesity. By participating in physical exercise, obese students can temporarily forget this kind of pressure and bad psychology in the process of sports, which is beneficial to relieve pressure and eliminate tension. In sports, obese students

Table 1: Main test methods of physical health of American and European students.

Test indicators	Eurofit	FitnessGram	Alpha-fit
Body composition	Height, weight, body fat ratio 20 m round trip	Body, weight, BMI, body fat percentage	Height, weight, BMI, waist circumference
Cardiorespiratory endurance	Treadmill exercise test, grip strength	Progressive cardiovascular endurance running	20 m round trip
Muscle strength and endurance	Standing long jump, hanging arms, crunches	Mile run, crunch, cantilever suspension push ups Improved pull-ups torso up	Grip, standing long jump
Athletic ability	Run back and forth Slab undulation		4×10 m round trip
Coordination	Sitting forward bend	Single leg sitting forward bend	
Balance	Flamingo balance test	Shoulder stretch	

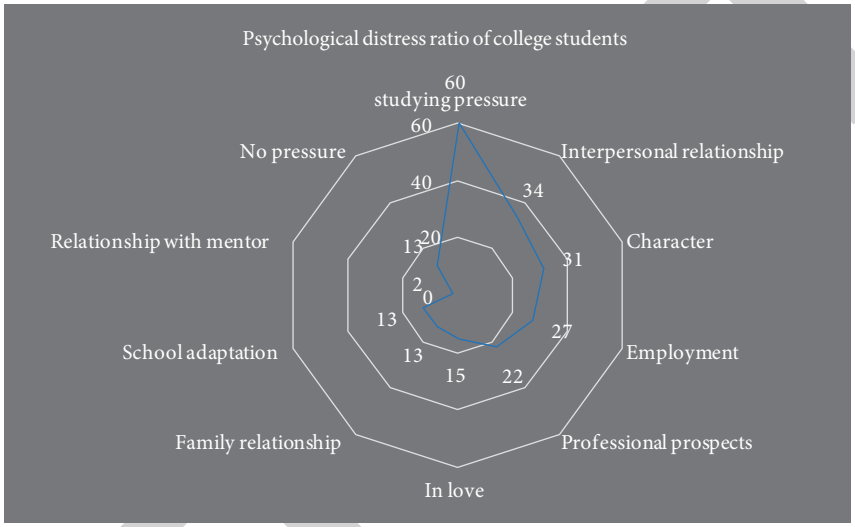

Figure 3: The main problems of college students' mental health.

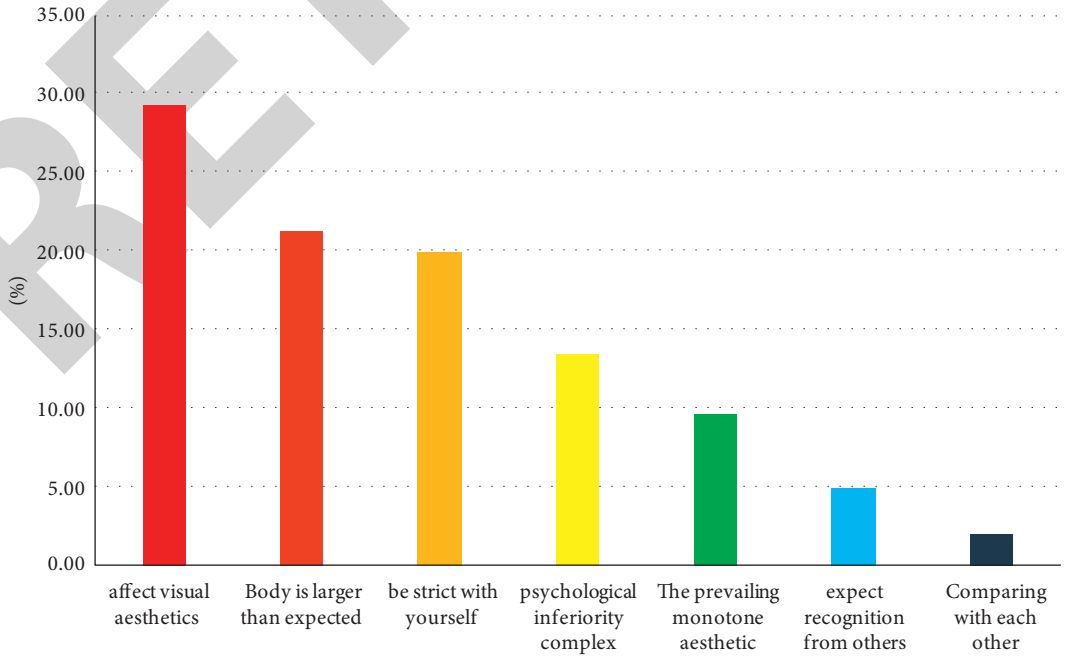

Figure 4: Students' body anxiety due to obesity.

maintain positive emotions, optimistic and stable emotions, and in the long run, various psychological problems will be solved.

3.2.2. Physical Exercise can Give Obese Students a Good Emotional Experience. Obese students will inevitably have a bad emotional experience in study and life, and physical exercise provides them with ways and means to vent. By participating in physical exercise and completing different sports tasks, obese students can gain a sense of achievement and psychological satisfaction. This kind of good emotional experience brought by physical exercise is helpful for obese students to actively face study and life and enhance their self-confidence.

3.2.3. Physical Exercise can Cultivate the Strong Will of Obese Students. For obese students to participate in physical exercise, they need to master certain techniques. Learning some techniques is not easy and requires to overcome many difficulties. In the process of physical exercise, they will also face a variety of harsh environments and strong opponents, which are full of challenges. Obese students may need to challenge the limits of their bodies. In the process of constantly overcoming difficulties, completing sports tasks, and obtaining good sports performance, obese students will gain hardships and stand hard work, brave struggle, perseverance mental strength, so as to cultivate its strong will.

3.3. Current Situation Survey. In this paper, the physical health, mental health, and extracurricular physical exercise behaviors of the four ordinary colleges and universities in Suzhou area: Soochow University, Suzhou Institute of Science and Technology, Suzhou Arts and Crafts Vocational and Technical College, and Suzhou Agricultural Vocational and Technical College, for the research object.

The research methods include literature research method, expert interview method, and questionnaire survey method. According to the research needs of this paper, read books on pedagogy, physical fitness, school sports, psychology, sports sociology, sports management, sports economics, sports statistics, sports culture, and other aspects to prepare the theoretical basis for this research.

According to the needs of the research, two sets of questionnaires, "College Students' Extracurricular Physical Exercise Behavior Questionnaire" and "Symptom Self-rating Scale (SCL-90)" were designed. "College Students' Extracurricular Physical Exercise Behavior Questionnaire" is designed for the research needs of obese college students' exercise prescription. The Self-rating Symptom Scale (SCL-90) is a commonly used survey tool for measuring mental health at home and abroad.

In total, 600 questionnaires were distributed, 600 were recovered, the recovery rate was 100%, of which 588 were valid questionnaires (340 for boys and 248 for girls), and the recovery rate was 98%, thus ensuring the reliability of the first-hand information.

4. Analysis of Survey Results and Research on Countermeasures

4.1. Physical Health Status of Obese College Students in Suzhou. The comparison results of physical fitness test scores and national college students are shown in Table 2. From the statistical results in Table 2, the lung capacity of obese college students in Suzhou is much higher than the national index, but the lung capacity index is far lower than the national index, and there is a highly significant difference. For adults, the heavier the weight, the greater the lung capacity, but the lung capacity is easily affected by factors such as age, gender, height, weight, and chest circumference. Because the weight of obese students is relatively large, the lung capacity index is low.

4.2. Mental Health and Physical Exercise Status of Obese College Students in Suzhou. Table 3 shows the detection rate of mental health problems among obese college students in Suzhou. The statistical results from Table 3 show that: (1) 262 people have psychological factor scores ≥2, and the detection rate of various mild psychological problems is 44.56%. Among them, the detection rate of boys reached 44.71%, and the proportion of mild obsessive-compulsive symptoms, interpersonal sensitivity, hostility, and other symptom factors accounted for more than 20%; while the detection rate of girls reached 44.35%, mild obsessive-compulsive symptoms, interpersonal sensitivity, and other symptoms. Anxiety symptom factor ranked the top three. (2) There were 57 people whose psychological factor score was >3, and the detection rate of various moderate mental health problems reached 9.69%.

In the comparison of the scores of the obese college students' symptom self-rating scale with the national youth norm, see Table 4. Among the obese college students' symptom factors, only the average score of interpersonal relationship and depression is lower than the national youth norm, while the other seven factors were higher than the national youth norm, and there were highly significant differences in the symptom factors of somatization, obsessive-compulsive symptoms, anxiety, and psychosis, and significant differences in the symptoms of hostility, paranoia, and phobia. This shows that obese college students generally have different types and degrees of psychological problems. Compared with people of the same age, they are more likely to have psychological problems such as somatization, obsessive-compulsive symptoms, anxiety, terror, psychosis, hostility, and paranoia.

In order to find out the difference in the mental health status of obese male and female freshmen, we used gender as an independent variable to test the significance of the difference. From the statistical results in Table 5, the total score of boys is higher than that of girls, and there is a significant difference. Among the nine factors, boys only have lower scores on depression and anxiety than girls, while the other seven factors have higher scores than girls. There are highly significant differences in somatization and obsessive-

Table 2: The statistical table of comparison between the physical health test scores of obese college students in Suzhou area and the national college students.

Gender	Boy		Girl	
Project	Sample (340)	National	Sample (248)	National
Height	174.79 ± 5.80	171.02 ± 6.06	163.20 ± 4.7	159.48 ± 5.44
Weight	81.10 ± 8.84	61.24 ± 9.09	70.10 ± 5.57	51.28 ± 6.57
Lung capacity	4302.51 ± 676.08	3727.56 ± 729.26	3025.32 ± 450.87	2445.28 ± 562.54
Spirometry index	53.44 ± 8.88	61.47 ± 11.76	43.35 ± 6.894	48.04 ± 10.92
Standing long jump	230.33 ± 16.99	228.84 ± 19.67	170.92 ± 14.71	168.96 ± 17.94
Sitting forward bend	11.47 ± 4.81	12.46 ± 7.23		
Sit-ups			34.12 ± 7.88	31.43 ± 9.19
1000 meters	259.69 ± 29.05	256.29 ± 32.05		
800 meters			243.81 ± 21.15	254.53 ± 30.13

Table 3: Detection rate of mental health problems in obese college students in Suzhou area.

	Factor score		Total	Factor score		Total
	Boy	Girl		Boy	Gril	
Overall	152	110	262	35	22	57
Somatization	50	22	72	4	2	6
Obsessive-compulsive symptoms	112	80	192	8	7	15
Interpersonal relationship	84	64	148	14	7	21
Depression	44	34	78	8	2	10
Anxiety	40	44	84	6	2	8
Hostility	78	32	110	4	13	17
Fear	34	24	58	8	0	8
Paranoid	56	34	90	12	4	16

Table 4: Comparison of the scores of the obese college students' symptom self-rating scale with the national youth norm and the national college student norm.

	Tested college students	National youth norm	National university student norm	T1	T2
Somatization	1.47	1.34	1.57	5.359	−4.757
Obsessive-compulsive symptoms	1.84	1.69	2.03	4.902	−7.618
Interpersonal relationship	1.72	1.76	1.92	−1.202	−7.610
Depression	1.54	1.57	1.91	−1.047	−16.598
Anxiety	1.51	1.42	1.68	3.733	−7.844
Hostility	1.57	1.50	1.73	2.342	−6.252
Fear	1.39	1.33	1.54	2.367	−6.870
Paranoid	1.58	1.52	1.84	1.977	−10.547
Psychotic	1.49	1.36	1.61	5.518	−6.020

Table 5: Comparative statistics of psychological symptoms characteristics of obese college students of different genders.

	Boy	Girl	T
Overall	142.68	138.10	1.976
Somatization	1.52	1.39	3.704
Obsessive-compulsive symptoms	1.89	1.78	2.638
Interpersonal relationship	1.75	1.69	1.289
Depression	1.54	1.55	-0.270
Anxiety	1.50	1.52	-0.541
Hostility	1.61	1.52	2.056
Fear	1.40	1.37	0.808
Paranoid	1.62	1.52	2.370
Psychotic	1.51	1.47	1.219

compulsive symptoms, and in hostility and paranoid symptoms. There are significant differences.

Figure 5 shows the mental subhealth status of obese students in different regions. From the statistical results in Figure 5, the average score of obese college students in rural areas is the highest, followed by obese college students in counties, and obese college students in big cities have the lowest score. This is mainly related to the level of education and family economic conditions. When college students from rural areas are facing economic and academic pressure, the phenomenon of "hardship is hidden in psychology," and they receive relatively little support from their families, which makes the psychological pressure difficult. To timely and effective evacuation, it is easy to form psychological barriers or diseases.

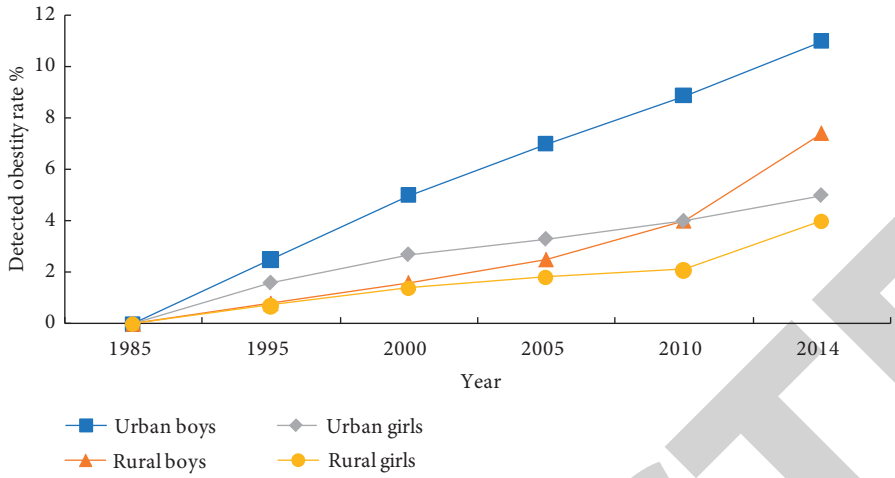

Figure 5: Psychological subhealth status of obese students in different regions.

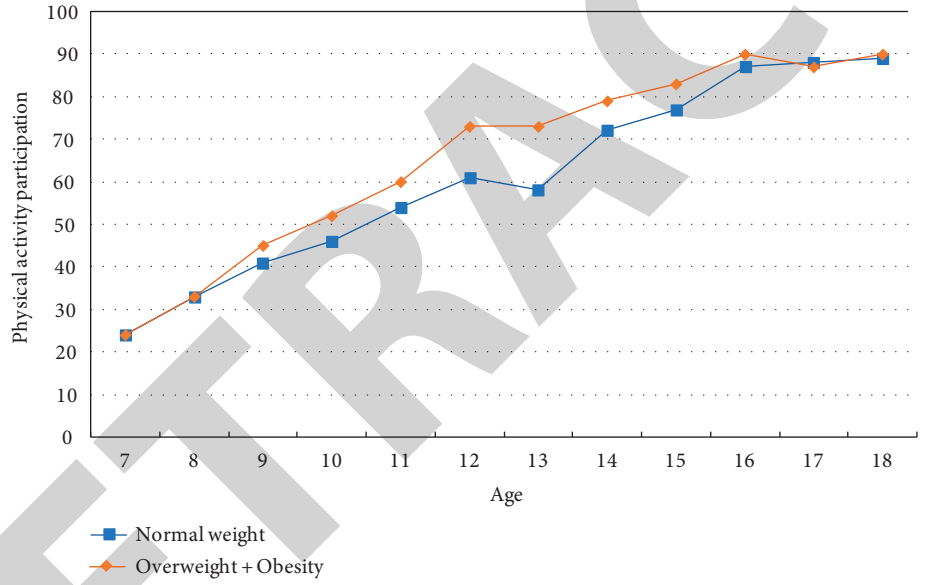

Figure 6: Physical exercise participation of students of different ages and physiques.

A survey was conducted on students of different ages and physiques, mainly to investigate their willingness to participate in physical exercise. The results are shown in Figure 6. It can be seen from the figure that the older the students are, the more overweight and obese students are more willing to participate in physical exercise, which also shows that the students are more and more aware of the harm of obesity to the body and the importance of physical exercise.

Figure 7 shows the abnormal mental health and subhealth results of obese college students. It can be seen from the figure that although the students have been studying and living on the university campus for a year, there are still a large number of students who feel unable or difficult to adapt to the new environment, and often have disputes due to lack of communication when dealing with interpersonal relationships. It leads to emotional depression and loneliness. This situation causes students to have psychological problems such as somatization, obsessive-compulsive symptoms, anxiety, terror, psychosis, hostility, and paranoia, thus affecting their physical and mental health. This is mainly because, under the influence of exam-oriented education for a long time, schools and parents, often under the command of the baton of the college entrance examination, attach great importance to the intellectual education of students, while ignoring the cultivation of students' healthy personality.

4.3. Recommendations for Physical Exercise for Obese Students. Schools should create more physical exercise conditions for young people as much as possible, and teachers should use positive evaluations to encourage young people to do physical exercise in physical education activities. At the same time, respect their individual differences and explore the sports' potential of each youth. In addition,

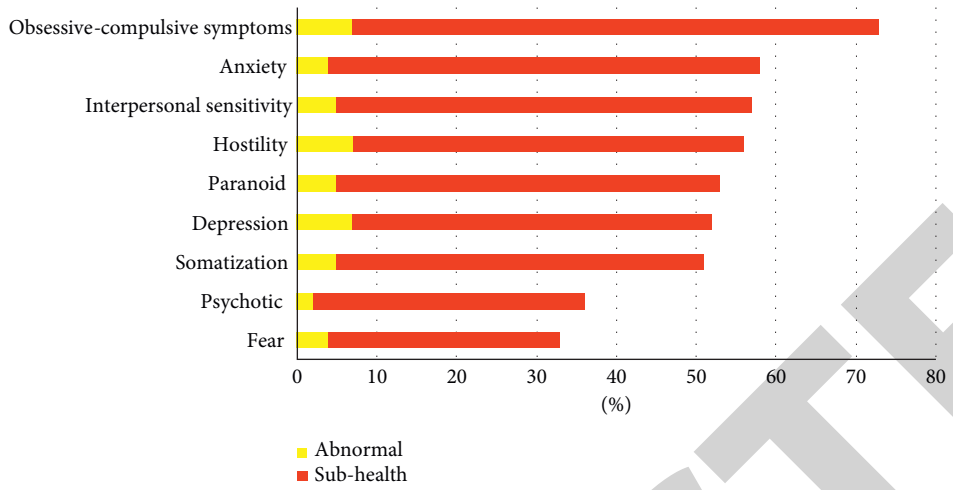

Figure 7: Abnormal mental health and subhealth outcomes of obese college students.

give them more opportunities to show themselves, and use their strengths to the greatest extent possible in competitions or other sports activities, so as to enhance their sports confidence and interest in physical exercise.

Parents should provide their children with as much physical activity support as possible to enhance their self-esteem and self-efficacy. Parents often promote and educate about exercise. You can use verbal encouragement or behavior to participate in physical exercise with children, and actively create a good family atmosphere for physical exercise. At the same time, it can create more sports conditions for children, let them experience the fun brought by physical exercise, help them overcome their own negative personality qualities, and reduce the sedentary time of watching mobile phones and TV.

Individual students should make reasonable use of social resources. At the same time, strengthen self-regulation, fully accept and use social support, establish a good interpersonal relationship with others, actively cultivate awareness of exercise, and actively participate in physical exercise.

5. Conclusion

The immaturity of psychological development and weak physical health caused by obesity make students prone to mental subhealth problems under the multiple pressures of rapid social development, which in turn restricts the healthy development of young people's physique. This paper investigates the mental health and physical health problems caused by obesity among college students in Suzhou, as well as students' participation in physical exercise. The main conclusions are as follows: (1) The physical health level of obese college students in Suzhou is relatively low, and the physical health test of boys is average. The score was 58.50, and the failure rate reached 48.24%. The average score for girls was 60.49, and the failure rate reached 43.55%. (2) The detection rate of various mild psychological problems among obese college students in Suzhou area reached 44.56% (44.71% of boys and 44.35% of girls), and the detection rate of various moderate mental health problems reached 9.69% (including 44.71% of boys and 44.35% of girls). In total, 10.29% for boys and 8.87% for girls). (3) More than 80% of the obese college students in Suzhou have a positive attitude toward sports, and a few show dislikes. Boys are significantly more motivated to participate in physical exercise than girls.

Data Availability

The labeled data set used to support the findings of this study is available from the author upon request.

Conflicts of Interest

The author declares that there are no conflicts of interest.

Acknowledgments

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Retraction

Retracted: The Application of Mental Health Teaching Method and Special Teaching Method in College Chinese Teaching under the Network Environment

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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) Peer-review manipulation

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.

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.

References

[1] W. Zhang, "The Application of Mental Health Teaching Method and Special Teaching Method in College Chinese Teaching under the Network Environment," *Journal of Environmental and Public Health*, vol. 2022, Article ID 8371421, 10 pages, 2022.

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Research Article

The Application of Mental Health Teaching Method and Special Teaching Method in College Chinese Teaching under the Network Environment

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In order to improve the quality of College Chinese teaching, innovate the teaching mode, enrich the teaching content, and fundamentally improve the application and practice ability of college students so as to promote the reform of College Chinese teaching, this article briefly describes the research background of this subject, introduces the special teaching mode under the network environment, and briefly describes the basic content and practice of the special teaching method. This article mainly explores the construction of a network environment based on blockchain technology, including the construction of a blockchain framework and the application of the blockchain system. This article briefly analyzes the functional requirements of the network environment, explores the application practice of the mental health teaching method and the special subject teaching method based on the network environment, and finally studies the creation and implementation of the network environment conditions of the special subject teaching method. By creating a high-quality network environment, it provides a technical guarantee for the application and realization of special teaching method, effectively meets the needs of College Chinese teaching, and cultivates students' interest. Under the joint action of the above algorithms, the BTP congestion control system is verified by the laboratory simulation environment: it has more than 40% random packet loss resistance, the bandwidth is still available as low as 300 kbps, and the network jitter is 1200 ms. It has been proved that the mental health teaching method, the special subject teaching method, and the network environment have remarkable application effects in College Chinese teaching and are worthy of wide application and promotion.

1. Introduction

As the rapid development of modern computer network technology, the university provides new opportunities for Chinese education and training, integrates high-quality education, provides new training methods for students, attracts students' attention, and encourages students' interest in learning [1]. Based on the network environment, the introduction of specialized Chinese language instruction in colleges has improved classroom quality, improved classroom relationships, engaged with students' education, promoted the development of good Chinese classes, and developed fine arts skills. Therefore, relevant colleges and universities must change the concept of Chinese teaching and continuously accumulate practical experience of special subject teaching methods in College Chinese teaching. Based on the Internet + environment, the educational informatization teaching goal has been realized and the blockchain platform education mode built. At present, based on the network environment, blockchain is widely used in public network services to promote the normal operation of the Internet [2]. For the network system, it is safe, reliable, and low in cost. The DNS system based on the blockchain ensures the accuracy of query results and provides stable and efficient network services. It is applied in university education and teaching, optimizes the curriculum, realizes the sharing of high-quality educational resources, and improves teaching efficiency. At the same time, with the support of the application of blockchain technology, a university student learning information database has been established to record

the performance of students in school, including academic achievements, awards, and transcripts, so as to provide a guarantee for the formulation of university talent training plan and reference basis for university employment units [3]. Employers can obtain university talent information through the blockchain platform and select the best candidates according to their employment standards. Based on the network environment constructed by blockchain technology, the infrastructure system is established. The system application layer, perception layer, and control layer all play different functions, guaranteeing the implementation of a special teaching method. The consensus algorithm and network equipment in the blockchain system are complete, creating a good network environment. The sequence approval algorithm in the time window is called the "approval mechanism" and usually includes pow, POS, dpos, pool, and pbft. There are some differences between the advantages and disadvantages of each consensus mechanism. For example, the use of a blockchain makes it difficult for a pow-approved mechanism to obtain the same power for its own security; Although the software code has been changed in the network agreement, it is not possible to access the network without permission, which greatly improves the security of the network environment [4]. The blockchain infrastructure system is shown in Figure 1.

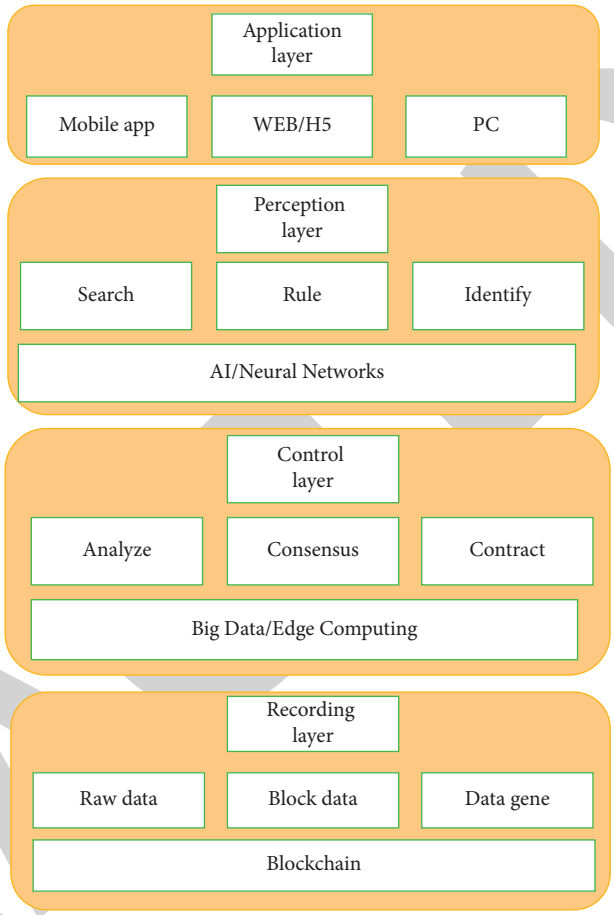

Figure 1: Blockchain infrastructure.

2. Introduction of Special Subject Teaching Mode under Network Environment

2.1. Special Teaching and Network Environment. The special subject teaching method adopts the form of special subject for systematic teaching, pays attention to the combination of theory and practice, trains students' creative thinking, and improves students' Chinese self-cultivation and humanistic quality by cultivating students' ability to observe, analyze, and explore problems [5]. Thematic training is an open course that combines the principles of teaching and teaching and learning aids, including heuristic learning, teaching procedures, instructional questions, and teaching various, which guarantee the application and use of thematic instructions. It integrates a variety of teaching and learning methods. At the same time, the thematic curriculum honors the student management system in the classroom, focuses on developing students' knowledge of information, and allows students to express and learn model instruction. Scientists believe that specific teaching comes from environmental connections. In the area of networked technology, the advent of microclass technology, multimedia technology, and other forms of modern education is a necessity for learning [6]. The procedure for applying a special method is shown in Figure 2.

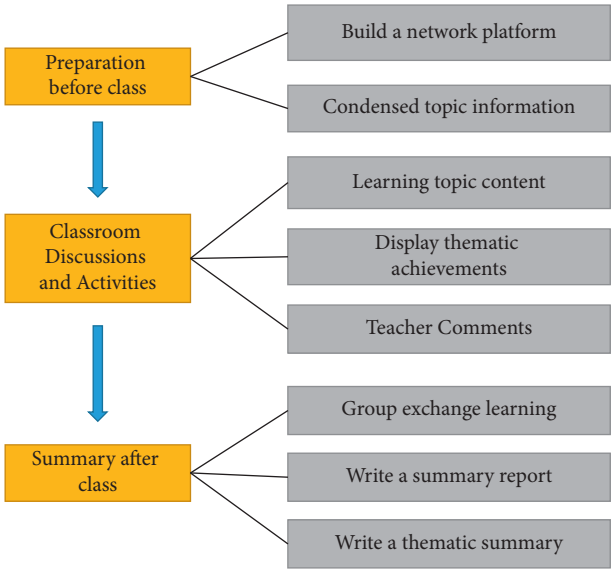

Figure 2: Implementation flowchart of special subject teaching method under Network Environment.

Blockchain integrates cryptography, networking technology, consensus algorithm, smart contract, and other technologies. With the continuous maturity and development of blockchain technology, various industries in society pay extensive attention to the practical application scenarios of this technology and try to apply it in college education and teaching to give full play to the advantages of blockchain technology [7]. The network environment created based on the blockchain consensus algorithm ensures the accuracy of data recording nodes and can provide data to all nodes in the network to ensure data information sharing. The average time of the block generated based on bitcoin is 10 min.

Therefore, in order to maintain the current speed and adjust the target value in combination with the current computing power of the whole network, the relationship between the difficulty of all nodes in the block and the target value is as follows:

$$C = \frac{2^{224}}{D}. \tag{1}$$

At this time, the number of hashes to be calculated for finding a new block is as follows:

$$\frac{2^{256}}{C} = \frac{2^{22}}{D}. \tag{2}$$

Then it is concluded that the relationship between difficulty, computational power technology, and time is as follows:

$$P = 2^{22} \cdot \frac{D}{T}. \tag{3}$$

If an organization has enough computing power, it can launch an attack against the bitcoin network. When the attacker has enough computing power, they can calculate the latest block first so as to master the longest chain [8]. The PoW consensus algorithm in the blockchain system mentioned above can specifically calculate the attacker's computing power and the probability of attack success and then obtain the relationship between the malicious node's attack success rate and computing power as follows:

$$P = 1 - \sum_{k}^{n} = 0 \frac{\lambda_e^k - \lambda}{k} \left[1 - \left(\frac{q}{p} \right)^{n-k} \right], \tag{4}$$

where q is the proportion of the computing power mastered by the malicious node in the total computing power, $P = 1$-Q is the proportion of the computing power mastered by the honest node in the total computing power, n is the number of blocks until the message is confirmed, and $\lambda = nq/p$ is the relationship between the attacker's computing power and the attack success probability under different values of n. It can be seen that when the attackers have the same computing power, more blocks will be added to a block [9]. Therefore, the lower the probability of the block being attacked so as to ensure the data and information security of each node. Based on this, building a network environment based on blockchain technology is safe and reliable, which can create a network environment with higher safety factors for the development of special teaching methods. In order to ensure the reliable application of the network environment, the VRF consensus algorithm (verifiable random function) in the blockchain system is combined to further increase the network communication nodes, improve the performance of the blockchain system, ensure the stability of the network environment, and provide support for the implementation of the special teaching method. VRF consensus algorithm can use RSA or elliptic curve to construct random numbers, which can ensure the accuracy of the generated random numbers. The specific verification process is as follows:

When generating the key, A produces the public-private key pair (sk, pk) locally; when calculating value, A takes the private key sk and message m as inputs, and the calculation results are as follows:

Value = VPFvat (sk,m);

Verify value: B verifies the received value and proof. The verified value can be calculated by proof:

Value = $\mathrm{VPF}_{\mathrm{proof2value}}$ (proof):

Verify proof: B verifies the received proof, which can be calculated by A's private keys SK and M:

Ture/False = $\mathrm{VPF}_{\mathrm{value}}$ (proof,sk,m)

2.2. The Mental Health Teaching Method. Action orientation is a kind of teaching method; it can also be said to be a kind of teaching guiding ideology and teaching plan design. This teaching method pays attention to the subjectivity, initiative, and creativity of students' learning while also paying attention to the interaction in the learning process. The interaction shapes students' personalities. We try to use the action-oriented teaching method in the mental health course for college students to build a course teaching system based on the task. In the interaction of the learning process, students can improve their training of mental health ability, improve psychological function, cultivate good psychological quality, and uild a healthy personality.

2.2.1. Understanding the Basic Situation of Students' Mental Health. Understanding the basic situation of students' mental health is the basis for designing curriculum teaching. In order to better use the "action-oriented teaching method," we need to understand the psychological characteristics of students of all ages, understand the basic situation of their native families, use psychological measurement methods to understand the students' mental health, and use questionnaires to understand the students' experiences in the process of growing up. Various psychological problems can be clearly the teaching objectives of the course.

2.2.2. Improving the Quality of Students' Mental Health as the Teaching Goal. When designing the teaching objectives of the course, we should focus on the learning process of students and pay attention to the relationship between knowledge and skills. The teaching goals of this course are to enhance self-consciousness of mental healthcare and psychological crisis prevention, master and apply mental health knowledge, cultivate the self-cognitive ability, interpersonal communication ability, and self-regulation ability, effectively improve psychological quality, and promote students' all-round development.

2.2.3. Setting the Course Content According to the Teaching Objectives. According to the requirements of action-oriented teaching, improving the psychological quality is the basis for the selection of course teaching content. The teaching content of college students' mental health course is to understand the psychological development characteristics and abnormal performance of college students at the

knowledge level and master the basic knowledge of self-adjustment; at the skill level, they can master self-exploration skills, psychological adjustment skills, and psychological development skills, such as environmental adaptation skills, stress management skills, communication skills, problem-solving skills, self-management skills, and interpersonal skills; at the level of self-awareness, they can correctly understand themselves, adapt to the society, and find a living state that suits them.

2.2.4. Carefully Designing the Teaching Situation According to the Teaching Content. Select one or more action-oriented teaching methods to implement classroom teaching. In the design of teaching situations, attention should be paid to students' inner emotional experiences and the establishment of attitudes and values. For the teaching content of professional skills such as self-cognition, self-management, self-regulation, and interpersonal communication, theory and practice should be combined. For example, when teaching self-cognition analysis, in addition to letting students understand self-analysis methods, teachers also need to let students know themselves according to self-analysis methods. In the beginning, write no less than 20 sentences about me on paper, and then summarize according to the physical self, psychological self, and social self, so as to achieve the effect of self-cognition.

2.3. Multimedia Technology. Based on the development and progress of the new generation of information technology, multimedia technology is widely used in special teaching to realize the innovation of education and teaching mode in colleges and universities. Compared with traditional education methods, it has high technical content, attaches importance to students' visual impact and visual communication effect, enhances students' learning experience, and fundamentally stimulates students' interest in learning [10]. With the support of the application of multimedia technology, the transformation of abstract learning content is realized, which becomes easier to understand, reduces the difficulty of students' understanding, and ensures the effect of classroom teaching. The application of multimedia technology in special subject teaching can achieve the teaching goal of both pictures and texts, display vivid teaching scenes, and dynamically demonstrate specific conceptual knowledge, which is highly intuitive. Therefore, it is widely used in special subject teaching. Multimedia technology refers to computer application technology that deals with graphics, images, video, audio, and animation in computer programs [11]. It is now a medium for storing data such as ROM, RAM, tape, magnetic disk, and optical disk. The main information is CD-ROM, VCD, web page, and so on. Multimedia is a recent update. The development of multimedia technology has transformed the field of computing, transforming computers from offices and specialized laboratories into devices of the information community. It is widely used in production management and school education. For special education, it covers e-learning plans, video tutorials, interactive simulation techniques, and network multimedia techniques [12]. Multimedia video technology is focused on computer operations by converting analog video images into digital signals, analog-to-digital conversion, and color space so that the computer can display and make video signals. There are now two types of models: Y: U: V4: 1 : 1 and Y: U: V4: 2 : 2. The first is the simple approval form for early products. Y: u: v4: 2 : 2 format doubles the standard chrome signal and enhances the color, sharpness, and stability of digital video to provide multimedia video. See Figure 3 for the multimedia technology framework [13].

3. Functional Requirements Analysis of Network Environment

For the special teaching method based on the network environment, we need to focus on the stability of the application of network technology, ensure that the technology is handled properly, including audio processing and image processing, and ensure that the display interface of special teaching is clear. At the same time, students' sense of learning experience should be considered. In the process of creating the network environment, we give full play to the technical advantages of blockchain and use the consensus algorithm to calculate the parameter values of each module so as to reduce the difficulty of operation and maintenance of the computer network system in the later stage as much as possible [14]. We fully rely on the software equipment and hardware equipment in the blockchain system to create a network environment, ensure the feasibility of various educational technology applications, effectively provide technical support for special teaching, better create a good teaching atmosphere, enhance students' learning experience in the network environment, and improve students' learning enthusiasm.

4. Application Practice of Special Subject Teaching Method Based on Network Environment

4.1. Realization of Special Teaching. Professional teaching based on the network environment mainly relies on the blockchain technology carrier to create the network environment and then create a complete blockchain system to provide a guarantee for the implementation of the special teaching method [15]. With the application support of the blockchain system, the application purpose of multimedia technology in special teaching is realized, and the expected teaching effect is achieved. Multimedia technology in short video content creation platform, combined with audio technology, has accumulated rich technical experience, is widely used in major live broadcasting platforms, and achieved remarkable results. Based on the complex and diverse terminal distribution and network environment in the world, we gradually expand the core technology business, create a diversified technology scene, and further optimize the audio technology. The core capabilities of the overall solution of audio and video technology include the following: (a) it has a super large service scale [16]. The

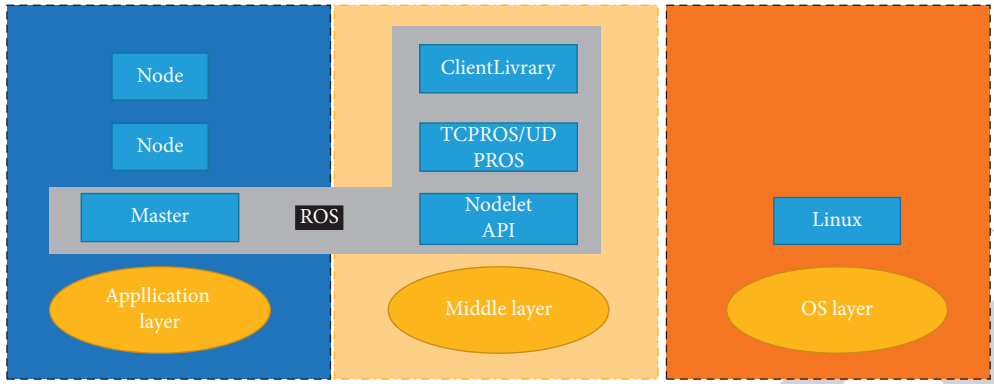

Figure 3: Multimedia technology framework.

duration of audio and video services in a single month is more than 10000000000 minutes, one of the best in the world. (b) It supports a large number of users online at the same time. It provides real-time video interactive services for tens of millions of people online at the same time. (c) It has a high-quality service capability. It provides industry-leading high-quality audio and video services in QoE/QoS in the global complex network environment. (d) Its performance is costly. Under the same service conditions, the average cost is only 50% of the general level in the industry. Next, the analysis will be carried out from the technical level, in order to provide technical support for the application of the thematic teaching method [17].

4.2. Application of Audio Technology

4.2.1. Self-Coding Technology. Based on the requirements of multimedia teaching video image quality and sound quality, and based on the network environment, we actively study a lower bit rate and faster network transmission rate to ensure the definition and resolution of image quality. Compared with the previous generation encoder x264, HEVC open source encoder can save 40+% bit rate and greatly improve the basic video experience under the same coding speed and image quality [18]. The coding performance of x265 does not give full play to the compression extreme of the HEVC standard. Compared with the very slow file of x265, it can save a 15% bit rate on average under the condition of 5x acceleration. The compressibility of the x265 encoder can be seen in Table 1.

The performance of the x265 encoder is evaluated under the test conditions of MSU encoder competition, which meets the standard of MSU encoder competition. In the specific test, it includes different resolutions and content complexity, covering a variety of video scenes. Among them, Likee is the relevant video on the service side, JCTVC is the official test set of HM, and MSU is the complex mixed test set provided by Moscow University [19]. Moreover, 265 has great advantages in the coding effect of various test videos; the evaluation and test results are shown in Figure 4.

4.2.2. Adaptive Coding Technology. Traditional transcoding services use fixed coding parameters for transcoding, which cannot adaptively select the best coding parameters according to

Table 1: Compression performance of x265 encoder.

PSNR@CRF		256 slow	
Vs	PSNR	SSEIM	Speed
VP9GOOD	−35.56%	−44.42%	1
X264veryslow	−40.54%	−46.63%	2.5
Svt-av1 preset8	−34.57%	−29.98%	1.3
Average	−37%	−40.34%	1.6

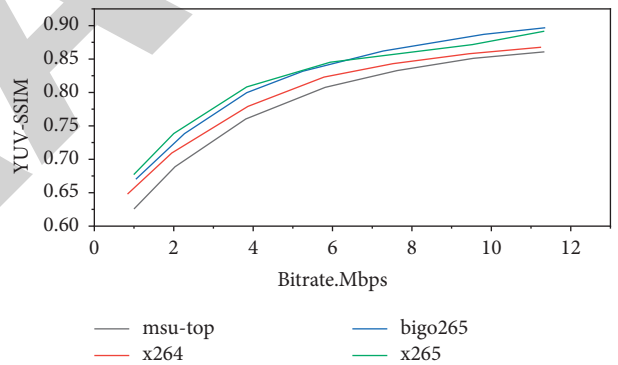

Figure 4: Performance evaluation curve of x265 encoder.

the complexity of video content, resulting in a waste of code rate of simple videos and insufficient quality of the complex video. X265 encoder *e* is committed to automatically identifying the complexity of video content so as to select a reasonable coding strategy to achieve the best balance between quality and bit rate, save bit rate, and balance image quality globally [20]. The coding prediction accuracy within the range of the target vmaf score [−2, +2] can reach 93%+. On the 3000 test sets covering multiple resolutions and frame rates, the quality variance is significantly improved, the low-quality cases are reduced, and the average bit rate is saved by 40% +. See Table 2.

CAE content adaptive transcoding strategy is based on x265 encoder, which integrates content analysis (migration learning, coding feature analysis, etc.), AI coding parameter prediction, fine-grained rate control (frame level code control, ROI code control), and other technologies to achieve the purpose of stable quality and code rate saving. The content analysis adopts coding features and transfer learning features. Transfer learning adopts the classical

Table 2: Performance of adaptive coding technology.

Coding resolution	Vmaf mean	vmaf_std	Average bitrate	Rate saving
720P	Fixed crf	95.683188	2.435618	−41.83%
	CAE	90.032785	1.547586	
540P	Fixed crf	95.749435	2.195823	−41.90%
	CAE	89.945044	1.26428	
360P	Fixed crf	96.122129	1.900628	−45.16%
	CAE	89.969049	0.941953	

image classification network, uses the trained image classification network for CV application, and extracts the FC layer before classification as the input feature of AI coding prediction. In order to accelerate the prediction speed and meet the real-time needs of business, AI coding prediction adopts a simple shallow neural network [21].

4.2.3. Network Transmission Congestion Control Technology. If you imagine the Internet as a highway system, every Internet path is like a highway. When too much data enters the network, it will be blocked due to the insufficient transportation capacity of some nodes in the highway system. This kind of data congestion is usually called link congestion. Congestion control has been studied for more than 30 years, and many congestion control algorithms have emerged, including some representative algorithms; see Figure 5.

In order to improve the definition of video pictures, a complete congestion control scheme has been accumulated—the BTP congestion control system. Aiming at the characteristics of live broadcast jamming, sensitivity to the definition, and relatively insensitive to delay, the average zero jamming rate is more than 94%, 720p accounts for more than 30%, and the average delay time is less than 2S [22]. In order to solve the problem of the random packet loss scenario, a random packet loss filter is preinstalled, which can accurately filter the random packet loss under the speed limit network mixed with various random packet loss distributions (such as 10% random packet loss subject to Gaussian distribution + 800 kbps speed limit) and retain the congestion loss as the congestion control signal. High delay in small bandwidth scenario: for small bandwidth networks below 600 kbps, its typical feature is that the routing buffer queue is long. When packet loss congestion is detected, the waiting time of data accumulated in the buffer can be more than 10s, which seriously affects the live broadcast experience. At the same time, the auxiliary algorithm slops are introduced, which is a delay-based congestion control algorithm that can accurately infer the delay type and network state to implement the corresponding congestion control output [23]. Under the joint action of the above algorithms, the BTP congestion control system is verified by the laboratory simulation environment: it has more than 40% random packet loss resistance, the bandwidth is still available as low as 300 kbps, and the network jitter is 1200 ms. The scenario architecture of the BTP congestion control system is shown in Figure 6.

4.2.4. Adaptive Rate Playback Control Technology. According to the summary of viewing code rate, transcoding and distribution on demand in the cloud can achieve the goal of saving transcoding computing resources and network transmission resources (Table 3). Adaptive rate control of live/video on demand in live and video on demand scenarios, an adaptive rate algorithm based on MPC model prediction, is developed and implemented. By analyzing user characteristics and preferences, predicting download bandwidth information and cache length change state, the selection resolution/code rate problem is modeled as a dynamic optimization problem. The optimization goal is the user's viewing experience index QoE (quality of experience). It not only improves users' viewing satisfaction but also saves the bandwidth consumption of the server.

4.2.5. Access Routing Strategy Optimization Technology. Based on the complex and diverse network environment, strengthening the construction of network infrastructure can improve the service level of audio technology, accumulate technical experience, create specific audio scenes, comprehensively ensure the quality of network access and the effect of audio communication, and then provide high-quality network technical conditions for the development of special teaching method [24]. The access network is optimized to further improve the audio playback effect, as shown in Figure 7.

4.2.6. Audio and Video Transmission Technology. It is very important for audio and video products to build an industrial audio and video transmission technology with high availability, high versatility, and high-quality assurance, and the optimization focus of transmission technology varies greatly in different business scenarios. In addition, the network characteristics of different countries and regions are very different; there are also great differences in routing, link quality, and charging methods across countries and continents. Different network types have their own behavior patterns and pipeline characteristics, which need to adapt to different transmission control strategies. Users in the same region have great differences in network access types and methods, and users have different preferences for network traffic costs. Therefore, in the process of formulating the transmission strategy, it is necessary to comprehensively consider and optimize the multidimensional situation, such as the focus of the business scenario, the network characteristics of different countries and regions, and the user's experience quality and network payment preference. In the face of the above key challenges of audio and video transmission, BIGO audio and video transmission technology has built a complete basic system of transmission technology through continuous evolution from the beginning of design to the actual implementation, including the following four key technical directions; see Figure 8.

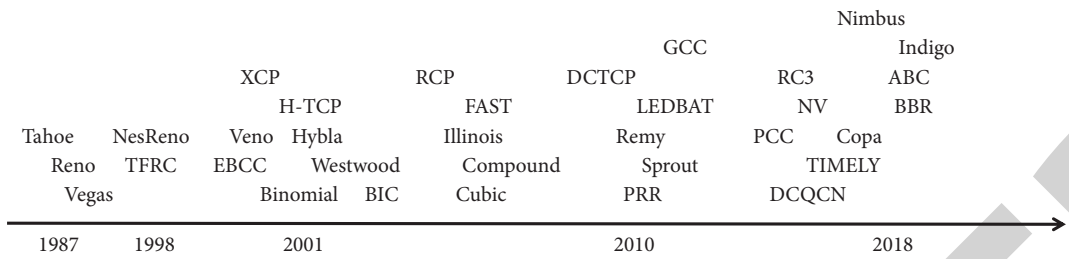

Figure 5: Congestion control algorithm.

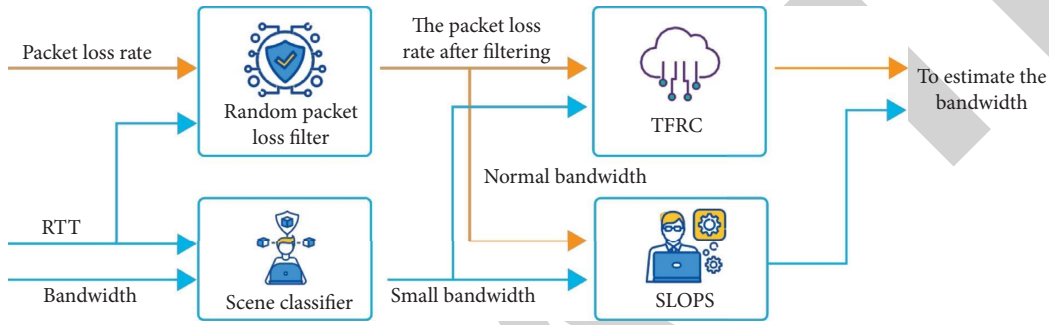

Figure 6: BTP congestion control system architecture.

Table 3: Optimization benefits of adaptive rate algorithm.

Index	Per capita W	Retained	Per capita playback time	Average flow	Caton rate	Second output rate
Experience group	+0.78%	+0.32%	+0.71%	−11.0%	−10.13%	+0.5%

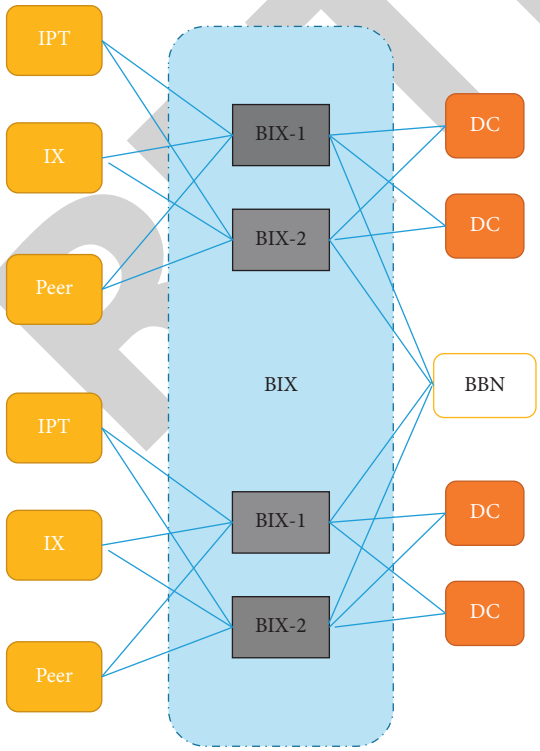

Figure 7: Structure diagram of the optimized access network.

4.3. Creation and Realization of Network Environment Conditions of Special Subject Teaching Method

4.3.1. Construction of E-Learning Platform. We build a network platform based on the blockchain system, carry out overall construction and planning, set up a teacher login system, and create a course website and course module. In the course website, we enter relevant information, including the description of the course website, applicable courses, and website name; then select the course template and add relevant application functions in combination with the implementation needs of the special teaching method; in addition, set up external network display website, delete the website and other setting modes. We make full use of the distributed advantages of blockchain to collect access user data and divide the information according to departments, teachers, visits, and course categories. When students log in to the system, they can be guided to quickly enter the corresponding course website.

4.3.2. Blockchain System Implementation. A blockchain system is a distributed database system. Compared with traditional databases, it has the characteristics of atomicity, consistency, isolation, and persistence. The first is to obtain the packaging right of block data through competition,

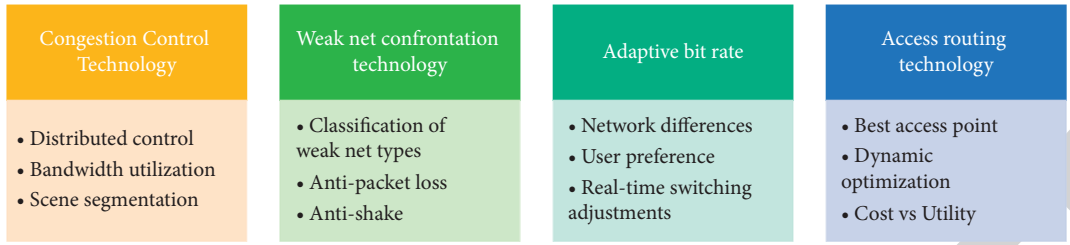

Figure 8: Technical direction diagram.

package the transaction data in the memory pool (the transaction data sent in the network but not confirmed into the block belongs to the transaction data to be confirmed) into the block, and broadcast it to other nodes. The second is to accept the digital currency reward of the system for packaging behavior so that the system can complete the issuance of new currency through this reward mechanism. Among the front-end tools, the most obvious is the wallet tool, which provides users with the ability to manage their account address and balance. The browser is used to view the data in the blockchain network, such as the latest block height, the number of transactions in the memory pool, and the network processing capacity per unit time. Both the PRC client and the command line interface are used to access the functions of the node. At this time, the core node is equivalent to a server, which provides a function call interface through the PRC service.

There are three main types of popular information. Stable information: every reader can continuously read the results of past writing, for example, multitopic information, in a shared environment. All functions can be returned from time to time; the system can be used at any time. Network distribution tolerance, reliability: in the case of a network partition (such as disconnecting the network), a separate system will operate normally. The most important feature of the blockchain is the use of computational and storage divisions to reduce or even eliminate intermediate objects or regulatory agencies. In a blockchain, the rights and responsibilities of a node are equal, and the data blocks in the system are jointly protected by the nodes with the maintenance function of the whole system. Once the data are checked and added to the blockchain, they will be stored permanently. Data exchange at an incorrect point: therefore, the security and reliability of blockchain data are very high. The structure of the blockchain database is shown in Figure 9.

The blockchain system is distributed, while big data focuses on large-scale and quantifiable data; the blockchain system is anonymous and private, while big data cares about personalization; The blockchain system is secure and the information is relatively independent, while big data cares about the integration and analysis of information. The blockchain system itself is a database, and what we call big data refers to the in-depth analysis and mining of data; that is, data analysis and mining need to be built on the blockchain system to give full play to the value of data. The function of the consensus module in the blockchain database is to make all data nodes in the system consistent. If a new

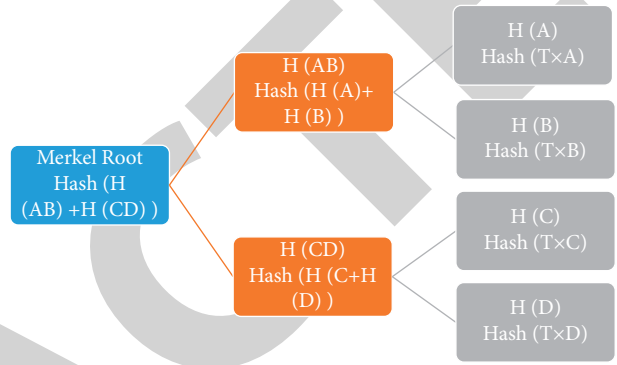

Figure 9: Blockchain database framework.

transaction is added to a node's blockchain, all other nodes in the database will add the same transaction to their respective blockchains. The consensus algorithm is reached in Ethereum and bitcoin blockchain through proof of work (PoW) or proof of entitlement (POS), while IBM hyperledger and other blockchain systems that want to improve efficiency adopt PBFT (practical Byzantine fault tolerance) protocol. The efficiency of the latter will be much higher, but the data transmitted by the network will increase exponentially according to the increase in the number of nodes.

With the support of the blockchain consensus algorithm, the combination of VRF and POS algorithm is realized. All new nodes in the network must execute PoW first. The existing nodes in the network verify the pow of the new node and authorize it to join the consensus algorithm VBFT designed by the network blockchain project ontology, which combines VRF, POS, and BFT algorithms. VRF randomly selects consensus nodes among many candidate nodes and determines the arrangement order of consensus nodes, which can reduce the impact of malicious bifurcation on the blockchain system and ensure the fairness and randomness of the algorithm. Combining POS and VRF, nodes can become candidate nodes in the form of a token pledge, then select some nodes through the noninteractive VRF algorithm to form a consensus committee, and then these nodes execute a pbft consensus algorithm to be responsible for the rapid verification of transactions. Algorand can ensure the normal operation of the system when the nodes are honest nodes. Each participating node generates a pair of public-private key pairs (sk_i, pk_i) and calculates a random number m through the previous round of block information. The information for calculating the random number comes from the chain, and all nodes will calculate the same random

number. The node uses its own private key and the calculated random number M. The calculation results and proof are as follows:

$$\text{hash} = VRF_{\text{val}}(\text{sk}m), \tag{5}$$

$$\pi = VRE(skm. \tag{6}$$

The node substitutes the calculated result hash according to the above formula to obtain: $d = \text{hash}/2^{\text{hashlen}}$, where hashlen is the number of bits of the calculated result hash. Where $P = t/\text{w}$ is the probability in the word lottery, t is the number of consensus nodes expected to be selected, and $W = \sum w_i$ is the total weight of all consensus nodes after pledging tokens:

$$B = (k; w; p) = (k_w)P^k(1-p)^{w-k}. \tag{7}$$

In constructor $f(J) = \sum_0^j B(k; w; p)$, each formula node tries to calculate from 0 to W, when $d < \text{hash}$, π, $j > 0$. After other nodes accept the lottery result, they can confirm the correctness of the VRF calculation through the formula and query the weight w_i of the node according to the parameters provided by the node and the chain to verify the correctness of the lottery:

$$\pi = VRF_{\text{proof}}(pk, m), \tag{8}$$

$$\text{Hash} = VRF_{\text{proof2vale}}(\pi). \tag{9}$$

5. Conclusion

To sum up, this article has completed the research and discussion of this topic. The special teaching method and the mental health teaching method based on the network environment have been technically guaranteed. Through the technical support of blockchain, it has created a network environment with high communication demand, effectively optimized the multimedia technology teaching mode in special teaching and the mental health teaching method, and provided a guarantee for the realization of modern educational technology. At the same time, with the support of audio technology, the teaching experience is enhanced, and through in-depth exploration of the connotation and essence of audio technology, the application of technical algorithms is understood so as to provide support for the realization of audio technology. In the future, facing the complex and diverse network environment, we still need to give further play to the advantages of new generation information technology such as big data technology, cloud computing technology, and Internet of things technology, innovate the university education and teaching environment, and create environmental conditions for the realization of diversified teaching methods and teaching modes. In short, the reform direction of College Chinese teaching is clear. In the network environment, it is urgent to further study the application of network technology in teaching, realize the deep integration with the special teaching method, and improve the education quality of colleges and universities to the greatest extent.

Data Availability

The labeled dataset used to support the findings of this study is available from the corresponding author upon request.

Conflicts of Interest

The author declares that there are no conflicts of interest.

Acknowledgments

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Retraction

Retracted: The Problems of "Mental Health Trend" in the Ideological and Political Management of College Students Under the Network Environment

Journal of Environmental and Public Health

Received 26 September 2023; Accepted 26 September 2023; Published 27 September 2023

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) Peer-review manipulation

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.

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] W. Quan and Q. Xie, "The Problems of "Mental Health Trend" in the Ideological and Political Management of College Students Under the Network Environment," *Journal of Environmental and Public Health*, vol. 2022, Article ID 4968807, 12 pages, 2022.

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Research Article

The Problems of "Mental Health Trend" in the Ideological and Political Management of College Students Under the Network Environment

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In order to solve the problem that the ideological and political work mechanism in colleges and universities is relatively backward, which has no significant effect on ensuring the healthy and vigorous development of socialist universities with Chinese characteristics and promoting the all-round growth of students, this research focuses on the innovative countermeasures of ideological and political work in colleges and universities under the network environment from the perspective of ideological and political education. Therefore, the current situation and problems of ideological and political education management in colleges and universities are understood through questionnaire survey and interview. It is learned that 24.09% of students believe that the level of ideological and political education activities in colleges and universities is declining, 32.12% of students do not like the traditional way of ideological and political education, 33.94% of students have a general evaluation of the current ideological and political education management, and 58.03% of students believe that the way of ideological and political education is relatively single. Network psychological education for college students is a kind of educational behavior aimed at the psychological change process of college students in the Internet environment, and it conducts psychological education for college students in terms of cognition, emotion, will, ethics, personality shaping, interpersonal communication, and so on. Based on the above problems, combined with the requirements of ideological and political management and the needs of students, this article puts forward countermeasures from three aspects: management mechanism innovation, team improvement, and adaptation ways. Therefore, the management of ideological and political education in the network era is not a thing overnight, and must be adhered to for a long time. Only by constantly exploring, strengthening research, absorbing the strengths of others, innovating and developing, the ideological and political education management in the network era will increasingly show its strong effectiveness and play a more and more important role in practical work. The lack of network morality and network norms not only affects the ideological and political education but also affects the ideological and moral elements of higher vocational students' quality and physical and mental health.

1. Introduction

The study of thought and politics has always been an integral part of college students' study of politics, thought, and culture and religion. The thinking and politics of colleges and universities directly affect the physical and mental development and culture of college students [1]. With the rapid development of network technology, the network not only promotes the transmission and exchange of information but also brings new opportunities and challenges to the ideological and political education of higher vocational colleges. On the one hand, the richness of network resources has brought convenience to higher vocational students, expanded the vision of higher vocational students, and enriched the content and form of ideological and political education. With the advancement of time, especially the

advancement of the Internet, the Internet has brought many conveniences to the college students today. At the same time, education and training in colleges and universities also began to use network technology widely, as shown in Figure 1. After the leap of network technology, ideological and political scientific and ideological and political control began to face many problems about brand, concept, and environment. On the other hand, the openness, virtuality of the network, and hidden nature are not conducive to the filtering and control of bad information. Due to many reasons, higher vocational students are easy to indulge in the Internet and the virtual world after contacting the Internet, with weak moral and legal awareness, lack of social responsibility, and other problems, which affect the ideological and moral quality and physical and mental health of higher vocational students. Therefore, in the network environment, the strategy and management of colleges and universities should ensure the improvement of time and resources, to meet the needs of the times and innovative work strategies, organically blending existing and regulatory policies with network technology, and search to improve the ideas in the network environment [2].

2. Literature Review

Based on the research on the integration of ideological and political activities in colleges and universities, the theoretical basis is an important topic of current research. Jiang et al. and others believe that the research on the coordination mechanism of ideological and political work in colleges and universities supported by the coordination theory is the focus of the coordination and integration theory of ideological and political work in colleges and universities [3]. Novaes et al. take the idea of coeducation as a starting point and believe that coeducation in colleges and universities should support board decisions and improve knowledge in the curriculum, integration of goals, and integration of all subsystems [4]. From the perspective of integration, Wang et al. proposed that higher education and politics should be well run, procedures, teaching content, methods, and the whole process should be integrated. The second is to promote the research on ideological and political integration in colleges and universities with a positive way of thinking [5]. Starting with the concept of justice, Faraji et al. plan to improve justice and the integration of ideas and politics in colleges and universities by creating a vision, fostering collaboration, and strategic planning. Finally, ecological discovery promotes the integration of ideological and political mechanisms in colleges and universities [6]. Boudi et al. called for adherence to the principles of justice, sustainability, self-organization, governance, and improving and enhancing the horizontal integration theory at the level of ideological and vertical integration of horizontal and horizontal ecological openings [7]. Hong et al. said that in the context of the current age data, cooperation, and collaborative research on the study of ideology and politics in colleges and universities include: first, theoretical and cultural studies; history of working in a college with age data [8]. Yuan pointed out that, to form an efficient linkage mechanism of "mainstream public opinion" and "folk public opinion," it is necessary to build an emergency response mechanism of "online and offline" self-media public opinion linkage [9]. The good results of mental health education content need not only be the efforts of educators, but also the active participation of educational subjects and the joint promotion of society and family. This needs to pay attention to the interaction with the subject, as well as the correlation with society and the family in the content of students' ideological and political education. The second is the study of the theoretical and political integration of colleges and universities from the perspective of new developments in information technology. Shokri and Kebriaei are committed to research to create a platform for distance learning and exchange of ideas, and provide long-term opportunities for improving quality training by participating in the accuracy of instruction. They pointed out that the ideology and politics in colleges and universities should establish a cohesiveness of information and promote the integration of religious and political development education [10]. The third is the research and development of ideology and politics in colleges and universities in the New Era: on the one hand, we must be actively and constantly involved in ideological and political work in colleges and universities. Complete all planning and design of strategic and political initiatives, and implement all decisions and procedures in a clear manner. On the other hand, we need to be careful to gradually increase, grasp the work law, establish a long-term mechanism, improve the system, create a work power system, establish and improve the work emergency system, and form a complete work guarantee mechanism. Sanjay et al. explored and proposed to innovate the leadership mechanism, assessment and incentive mechanism, dynamic mechanism, operation mechanism, restriction mechanism, information feedback mechanism, environment mechanism, goal mechanism, work team construction, and guarantee mechanism in the ideological and political work mechanism of colleges and universities [11]. First of all, we should establish a static and innovative thinking mechanism, which should break through the rigid and dynamic thinking mechanism of people in colleges and universities; explore the ways of mechanism design from four mechanisms: discipline, curriculum management, teaching coordination, and multiple evaluation coordination [12].

3. Current Status and Issues of College Students' Ideological and Political Education Management

3.1. Research Tools. This research was carried out by the leaders of the ideological and political disciplines and studies of the vocational school and the students of the vocational school. Among them, the Department of Mental and Political Administration includes the Deputy Director of Cultural and Political Administration, students of the Department of Education, educators and theologians of the Department of Thought and Political Management. Students are in grades one, two, and three of vocational schools. With

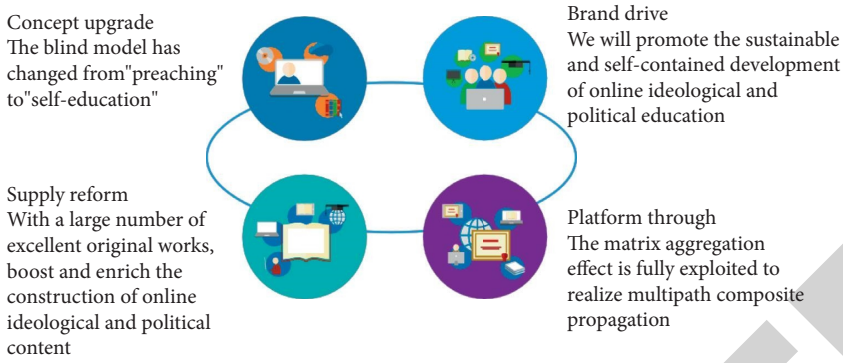

Figure 1: Ideological and political work under the network environment.

the development of information network technology, ideological and political education and mental health education should adapt to the changing situation and occupy the network position. They must have a strong modern education concept, with profound and broad psychological education professional knowledge and skills; familiar computer operation technology and network technology with outstanding guidance ability, strong control ability and new teaching skills, full of creative spirit; and have a strong sense of responsibility and dedication.

A total of 100 questionnaires on administration and school administration were distributed in this study, and 97 valid questionnaires were returned, with a return value of 97%; a total of 300 questionnaires on culture were distributed, and 274 valid questionnaires were returned, with a return rate of 91.33% [13].

3.2. Presentation of Survey Results of Ideological and Political Education Managers

3.2.1. Basic Information of Ideological and Political Education Managers. Of the thought-provoking and political leaders involved in the study, 43 were male, accounting for 44%; 54 are female, accounting for 56%. Because of the uniqueness of educational management and governance, women are highly valued in the workplace, and women are involved in politics and culture and management slightly higher than men (see Figure 2).

According to the age sample, there were 15 respondents aged 20–30, accounting for 15.46% of all respondents; 32 people aged 31–40, accounting for 32.99% of the total population in the study; the largest number of people aged 41–50, a total of 38 people, 39.18% of the study population. The lowest of the 51-year-old population was 12, accounting for 12.37% of all studies [14]. It can be seen that the age group 31–50 has the highest ideological and political education, accounting for 72.16%. This is closely related to the school's experience requirements and selection system for ideological and political education managers (see Figure 3). Ideological and political educators should combine the content, methods, and approaches of ideological and political education, and constantly study new methods and countermeasures according to the age, personality, behavior, and psychology of higher vocational students. This requires

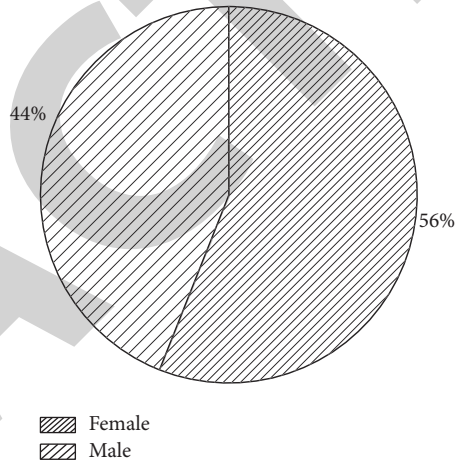

Figure 2: Gender ratio of ideological and political education management workers.

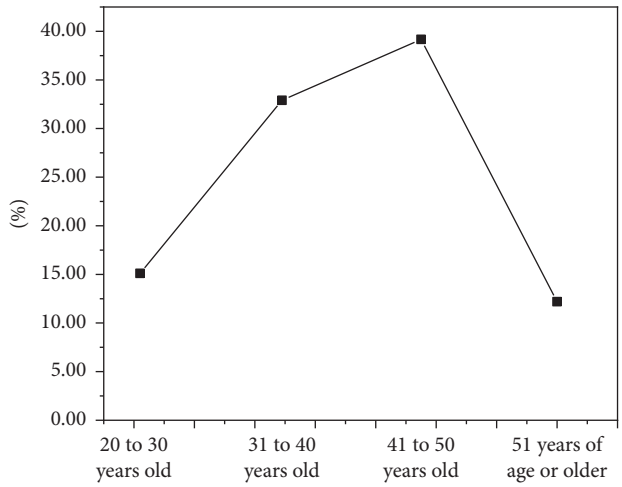

Figure 3: Age distribution of Ideological and political education management workers.

educators to have innovative educational concepts, have ideological and political quality, scientific and cultural quality, network information quality, psychological quality, and innovative quality.

By grade level, graduates were the largest, accounting for 67 people, accounting for 69.07% of the total. It is worth noting that in recent years, the number of graduates with a bachelor's degree or higher engaged in ideological and political education has increased, accounting for 27.84% of the total numbers, showing all the advantages of the ideological and political control team (see Figure 4).

In terms of the structure of the name of professionals, the name of senior staff of secondary schools is the majority of the staff of administrative culture and politics, accounting for 42.27% of all researchers, and the average teacher is modest, accounting for money for 36.08% of the total number of surveyors. Secondary school teachers are the lowest, accounting for only 21.65% of all respondents, which is based on the age gradient of educational and political leaders, and have a good relationship with the skills required by the culture [15] (see Figure 5). The emphasis on scientific and cultural quality is emphasized because the network accelerates the dissemination of new knowledge. Only by constantly learning science and culture, can we engage in ideological and political education more effectively.

From the perspective of the familiarity of ideological and political education managers with the network, most ideological and political education managers are familiar with the use of the network, but 11.34% of them still cannot use the network, which is consistent with the age gradient of ideological and political education managers. The vast majority of ideological and political education managers over the age of 51 cannot use the network (see Figure 6).

3.3. Ideological and Political Education Management Organization and Management Concept. From a cultural point of view, 80% of the schools have set up special teams to hold local culture and traditions [16]. Among schools with administrators, 24.05% of religious and political leaders rated their district's participation as "excellent," compared with only 5.56% of schools without boards; in "poor." In two dimensions, the number of ideological and political education institutions in private schools is very large [17]. Therefore, it is not difficult to see the cooperation of grass-roots institutions in schools with leading groups is significantly better than that in schools without leading groups (see Table 1). From the point of view of quality improvement and governance, in the survey of colleges at the same level, 50.63% of the staff is governed by ideological and political beliefs, that "division of labor is a fact and a special meaning," while schools without leading groups account for only 11.11% of this purpose choice. It can be seen that schools with leading groups are also significantly better than schools without leading groups [18] (see Table 1). Carry out the research of college students' network psychological problems, carry out network psychological disorder consultation, prevent and treat students' psychological problems. Often carry out a targeted psychological investigation, and timely grasp the ideological dynamics, psychological conditions, the establishment of college students' network mental health records. Establish mental health associations, build mental health websites, establish online mental health electronic books, establish online addiction students.

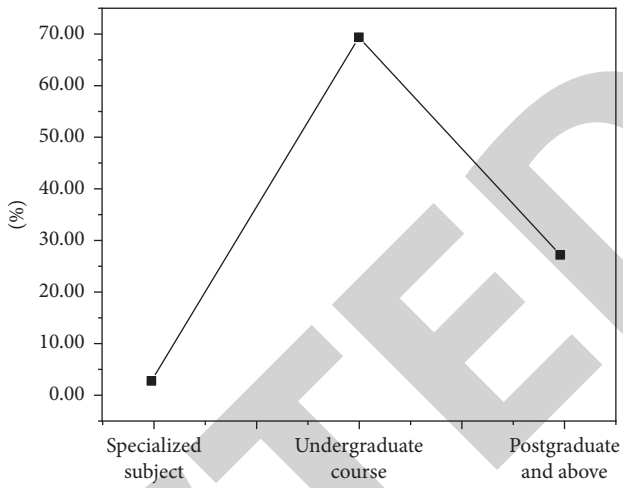

Figure 4: Educational background distribution of ideological and political education management workers.

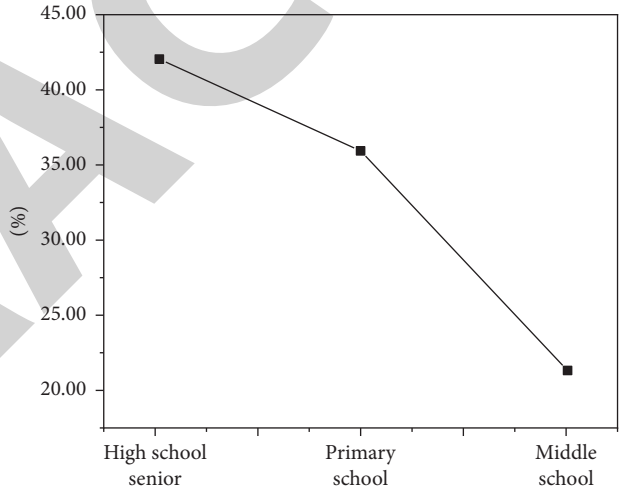

Figure 5: Title distribution of ideological and political education managers.

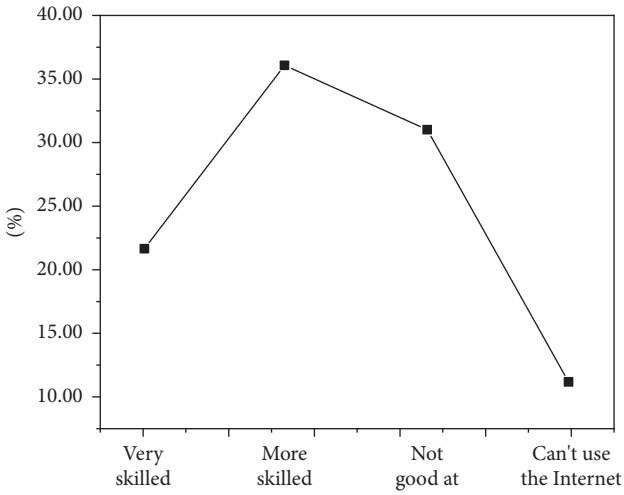

Figure 6: Familiarity of ideological and political education managers with the network.

Table 1: List of cooperation between the leading group of ideological and political education management and grass-roots institutions.

Leading group	Cooperation of grass-roots institutions		Construction of ideological and political education management system	
Have 79	Very good	24.05%	Clear division of labor, specific content, and individual responsibility	50.63%
	Preferably	24.05%	There is a written system, but the division of labor is not clear enough	26.58%
	Commonly	35.44%		
	Poor	8.86%	There is no written system	22.78%
	Very bad	7.59%		
Nothing 18	Very good	11.11%	Clear division of labor, specific content, and individual responsibility	11.11%
	Preferably	5.56%	There is a written system, but the division of labor is not clear enough	27.78%
	Commonly	27.78%		
	Poor	44.44%	There is no written system	61.11%
	Very bad	11.11%		

From the perspective of the theoretical guarantee of ideological and political education management, there is special personnel to study the characteristics and laws of moral education in the network era. Only 20.62% of the schools with theoretical guarantee while 60.82% of the ideological and political education management workers said that their schools have no special personnel to engage in theoretical research, but have similar discussion or discussion activities. About 18.56% of ideological and political education management workers said that they had never had any theoretical guarantee activities [19]. It can be seen that the management of ideological and political education in vocational schools is relatively weak in terms of the theoretical guarantee, and there is an urgent need to assign special personnel to carry out theoretical research (see Figure 7). In order to overcome students' dependence on the Internet, we should organize various forms and novel campus cultural activities, such as humanities and art, campus culture, science and technology, sports, and sports extracurricular activities, make them separated from the virtual world, bravely face the reality, improve their ability to adapt to the environment, actively participate in social practice, and cultivate a healthy and mature psychological quality.

From the point of view of administrative and political administration, only 20.62% of educational and political leaders said their schools have set aside special funds for education and politics, special to the administrative and political administration, which can ensure that special funds are used for a specific purpose. While 41.24% of ideological and political education managers said although their schools had set up special working funds, they were often misappropriated; 38.14% of ideological and political education managers said that their schools had no special work funds at all (see Figure 8). While strengthening education, institutional constraints, hardware fortification, and standardizing ourselves, we should also actively use the characteristics of the network to carry out technical guidance. For example, we should set up network spokesmen, post on hot issues to guide the trend of network public opinion, carry out network comments, strictly manage website content, and strengthen the management of the post bar and QQ group.

By examining the benefits of administrative and political change to the rules of the Internet age, by context, 56.7% of religious and political leaders owner deem it inappropriate.

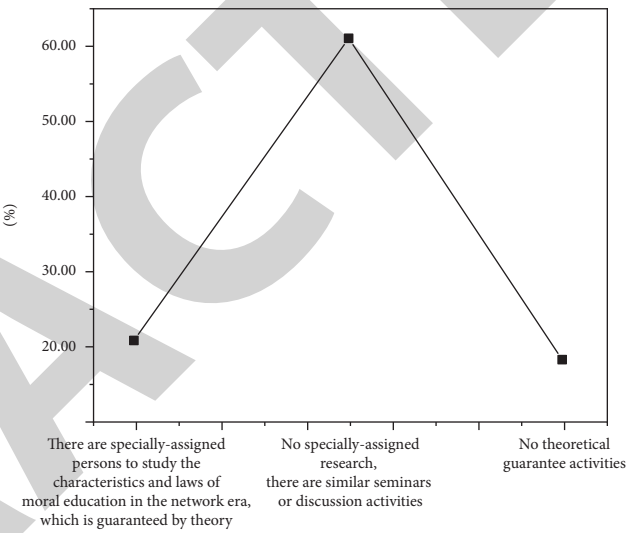

Figure 7: Theoretical guarantee of ideological and political education management.

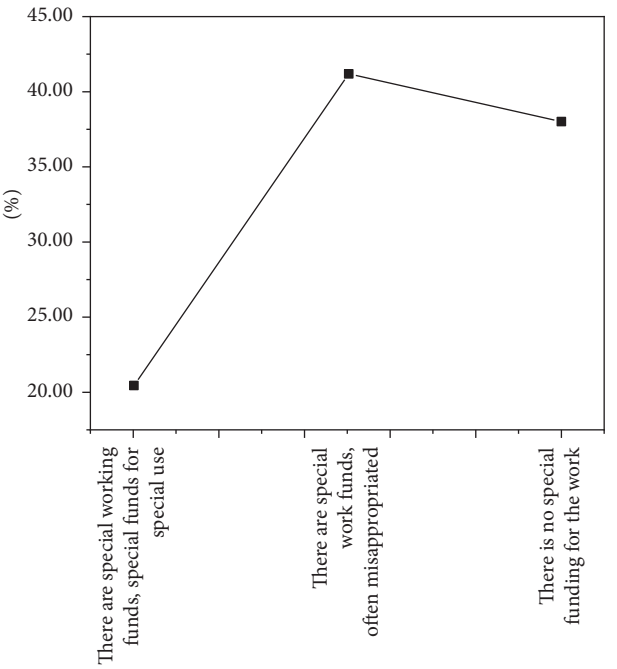

Figure 8: Fund guarantee of Ideological and Political Education Management.

Table 2: Adaptation of ideological and political education management to the requirements of the network era.

The content of ideological and political education management meets the requirements of the network era		The leadership mechanism and working mechanism adapt to the requirements of the network era	
Very adaptable	8.25%	Very adaptable	7.22%
Adaptable	14.43%	Adaptable	10.31%
Commonly	20.62%	Commonly	22.68%
Not quite adapted	46.39%	Not quite adapted	47.42%
Not suited to	10.31%	Not suited to	12.37%

In terms of culture and practice, 59.79% of people think they are not worthy or unworthy. It is necessary, which shows that the current educational concept and management of these schools do not conflict with the rules of the Internet age, which need to be changed and modified (see Table 2) [20]. From the perspective of the importance attached by vocational schools to the management of ideological and political education, 97.94% thought that the school attached great importance to, attached importance to, or generally attached importance to it, and only 2.06% thought that the school did not attach much importance to the management of ideological and political education, and chose the person who "did not attach importance to" as 0, which has a certain relationship with the characteristics of poor organizational discipline and lack of consciousness of vocational school students (see Figure 9).

The political institutions inspected 65.98% of the schools for faith and knowledge education [21] (see Figure 10).

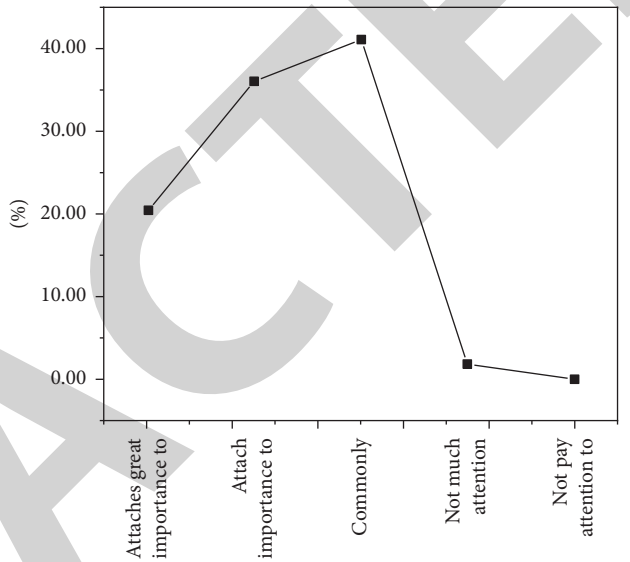

Figure 9: Importance of ideological and political education management.

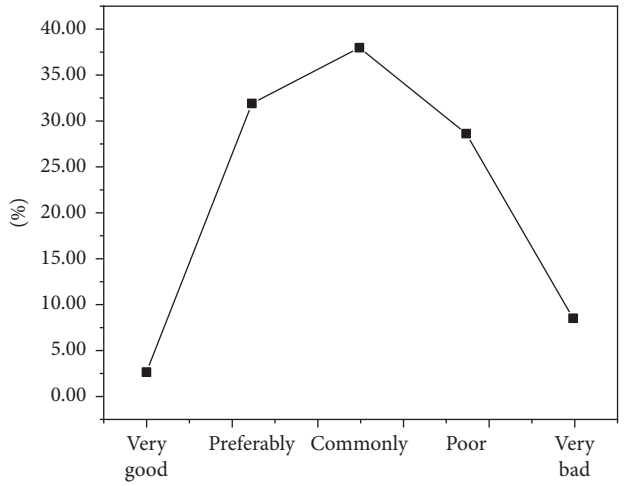

Figure 10: Overall effect of school ideological and political education management.

3.4. Presentation of Student Survey Results

3.4.1. Students' World Outlook: Outlook on Life and Values. Part of this questionnaire provides "three perspectives," a measure of school performance in education, culture and governance, students' perspectives on the world, life, and achievement in school. This part of the questionnaire adopts a five-point scale (0–4 points). In the questionnaire design, the higher the score, the more correct the student's "Three Outlooks," and vice versa [22]. Schools should strengthen the close cooperation with families, give appropriate guidance to parents, strengthen the training of parents' education methods, correct the theories and methods of family education, and build a warm and harmonious family atmosphere so that students can get a sense of security and emotional satisfaction in the family. In the design of the questionnaire, a reverse scoring question is also designed to prevent students from answering at will. This part of the questionnaire has been eliminated when counting the results of the questionnaire.

According to the test scores, 14.23% of students scored between 64 and 84 for "thinking about the world, thinking about life, and being productive," and students in this course contain the most accurate "three perspectives," 15.69% of students have a grade point average of 0–21 which is the lowest for students whose "three assumptions" are incorrect; the largest number of students scored in the middle area (see Table 3). This shows that the current administrative and political governance model in our country needs to be

Table 3: List of scores of students' world outlook, outlook on life, and values questionnaire.

Fractional interval	Total score	Percentage (%)
0–21	43	15.69
22–42	106	38.69
43–63	86	31.39
64–84	38	14.23

Table 4: List of students' attitudes toward the management organization and management concept of school ideological and political education.

The most effective way of ideological and political education		Organizational form of ideological education management		Management organization and implementation system of ideological education		The working style of ideological and political education managers	
Classroom theory teaching	11.34%	Novel, teaching in fun	18.22%	Very good, and the implementation is in place	29.55%	Ten thousand years unchanged	70.04%
Class meetings and lectures	25.51%	Old tune, stick to the rules	63.16%	I do not know	48.18%	Keep pace with the times and constantly improve	18.22%
Theme activities	38.87%	Indifferent	29.55%	There is no relevant system	33.20%	The quality of work is getting worse and worse	22.67%
Practice and training, feel the society	35.22%						

improved and perfected, and the benefits of ideological governance and governance management research are not good [23].

3.4.2. Students' Attitude toward the Management Organization and Management Concept of School Ideological and Political Education. Students believe that key points (38.87%) and vocational training (35.22%) are the best way to promote trust and culture. 63.16% of the students think it is "correct" that religious schools and political management follow the same path, while only 18.22% think it is "incorrect". "The importance of emotional and political management in schools is new, learning with fun." From the perspective of the organizational practice of administrative culture and politics, 81.38% of the students answered "do not know" and "not affected," and 29.55% of the students felt the school's organization and use in place. From the point of view of religious and political work, 70.04% of the students believe that "it will remain unchanged for ten thousand years," which shows that the three operating methods have lagged behind the Internet age. In order to adapt to the development of the times, we need to improve the work process and put forward defenses (see Table 4). Colleges and universities must establish the ideological and political affairs based on the network environment. Education concept, change the way of thinking about ideological and political work, and carry out ideological and political education innovatively. Be good at discovering students' bad psychological tendencies in the network, timely take effective measures to guide and guide communication, and really shoulder the responsibility of ideological and political work under the network conditions.

3.4.3. Students' Attitudes toward the Structure, Training, and Implementation of School Ideological and Political Education Management Team. From the students' attitude toward the structure of the ideological and political education management team, 35.77% of the students thought that the team structure and allocation of the school were reasonable, 24.09% thought that the allocation of all levels of the team was unreasonable, and 16.79% thought that the team structure and allocation were unreasonable. On the whole, students have better views on the structure of ideological and political education management team (see Figure 11).

From the implementation effect, the number of people who think that the school spirit and class spirit of our school are "average" is the most, and the number of people who think that "very poor" is only 5.11% and 8.03% (see Table 5) indicating that the management of ideological and political education has played a certain role in practice.

From the point of view of the level of thought and politics, 48.91% of the students think that our school has the highest level of culture. It is gratifying that 27.01% of students believe that the religious and cultural level of our school is constantly improving. However, 24.09% of students still think they are in elementary school (see Figure 12).

Judging by the students' preferences for culture and culture, 32.12% of the students liked the visit and study of the schools of morality in school, while only 7.86% of students preferred the poster and doctrine (see Figure 13). The cultural and political leaders of all the organizations that have passed the exam have been certified by the Association of Academic Affairs. This format is the easiest way to work for academic and political leaders, but it is also the least popular among students [24].

Judging from the students' evaluation of the problems existing in the school's ideological and cultural management, 67.5% of the students thought that "the content is not what I wanted," 58.03% thought that "the thesis is over. Alone," and 41.97% thought that "the content is not what I want. The level and quality are not good" (see Figure 14). It can be seen that the management of ideological and political education has a tendency of weight rather than quality. Its content and organizational form must be improved in "quality" in order to play its due role.

3.4.4. Students' Attitude toward the Evaluation of the Management Effect of School Ideological and Political Education. Judging by students' attitudes toward problem-solving in current cultural and political governance, students generally believe that cultural governance and current politics can help students solve problems (see Figure 15). In this regard, the attitudes of the students are similar to those of thought leaders and politicians, but service needs to be improved.

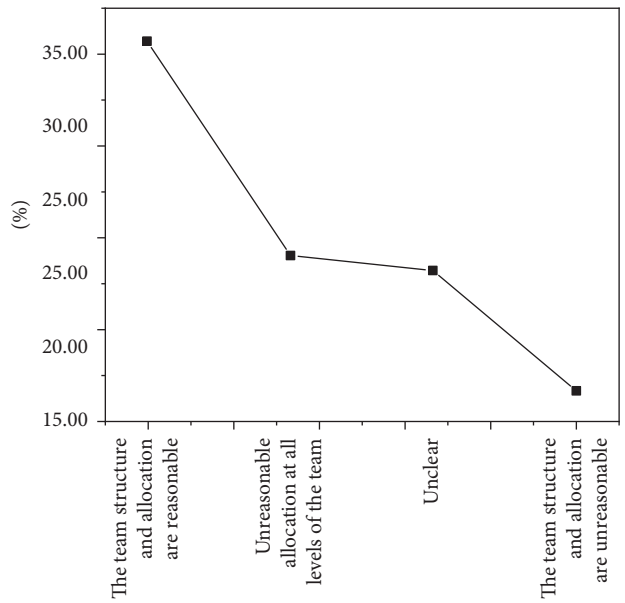

Figure 11: Students' attitude toward the structure of ideological and political education management team of the university.

Table 5: Students' attitudes toward the school spirit and class spirit of our school.

School spirit		School spirit of this class	
Very good	22.99%	Very good	19.71%
Preferably	19.71%	Preferably	25.18%
Commonly	43.43%	Commonly	38.69%
Poor	8.76%	Poor	9.12%
Very bad	5.11%	Very bad	8.03%

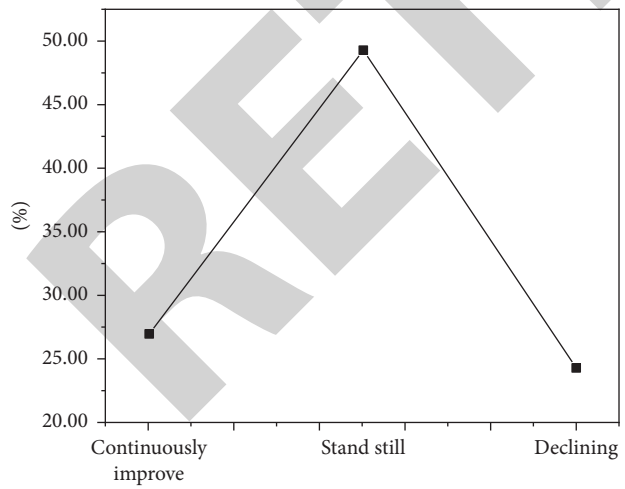

Figure 12: Students' attitude toward ideological and political education activities of the University.

Through students' assessments of school administration and government performance, more than half of the schools asked specific questions to assess the school's performance. Rules governing the mental and social health and well-being of employees. The development of these assessment

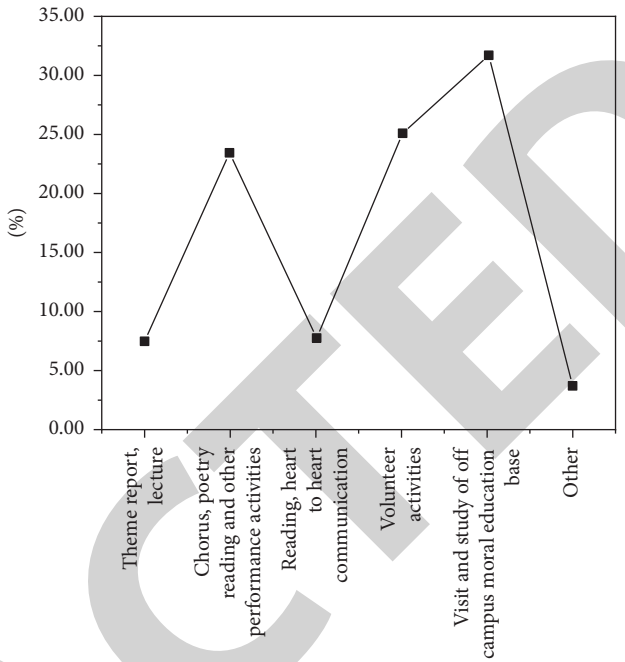

Figure 13: The form of students' favorite ideological and political education activities.

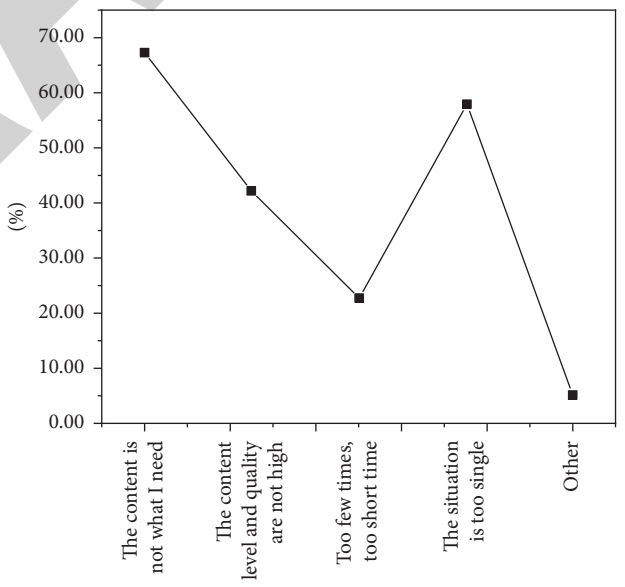

Figure 14: Results of the main problems in the school's ideological and political education management.

processes plays an important role in promoting political and politics (Table 6). Students should cultivate their personal psychological adjustment ability with a positive attitude. Actively carry out self-regulation, self-motivation, self-development, self-perception, self-catharsis, etc., to cultivate a good self-regulation mechanism, and to overcome psychological barriers.

Judging by the students' assessment of whether the concept of content management and whether the management meets the needs of the Internet age, 31.39% of

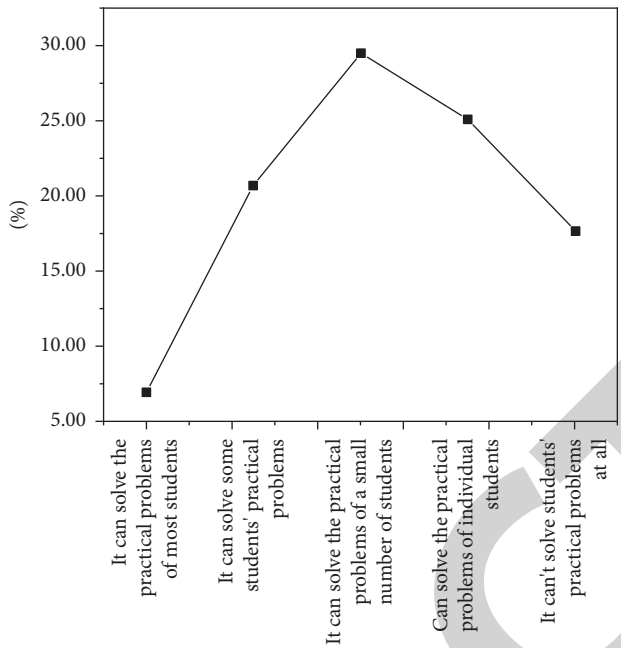

Figure 15: Students' attitude toward solving practical problems in the current ideological and political education management.

Table 6: Does the school have a list of evaluations for the management of ideological and political education or the managers of ideological and political education.

	Does the school have students' evaluation of the effect of "school ideological and political education and management" every year (%)	Does the school have students' evaluation of the work effect of "school ideological and political education management workers" every year (%)
There is a special questionnaire	57.66	54.38
Oral investigation	20.44	22.63
No effect evaluation	21.90	22.99

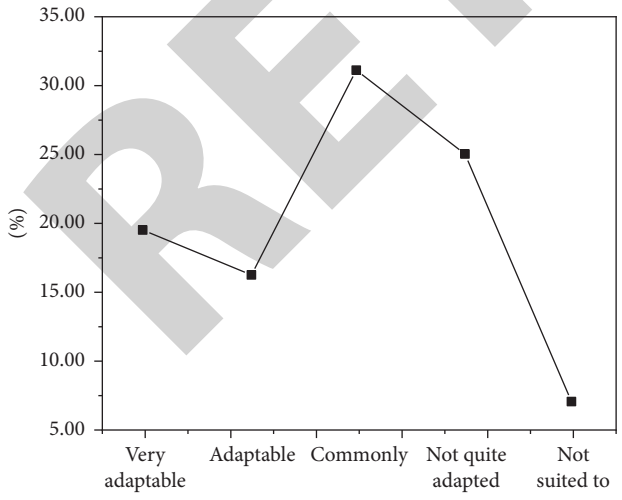

Figure 16: Students' evaluation of ideological and political education management content to meet the requirements of the network era.

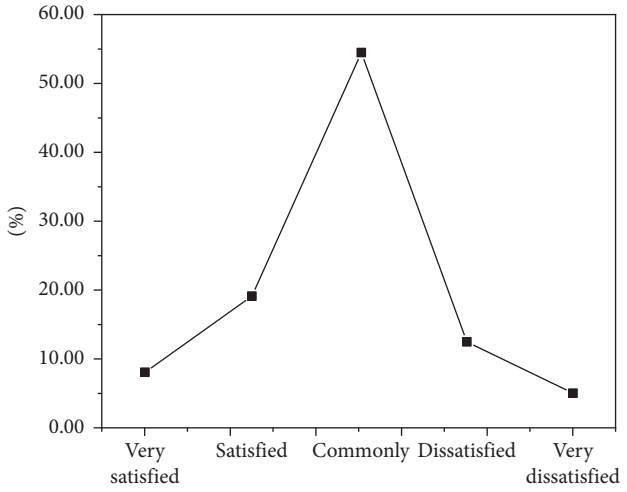

Figure 17: Overall evaluation of students on the management of ideological and political education in the school.

students answered that "control," and 19.71% and 16.42% of students considered "change" and "adapt," respectively (see Figure 16). It seems that how to change the concept and management system to meet the needs of the network age has become an important issue that needs to be addressed [25].

Judging by the students' assessment of various aspects of administrative culture and politics, more than half of the students said "control," indicating that the level and the type of political and political system still need to be improved (see Figure 17).

4. Innovative Countermeasures of Ideological and Political Education in Colleges and Universities in the Network Era

4.1. Innovation of the Role of Ideological and Political Educators

4.1.1. Become the Instructor of Students' Learning Methods. As a huge information concentration camp, the network not only provides people with valuable resources but also makes some bad information enter into people's life by force. For college students who are immature and unable to understand the realities of injustice, what they need at this time is not just to keep information fast and without end, but how to provide accurate and costly information. From multiple sources and use all this information quickly and efficiently to solve problems. In the new era, religious and political educators need to be aware of their changing careers, from cultural experts to academics and mentors student learning. Therefore, when providing theoretical knowledge to students, it is more important for teachers to teach students effectively, strive to improve self-control and self-awareness, and continue to improve the ability to extract, organize, and analyze information.

4.1.2. Become a Loyal Talker and Listener of Students. Because in the online world, everyone's identity is virtual and unreal, without the tension, anxiety, and concern of face-to-face communication, students are more likely to express their feelings, emotions, and opinions on the Internet. At this time, ideological and political educators should change the role of authority and leader in the past, act as the talker and listener of students, communicate with them in an equal identity, and understand students' thoughts, views, and demands in listening. Only when ideological and political educators really integrate into the students and master the students' real ideas, can they solve their confusion and doubts in time and suit the remedy to the case.

4.1.3. Become an Active Network Builder and Server. Educators and politicians should regularly discuss the relationship between the content of the Internet, constantly disseminate and promote the concept of ideology and politics on the Internet, and lead students to discuss hot issues by creating multiple red websites and ideological and political themes. Subtle engage and learn high skills to build relationships. For the bad information and vicious arguments in the network, ideological and political educators should eliminate and stop them in time, guide the topic to the correct discussion direction, and create a positive and harmonious network atmosphere for students. In the network environment, the responsible guidance of ideological and political educators in colleges and universities should be not only at the level of teachers but also connected with network builders and servers.

4.2. Innovation of Ideological and Political Education Content

4.2.1. Strengthen Network Moral Education and Legal Education. Improve college students' network moral awareness. Colleges and universities should, according to their actual situation and specific characteristics, adopt flexible and diverse ways to carry out the education of courses such as network ethics and network moral education among the teachers and students of the whole school and add network moral special education similar to "network is my home, harmony depends on everyone" and "everyone abides by morality and law, and jointly build a beautiful" network garden in the theoretical course of ideological and political education. In addition, colleges and universities can use all the technology in the network to provide fair guidance to college students through research, looking for activities such as online inquiry, online forum, online success discussion, and so on. College educators, especially ideological and political educators, must earnestly improve their morals, set an example, and use strategies to engage and inform students.

Colleges and universities should strengthen network law education, and conduct network law and Internet education for college students. In this regard, teaching activities can be carried out in ways and methods that students are interested in and willing to accept (such as case teaching, classroom discussion, audio and video broadcasting). For example, some practical cases in life can be integrated into the classroom teaching of ideological and moral cultivation and fundamentals of law, and vividly displayed in front of students by multimedia, so that students can understand and master them more deeply.

4.2.2. Increase Network Media Quality Education. In order to develop the best journalism for undergraduate students, the faculty and the political faculty in colleges and universities must have a full understanding of the Internet, including the history of the Internet, the process of Internet development, many factors influenced by the Internet, and how to use the Internet correctly. Through the detailed introduction of the network, let college students have an objective understanding and evaluation of the network, and make them understand that the network is not omnipotent, and the information provided by the network is not completely correct and reliable [26]. In the traditional teaching process of education, theologians and politicians pay close attention to the discrimination,

misunderstanding, and discriminatory choices of college students. For much of the information transmitted through the network, it is necessary to guide and learn to judge and identify with knowledge and cultural background, rather than follow others. In the new era, only by strengthening media coverage of college students, raising awareness of cultural and hateful political discrimination, and improving ideological and political capabilities, can we prevent violence and convey the importance and significance of communication.

4.3. Innovation of Ideological and Political Education Methods

4.3.1. Self-Education Method. Improving people's thinking and morals is only an important part of creativity and culture. Its main purpose is to promote human self-study memory and improve human self-study. In the network environment, college students' ideas are more prone to confusion and distortion, and they need to strengthen their position and reshape their faith through self-criticism and self-education. In this regard, college teachers and political scientists should make efforts to improve college students' self-awareness and self-education, and college students complete self-assessment, self-discipline, and self-discipline with great impact. The Internet actively promotes the development of its own ideological and moral values.

It provides personalized online training with leadership. Theoretical and political educators in colleges and universities can organize online debates, online writing successes, online knowledge contests, online book reviews, video reviews, and other activities on the school website to guide students to participate in discussions so that students can better understand themselves in the professional field. Activities, find out their strengths and weaknesses, and strengthen the knowledge and ability of self-study and develop good ideological character and political literacy in continuous transformation and progress.

4.3.2. Network Education Law. Open Weibo and WeChat separately for ideological and political research to improve impact. The concepts of ideological and political science are multifaceted. In order to strengthen its power and presentation, it is necessary to ensure the full interest and independence of the students. Based on the different themes of the thinking and culture and the development of the student organizations, we need to create a microblog platform through distribution, such as red revolution learning microblog, Lei Feng spirit learning microblog and mental health development microblog. At the same time, you can also create multiple WeChat accounts according to different contents and directions to guide students to discuss and study a certain problem in different WeChat groups.

5. Conclusion

These questions include governance and education and governance of the Internet age schools; strategy and management team management, training, operations, etc., evaluating the effects of culture and political management; managing student participation in theoretical and political science studies. Ideally, the results will not affect any aspect of Yantai Vocational School strategy and political administration. But from this perspective, it can be seen that the results obtained can not only explain the importance of governance and culture of the population but also the performance operation of the school in Yantai City, which also addresses some of the issues affecting the administration of the side culture and politics. Staff thinking: the design and management of the management level need to be improved. The administrative and political governance institutions need to be improved, the political and economic life governance framework lacks innovation; the ideological and political education benefit management lacks effective evaluation and supervision procedures. This information sorts out and analyzes the problems that arise in the research, and provides guidance and countermeasures on how to solve these problems: create an ideological and political control type that adapts to the Internet age; establish a theoretical and political research management team that adapts to the Internet of the times; the ideological and political governance path for the transformation of the Internet era; and establish a monitoring mechanism for ideological and cultural learning measures adapted to the Internet of the times. Strengthen the pace of network construction, according to the characteristics of the network to establish a special website on ideological and political education, occupy the commanding heights, contact the reality close to life, set up a variety of columns, and establish a platform to serve students, gather students, give full play to the initiative and combat effectiveness of online ideological and political work.

Data Availability

The labeled data set used to support the findings of this study is available from the corresponding author upon request.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

Acknowledgments

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Retraction

Retracted: On the Problems and Countermeasures of College Students' Mental Health and Safe Work under Network Environment

Journal of Environmental and Public Health

Received 26 September 2023; Accepted 26 September 2023; Published 27 September 2023

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) Peer-review manipulation

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.

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] Y. Xu, S. Liu, and Y. Chen, "On the Problems and Countermeasures of College Students' Mental Health and Safe Work under Network Environment," *Journal of Environmental and Public Health*, vol. 2022, Article ID 2993982, 11 pages, 2022.

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Research Article

On the Problems and Countermeasures of College Students' Mental Health and Safe Work under Network Environment

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Under the network environment, mental health and safety work on college is related to national security and campus security. Moreover, it affects the healthy development of college students. In the era of ever-changing mobile Internet, colleges and universities must take practical countermeasures against the problems in mental health and safety education on college and improve the relevance and effectiveness of college students' network safety education. This paper first finds the problems of college students' mental health and safety through questionnaire survey and analyzes the current situation of college students' mental health and safety under the current networked environment. In response to the problems found, we propose complete and systematic educational countermeasures. At the same time, we need to firmly establish the strategic awareness of network security education and strengthen the construction of network security education in colleges and universities. We should strengthen the construction of network security education in colleges and universities, form a joint effort of schools, families, government, and society, and improve the quality and effectiveness of network security education.

1. Introduction

Mental health is the foundation of talent quality, and only with a healthy psychology can the moral, intellectual, physical, and aesthetic development of college students be comprehensive [1]. Only with a healthy psychology can we cultivate the practical ability and innovative spirit of college students. As a special group, college students are in the process of maturity in psychological and physical aspects. During this period, they are more likely to have a series of physiological and psychological problems. If college students cannot adapt to the changes in study, life, and employment at this stage, they are more likely to have adverse effects on the psychological level [2]. If the adverse psychological effects are not taken seriously and solved in time, this will affect their study and life in college and even their work and life in the future. At the same time, due to the continuous development of higher education in China and the expansion of enrollment scale, the education management task of college students is getting more and heavier. Then, how to effectively conduct comprehensive and objective statistics on the mental health condition of college students so as to promote better mental health education of college students is urgent [3].

Network is a double-edged sword; with the development of mobile network information more and more rapidly, network security ferments rapidly. In recent years, network security incidents have often occurred in colleges and universities, which not only seriously affect students' daily life and psychological health but also threaten students' life and property safety [4]. At the present stage, many college students' network security awareness is relatively weak, their ability to deal with network emergencies is not strong, and they are easily influenced by the network environment [5]. Therefore, it is necessary to build students' awareness of network security in order to ensure the safety of college campus. At the present stage, college campuses are mainly for the

"00" postgraduates who have just come of age, and their ability to judge and discern many things still needs to be improved. Cyberspace has the characteristics of interactivity and virtuality. At the same time, it is also a hotbed for many unscrupulous elements to work around and publish all kinds of bad information. As some college students have not received systematic and comprehensive education, they are easily deceived, which is not conducive to the healthy growth of college students [6].

With the increasing informatization of the society, the daily life of college students has been closely connected with the Internet and cannot be separated from it [7]. This group gradually occupies the network space and becomes the most active part, and they show their own behavioral characteristics when using the network. Throughout the group of college students, most of them have safe, positive, and healthy behaviors on the Internet. However, there is a small group of people whose online behavior violates the social norms of behavior, which has a negative impact and even hinders the way of college students' growth and adulthood [8]. In such a background where the Internet is becoming more and more closely related to reality, if such bad Internet behavior cannot be effectively stopped and solved, it will definitely cause great harm to the college students, the school, and even the national society. While the Internet brings endless convenience to college students, it is also a risky vortex for college students to be involved in Internet fraud, Internet addiction, Internet violence, and Internet infiltration. In order to reduce the harm brought to college students by network problems, network safety education must be on the agenda [9].

This paper takes the network environment as the research background and focuses on the problems and countermeasures of college students' mental health and safety work. Through the analysis of the current situation of college students' mental health in the network environment, the key problems of mental health and safety work are identified, which makes the mental health and safety education work more targeted and effective. Through the questionnaire survey, combined with theoretical research, the specific problems of college students' safety in the network environment are explored. The reasons affecting the effectiveness of safety education for college students are analyzed, and the focus is on exploring the path of improving network safety education. It also proposes educational countermeasures for mental health and safety issues on college in the network environment. This motivates college administrators, mental health teachers, and educators to pay more attention to creating a good network environment. It also suggests effective ways to strengthen values learning, will cultivation, and good moral behavior to college students from the side, so as to reduce the harm caused by the network environment to college students' mental health.

This paper consists of five main parts: the first part is the introduction, the second part is the state of the art, the third part is methodology, the fourth part is result analysis and discussion, and the fifth part is the conclusion.

2. State of the Art

2.1. Concept and Characteristics of the Network Environment

2.1.1. The Concept of Network Environment. In a narrow sense, the network environment refers to a broadband, high-speed, integrated, wide-area digital telecommunication network built on the basis of the combination of electronic computers and modern communication technology [10]. This kind of network can cover one country, several countries, and even the whole world by setting up a network within a network and international interconnection. In a broader sense, the network environment also includes changes in national information policy, information management system, information system organization, user behavior, and social culture caused by network penetration and expansion. The former refers to the material entity of the network, which we may call the hardware of the network. The latter refers to the mental body (or abstract body) of the network, and we may call it the software of the network. The network environment of the information society should be a whole that contains both hardware and software. It includes not only network resources and network tools but also nonphysical forms such as learning atmosphere, learners' motivation, interpersonal relationships, and teaching strategies.

2.1.2. Characteristics of the Network Environment

(1) Resourcefulness and Share Ability. The network connects information owners around the world through certain technologies and communication rules [11]. It achieves the maximization of network resources. The Internet has become the world's richest "library" of information by connecting various computer terminals. Anyone can get all kinds of information about human current affairs, news, culture, education, life, and so forth with a click of a mouse and truly "know everything without going home." Most of the information on the Internet is free, and some of it is paid. But, no matter what way, the richness and sharing of network resources are attracting more and more people to use the network. As long as there is a network, people can upload all kinds of information to various platforms, and different people can download any resource through the network and publish it in their circle of friends. The information is circulated among different people to achieve resource sharing and improve the utilization rate of resources. It also demonstrates the richness and share ability of network resources.

(2) Openness and Globalization. As an information space, the network is composed of network hardware and network software. It does not belong to any one country, any one organization, any one nation, or even any one person. It is an open global system. Anyone can access any website around the world, browse information, exchange ideas, and so forth freely across time, space, race, gender, status, and age. Although different countries have their own cultural

backgrounds, the spread of new things fully reflects the openness and global nature of the network.

(3) Timeliness and Serviceability. Nowadays, with the common use of smart phones, people are used to getting resources from the Internet. This requires that the delivery of information must be timely. Newspapers, TV, and other traditional media retain traditional communication methods and have opened synchronous electronic news on the Internet. Many major events are uploaded to the Internet by witnesses through cell phones and computers as soon as they happen. The audience can get the information and express their opinions at the same time. Through the Internet, people can interact with each other anytime and anywhere to speed up the spread of information. In the virtual society, people can chat, play games, entertain themselves, or shop, all of which are to meet the most basic needs of human beings. Fundamentally, the Internet has a social function of service, a way of service. The Internet connects more people and groups, providing them with various needs and satisfying their service requirements in various aspects.

2.2. Domestic and Foreign Research on Network Security

2.2.1. Status of Domestic Research. Domestic research on personal factors of college students can be broadly divided into two aspects: personal basic conditions and psychological factors. Most of the studies on personal conditions are qualitative studies on the differences of college students' network safety perceptions in terms of gender, education, and major by using questionnaire surveys. According to the analysis results of the questionnaire survey conducted by literature [12] on college students, according to different sample types, male students, public security students, and engineering students would choose safer ways to pay and receive emails online. In the survey of Wuhan colleges and universities, it was found that the cognition of online security was more influenced by gender, education, and professional nature, and male students were stronger than female students, undergraduate students were stronger than graduate students, and academic students were stronger than technical students [13]. In terms of the difference in the cognitive ability of Internet fraud, the literature [14] found that the proportion of female college students being cheated was significantly higher than that of male college students when comparing college students of different genders encountering Internet fraud. The fact that female students are more likely to be cheated than male students indicates that female students are less able to recognize online frauds.

Relatively little research has been conducted on the psychological aspects of individuals, which are generally mentioned in studies of Internet addiction. The literature [15] suggests that Internet addictive behaviors are related to individual psychological characteristics, such as social fear, lack of self-confidence, depression, anxiety, and loneliness. The literature [16] found that the real-life loneliness of college students was predictive of the tendency to Internet addiction by studying the loneliness of college students and Internet addiction.

2.2.2. Current Status of Foreign Research. From the research accounts of foreign scholars, it is generally believed that, based on the current development perspective of globalization and internationalization, it is still impossible for any country or region to control the network development trend. The literature [17] argues that the key factor in preventing network security risks is user behavior rather than technology. The literature [18] mentions that some countries in the EU integrate the content of cybersecurity education courses with psychology courses and social practice courses to make the content of cybersecurity education courses richer and more vivid. The literature [19] suggests that cybersecurity education courses should be incorporated into the existing curriculum system of universities to make cybersecurity education courses more formalized and standardized. Literature [20] mentions that the content of network safety education in American universities includes teaching students how to surf the Internet safely and how to protect their privacy. From the existing studies, it can be seen that the curriculum of network safety education in western countries has become a relatively complete system.

Many countermeasures have been proposed in foreign studies to educate college students about cybersecurity awareness. The literature [21] found that foreign college students face the risk of identity theft through fraudulent emails, stolen passwords, and unsafe online practices. Literature [9] suggests that female college students have become vulnerable to cybersecurity problems due to their physical and psychological characteristics, and more attention needs to be paid to their cybersecurity education.

3. Methodology

3.1. Problems and Causes of College Students' Mental Health

3.1.1. Problems of College Students' Mental Health in the Network Environment

(1) Blindness in Self-Perception and Evaluation. The awareness of college students about the Internet is mainly at the level of use. They know very little about the mechanism of information dissemination and the social role of the Internet. Students are usually blind and vague about the multiple influences of the Internet and their purposes of accessing the Internet. Their Internet use behavior is basically spontaneous, and the supervision of school, family, and society is in a relative vacuum. In the traditional social environment, people's behaviors are often conscious, purposeful, controllable, and measurable. In contrast, college students appear to be blind in self-awareness evaluation in the network psychology, and they usually lack clear cognition about their social role positioning.

(2) Utilitarianism of Value Orientation. In the network environment, everything seems relatively virtual. Because of

this, college students who use the Internet are satisfied with the virtual sense and the sensory enjoyment and life value affirmation obtained from the network environment. At the same time, a series of value drifting problems have emerged in this era, such as money worship, individualism, and anarchism which are very prominent. This makes college students have serious deviation in life values. They choose blindly in their beliefs, are at a loss in their life planning, and become more secularized and utilitarian in their lifestyles.

(3) Vulgarization of Moral Outlook. In the network environment, the space is virtual, the identity is hidden, and the restraint is weak. This makes college students reduce their control over their sense of responsibility. In the network environment, some college students show the dark side of human nature, moral indifference, and deviation from moral behavior, as well as reduced sense of moral responsibility. In other words, the Internet has encouraged their rebellious side. This directly leads some college students to form vulgar moral views and their human ecology begins to become somewhat "game state." Their concern and sense of responsibility for their studies, future, and society are far from enough.

3.1.2. Causes of Mental Health Problems among College Students

(1) The Conflict between the Reality and the Virtual Nature of the Internet. The Internet is a mapping of reality, but it cannot replace reality. Some college students with unhealthy psychological tendency cannot distinguish the difference between the network world and the real world. In their opinion, the network is life. Due to their upbringing, personality, and interests, they are reluctant to communicate with their classmates and teachers in face-to-face verbal communication. They tend to accumulate such negative emotions and energy in their subconscious, thus creating various psychological disorders or unhealthy psychological tendencies. The Internet, however, opens a virtual door for them and provides them with a mental haven. In their view, boredom, pain, anxiety, and other emotions can be released through cyberspace in the online environment. However, no matter what kind of pleasure they get in the online environment, the problems that exist in reality cannot be solved accordingly. After going offline, they still have to face these real psychological problems, and the sense of loss and alienation will become stronger and stronger. Out of avoidance, they will come into cyberspace again to seek solutions. Once this vicious circle accumulates to a certain extent, it will lead to serious psychological disorders.

(2) The Conflict between Emotional Catharsis and Self-Control Out of Control. According to the research findings, even those college students with excellent grades, outstanding appearance, and superior economic conditions would like to go to the cyberspace to find a larger range of recognition, respect, and spiritual support. In the online environment, people from different countries, races, and

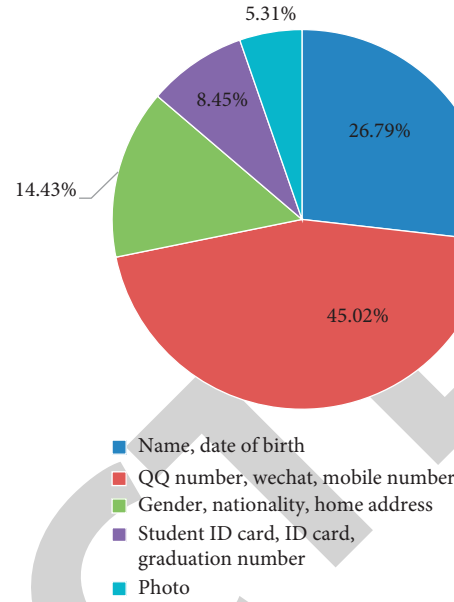

Figure 1: Survey specific results for registered new account privacy protection.

ways of thinking come together to create a broad stage for performance. In the cyberspace, college students can temporarily forget about their social roles, social influences, and face problems and express themselves as they like. What is more, some college students use network control to express their existence and value. Some college students who are proficient in network attack techniques often lose self-control in the process of emotional catharsis, causing serious infringement on the interests of others and society and moreover posing an objective threat to the network world.

(3) The Conflict between Personality Factors and Internet Addiction. College students with poor self-restraint ability are easily affected by the negative influence of the Internet. Those college students who pay attention to the present enjoyment are prone to the symptoms of Internet addiction. Those college students who care more about whether they accomplish their set goals can generally show stronger self-control in front of the Internet. Those who are frustrated, such as losing at work, social fears, or losing love, indulge in the Internet in order to seek relief and can rely on online stimulation to make up for the unsatisfied trauma of the oral period. The Internet becomes a mental agitator, a facilitator of secondary benefits, and a place for the realization of the spirit of entertainment supremacy.

3.2. Problems of College Students' Network Security Education

3.2.1. Weak Awareness of Network Security

(1) Weak Awareness of Privacy Protection. The subject of privacy is a natural person, and the content of privacy refers to the fact or behavior that a specific person keeps secret about his affairs, information, or fields and does not want others to know or interfere in. According to the survey results, most

college students are not aware of the protection of privacy contents such as name, ID number, and cell phone number. When asked "when you register a new account, which of the following information will you disclose or fill in?," 26.79% of college students chose to fill in their name and year of birth. 45.01% of college students think they can disclose QQ, WeChat, and cell phone number. 14.43% of college students choose to fill in gender, ethnicity, and home address. 8.46% choose to fill in student ID, ID card, and graduation number. 5.31% choose to upload photos. Due to the technical loopholes of APP, students should fill in personal information selectively when seeking services through APP, such as cell phone number, home address, ID card number, student ID card, and graduation number, and photos should be added carefully. The specific situation is shown in Figure 1.

In response to the question "do you read the privacy policy when you register as a new user?," 32.13% of college students chose "I don't read it carefully and I do n't think it's necessary." 59.56% of the students said "I don't read it carefully, and I just read it in general." 8.31% of the students chose "I will read it carefully." According to the questionnaire data, students who "just read it" did not see any substantive content of the privacy policy but just skimmed a few times. The privacy policy is an electronic contract of use, which specifies your rights and obligations. However, the majority of college students does not see or even read the privacy policy, and their awareness of privacy protection is weak, which makes education about Internet security more difficult. The specific findings are shown in Figure 2.

(2) Low Legal Consciousness. According to the survey results, most college students have low legal literacy and weak legal awareness. When asked "which of the following incidents have you done?," 7.71% of college students have used other people's articles and viewed other people's privacy without their consent. 51.26% of college students have used software to crack other people's WiFi password. 4.94% of college students have uploaded other people's photos or images privately. 2.43% of college students have used other people's names to do something against morality or even law. 6.47% of college students have viewed other people's cell phones, tablets, and computers without their consent. From the legal point of view, breaking others' WiFi passwords is suspected of violating others' personal property. The specific survey results are shown in Figure 3.

When asked "when you or your classmates encounter online fraud, how would you handle it?," 27.82% of the students chose to report to the public security authorities to protect their own rights and interests by applying the relevant laws. 14.06% of the students would report to their class cadres and counselors in time. Meanwhile 28.63% of the students thought that if the amount was not large, they would admit their own bad luck and would not bother to deal with it. 6.81% of the students chose other ways to deal with it, while 22.68% had not encountered online fraud. The specific survey results are shown in Figure 4.

(3) Weak Awareness of Protection. With the advent of the Internet era, our living space has been greatly expanded. The

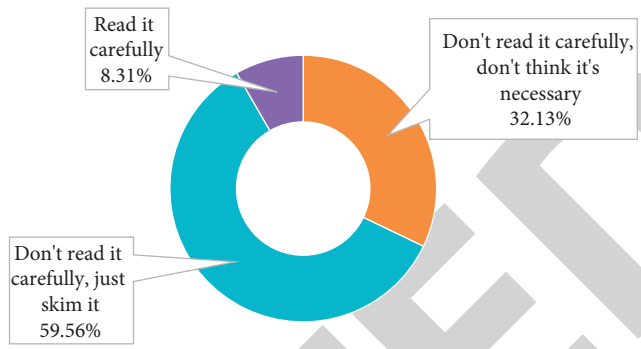

Figure 2: The privacy policy carefully read to investigate the specific results.

"Internet+" has given birth to a new development model. The Internet is a "double-edged sword"; the popularity of the Internet not only brings convenience to the public at the same time but also gives rise to a series of security issues. They include system paralysis, hacker attacks, business leaks, network fraud, and privacy leaks.

In response to the question "what are the main software you use now for network security?," 83.32% of college students chose "antivirus software." 56.65% of college students chose "firewall." 28.22% of the students chose "information content filtering," and 26.04% chose "intrusion vulnerability checking." 9.25% of the students chose "other." When asked "do you know how to use firewall and antivirus software?" 16.92% of college students chose "yes and can operate it skillfully." 65.65% of college students chose "half know" and 17.43% chose "no know." The specific survey results are shown in Figures 5 and 6.

(4) Low Discriminatory Ability of Network Information. With the advent of the era of big data, the trend of explosive growth of Internet information has emerged. How to absorb the nutrients in the infinite network information and become a more qualified successor requires the contemporary college students to have a strong ability to distinguish the network information.

When asked "what would you do if you are asked to scan the QR code when you encounter a discount event?," 9.57% of the college students often scan the QR code and think the security problem is not big. 62.39% of the college students choose to do it occasionally and are a bit worried about the security problem. 28.04% of the college students are very cautious and never scan it. The survey results show that most college students have the awareness of distinguishing online information, and only a few of them choose profit and give up online security when they are tempted by profit. However, only a few of them have the ability to distinguish online information among the majority of college students who have the awareness of distinguishing online information. The specific survey results are shown in Figure 7.

In response to the question "how would you choose to log in to the website provided by the recipient for the normal use of your bank card when you receive a text message?," 28.64% of college students would check carefully before deciding whether to log in. 33.53% of the students thought it

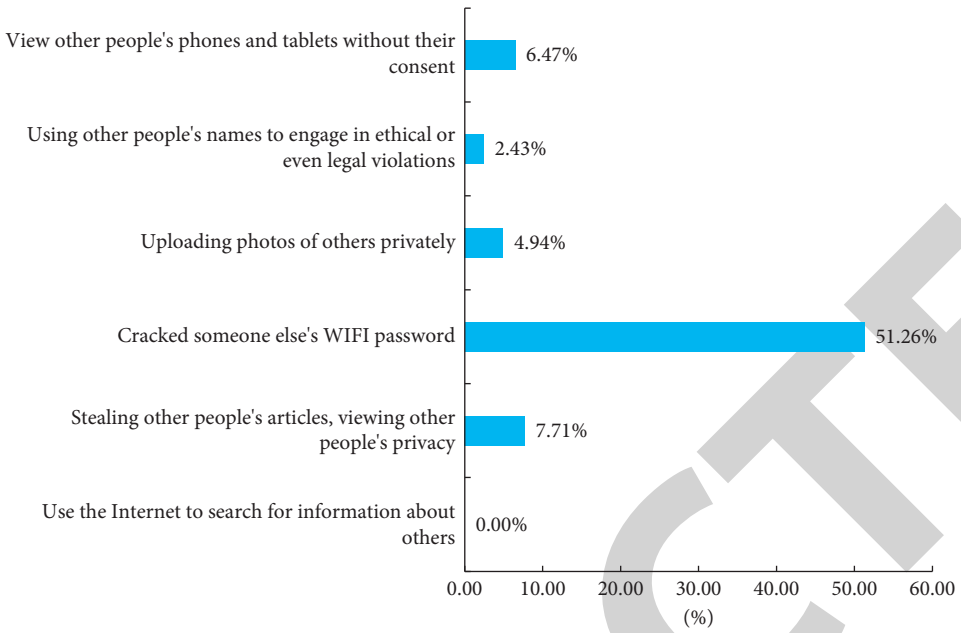

Figure 3: Events done to investigate the specific results.

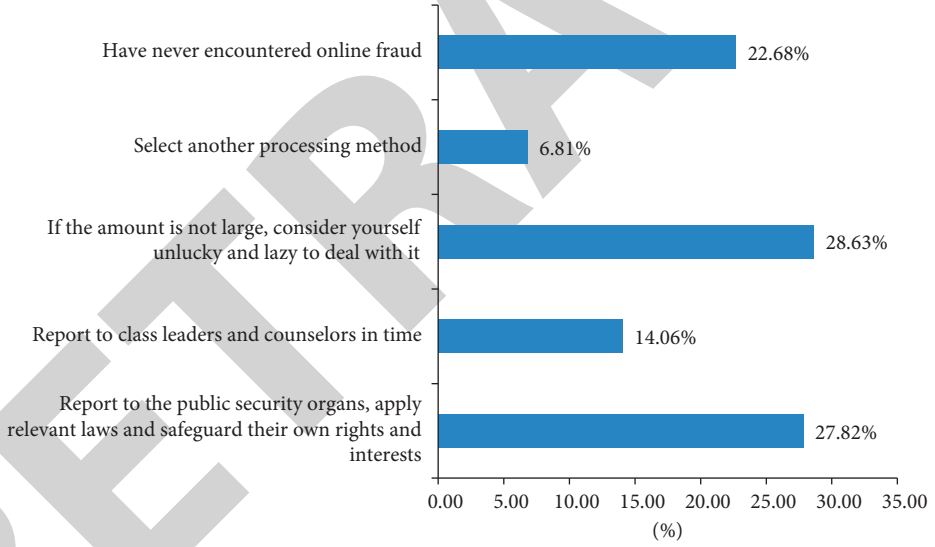

Figure 4: Handling of the specific results of Internet fraud investigations.

might be a phishing website and were vigilant about it. 4.81% of the students chose to wait and see if they would call the police. 33.02% of the students did not pay attention to it. The survey results show that two-thirds of college students have the awareness of discriminating online information when it is related to their own property security. Since college students come from different social environments before receiving higher education, they make choices with relative discernment under the guidance of discernment awareness. However, the remaining one-third of college students choose to ignore it and put their own property security in the online world indifferently, laying a hidden danger for the future network security problems. The specific survey results are shown in Figure 8.

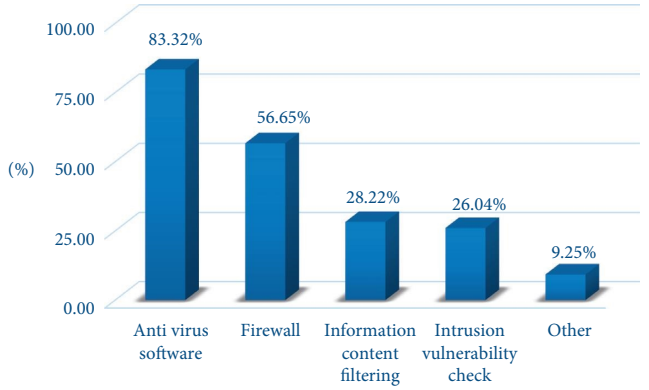

Figure 5: Use of network security software to investigate specific results.

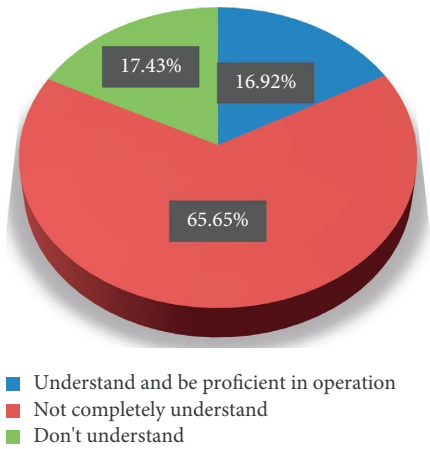

Figure 6: Proficiency in network security software to investigate specific results.

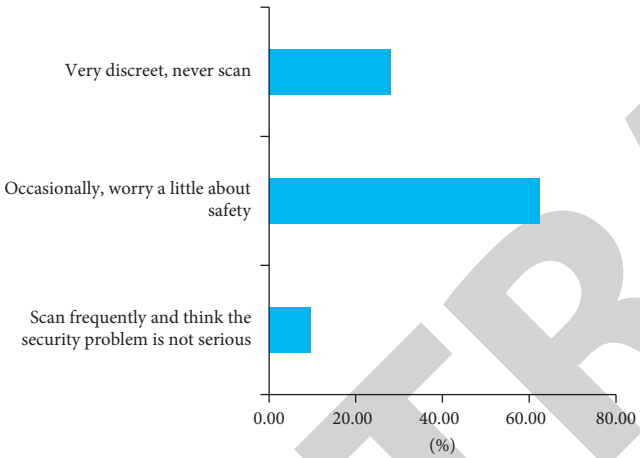

Figure 7: Survey specific results for discount to scanning QR code.

(5) Weak Self-Control Ability on the Internet. With the further development of the information age, the Internet has become an indispensable means and carrier for college students' daily life, study, and communication with its rich content, fast transmission speed, and strong penetration. When asked "have you ever browsed unhealthy websites of pornography, gambling and drugs?," it was found that 5.62% of college students often browse "pornographic, gambling and drug" websites. 36.54% of college students occasionally browse "pornographic, gambling and drug" websites. 57.84% of college students never browse "pornographic, gambling and drug" websites. The Internet economy is also known as the eyeball economy, and pornography, gambling, and drugs are wearing a bright veneer, occupying the sight of college students and eating up the world of college students. The specific survey results are shown in Figure 9.

3.2.2. Inadequate Content of Network Security Education. Educational content refers to the overall culture of knowledge, skills, behavioral norms, values, and worldviews that

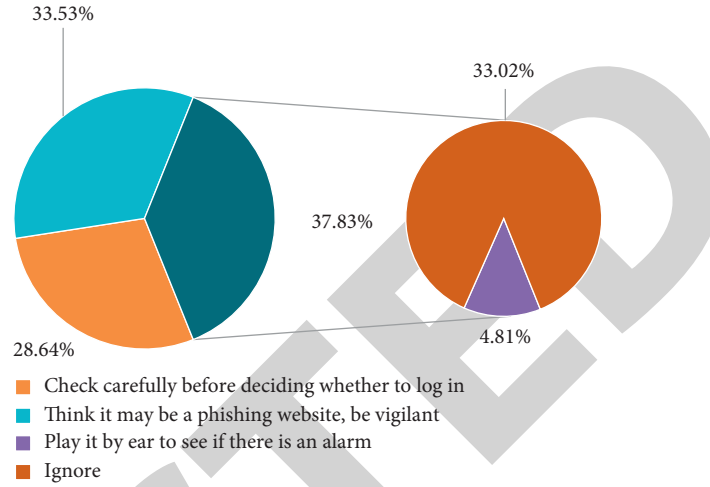

Figure 8: Used bank card to access the website provided by the other party.

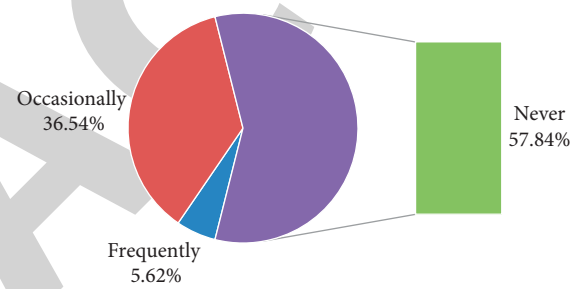

Figure 9: Specific results of the Internet self-control ability survey.

are selected and incorporated into the process of educational activities in order to achieve educational goals. Network safety education is an educational activity to improve the comprehensive quality of college students to cope with the network society. The goal is to promote the all-round development of college students in both spaces. In order to achieve the goal of network safety education, scientific and reasonable lesson contents need to be selected.

(1) Lack of Systematization of Education Content. At present, the network security education in China's colleges and universities mainly relies on ideological and political education theory courses and public courses of college students' computer for realization. According to the attributes of disciplines, each discipline has its own educational goal, and the main purpose of college students' safety education is to improve college students' ability to cope with real-world safety. However, the content of network security education set by universities to achieve the educational objectives is mostly a simple superposition of the educational content of Civics and Political Science class, computer education content, and security education content. This leads to incomplete coverage of cybersecurity education content, lack of logic between education content and unsystematic structure of education content, and difficulty in achieving the optimal trend of education results.

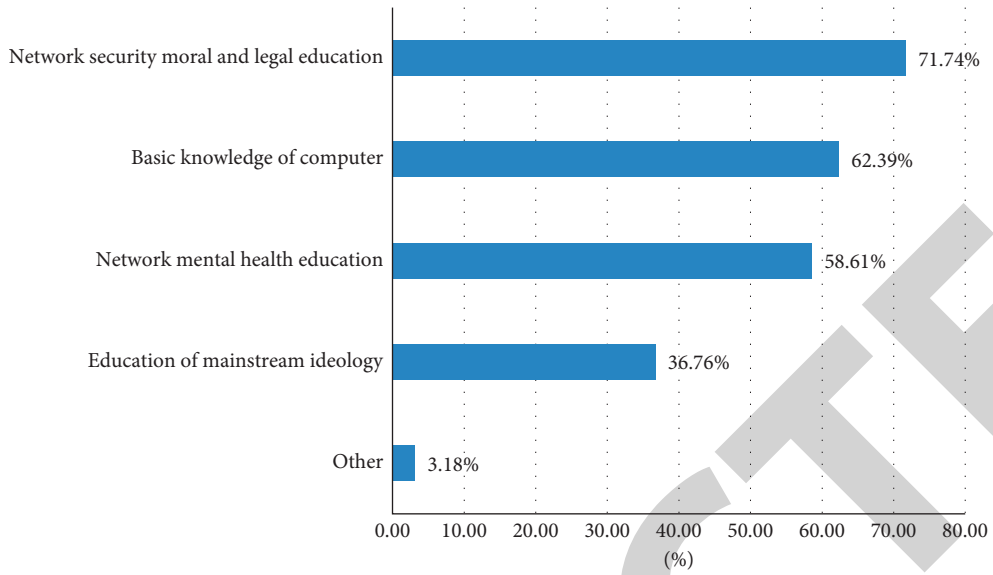

Figure 10: Specific results of the survey on the lack of empathy in educational content.

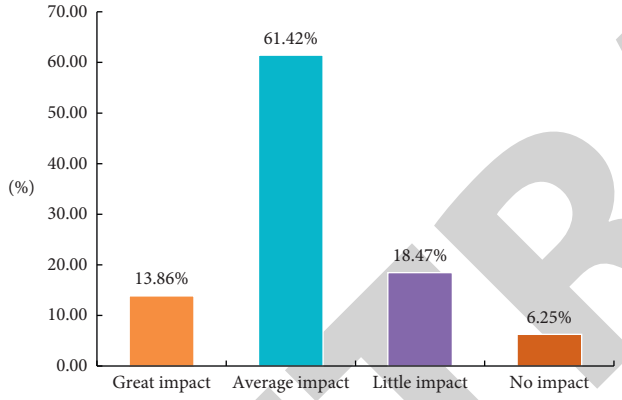

Figure 11: Specific results of the network safety education survey.

(2) Lack of Empathy in Education Content. Education is a practical activity that affects students, and it is an art that touches students' emotions. In order to achieve a deep-rooted educational effect, it is necessary to build a sympathetic content system according to the needs of students. When asked "what aspects of network security education do you want to carry out?," 62.39% of college students chose "basic computer knowledge." 71.74% of college students chose "education on network security ethics and laws." 58.61% of college students chose "education on network psychological health." 36.76% of college students chose "education on mainstream ideology." 3.18% of the students chose "other." Among the other options, the participating college students also mentioned "education on online payment" and "prevention of online fraud." The specific survey results are shown in Figure 10.

3.2.3. School Teachers Do Not Pay Attention to Network Security Education. Colleges and universities are the main position of ideological and political education in China. Therefore, ideological and political educators play an irreplaceable role in the process of educating people. With the expansion of the virtual world, network safety education has become an important part of ideological and political education. Most of the network safety education activities in colleges and universities are organized by ideological and political educators, and the traditional safety education methods are mostly used in network safety education. These include classroom learning, expert lectures, window banners, club activities, and other methods. Under the guidance of traditional education methods, the survey results show that 13.86% of college students choose "great." 61.42% of college students choose "average." 18.47% of college students think it has little impact. 6.25% of college students choose "no impact." At the same time, the survey results show that the impact of network security education in colleges and universities does not call for optimism. Although most colleges and universities carry out network security education, and the depth and breadth of the impact of network security education are worth our reflection. The specific survey results are shown in Figure 11.

4. Result Analysis and Discussion

4.1. Methods of Implementing Mental Health Education. The path of psychological education for college students in the network environment mainly revolves around the network, and the methods of mental health education for college students are innovated through the network. There are many forms of online psychological education activities, such as online psychological classroom, mental health public platform, class blog, mental health QQ group, and mental health education software. These activities are carried out by making full use of the Internet, which is a convenient and familiar way for college students to transmit mental health knowledge, contents, methods, and ideas. Through the development of various network psychological education

activities, not only can college students fully experience the convenience brought by the progress of network technology, but also they establish the correct concept of mental health and guide their healthy psychological development through the development of activities. For example, online psychological classes can allow college students to communicate with specified experts and scholars thousands of miles away to solve their psychological confusion.

4.1.1. Email. Colleges and universities can disclose the emails of psychological education and counseling workers to college students and inform them that they can contact them by e-mail to seek solutions to their psychological problems and confusions. The psychological educators who receive the emails should answer the students' questions in a timely manner to help them form a sound psychological concept of themselves and their ability to adapt to the outside world. At the same time, it should be noted that the student's identity and personal information should not be revealed. E-mail counseling is the best way to address sensitive issues such as sexual orientation, love, and psychological crime.

4.1.2. Message Board. Leaving a message on the message board of psychological education forum is also a way to solve the psychological problems and confusion of college students. At present, BBS and public platform have become the network space that college students pay attention to, which makes it an important platform for psychological health education in colleges and universities. On this platform, colleges and universities can ask famous psychologists to solve college students' psychological problems.

4.1.3. Internet Chatting Consultation. This is a kind of instant information exchange method, which is obviously different from the first two types of methods, and it requires experts or psychological educators to be on duty at a fixed period of time. Chatting can be done through QQ, WeChat, and MSN or in a special chat room, and the chat can be divided into text chat and voice chat. Due to the immediacy of information transmission, the effect of text chat is much stronger than traditional letter counseling, while voice counseling has a The part "Fourth, network conference counseling" is grammatically unclear. Please rephrase this part for clarity.better intervention effect on certain college students' psychological crisis.

4.1.4. Web Conference Consultation. The most important feature of network conference is that it can use camera technology to allow experts and workers to talk with college students face to face. It is possible to judge the mental health condition of college students from their most intuitive visual perceptions such as voice, intonation, facial expressions, and body movements through the network technology. At the same time, the network meeting also breaks the limitation of time and geography, which makes the exchange and interaction of information possible. Although this is a relatively expensive way now, it will benefit many college students' mental health education as technology advances.

4.2. Strengthen the Governance of Cyberspace and Network Content Construction. First, the governance of cyberspace is strengthened to create a good network environment. The governance of cyberspace fundamentally lies in the strengthening of network legislation. At present, China's network legislation obviously lags behind the development speed of Internet technology, and the laws and regulations governing the network environment need to be improved. On the one hand, the network legislation is strengthened, and the principle of network access is regulated. For the practice of spreading network rumors, speculation, smearing historical figures, and spreading reactionary speech, we should increase the crackdown and punishment and severely pursue their legal responsibility. On the other hand, the control of network information is strengthened, and a clear mechanism of network supervision is established. The online behavior of online social platforms, online forums, and large websites is regulated.

Second, the construction of network content is strengthened, and the quality of network communication is improved. On the one hand, the top-level design is strengthened, and the network content is optimized. On the other hand, in the way of network content dissemination, the construction of network discourse system is strengthened, and the high ground of network propaganda is seized. Online ideological propaganda work to pay attention to the scientific and accurate network language. In addition, because ideological propaganda work is highly theoretical and is not easy to be understood and accepted by ordinary Internet users, we should use the Internet users to enjoy the dissemination, as well as innovative means of communication and popular language for explanation.

4.3. Strengthen the Construction of Campus Activities and Campus Culture. The good or bad campus environment is directly related to the effect of ideological safety education of college students. Campus culture is a microcosm of social life and campus life, and colleges and universities make use of the subtle inculcation and infection effect of culture on people. By improving campus cultural facilities, using campus media, and creating campus cultural activities, we can transmit the mainstream social values and ideology to students, so that their daily behavioral practices can truly conform to social standards and moral codes.

First of all, the construction of campus cultural facilities is strengthened and a good physical culture environment is built. Campus cultural facilities are the external expression of campus culture and the material carrier of campus culture construction. Universities should increase the investment in the construction of cultural facilities and make full use of campus radio stations, electronic displays, official websites, physical landscapes, and propaganda slogans to promote mainstream culture and mainstream ideology. We should make full use of the cultural facilities and educational

functions of the campus, so that students can be influenced by the campus culture.

Second, the guidance function of campus media is strengthened. Campus media is an important position of school ideology and propaganda work and is an important channel for information transmission and ideological leadership. Campus media mainly includes campus radio stations, campus forums, school magazines and newspapers, official microblogs, and Weibo. Campus media propaganda work adheres to the correct value orientation and directional principles and strictly filters junk information and reactionary speech. Sensitive issues should be treated seriously and handled seriously to strengthen the dissemination of mainstream ideology among the student body.

4.4. Carry Out Legal Education and Raise Awareness of the Rule of Law. First, the education of legal knowledge of network security is strengthened, so that college students know the law and understand the law. Strengthening the network legal education of college students is an important link in the process of promoting the comprehensive rule of law. To strengthen the network legal education of college students, the first thing is to clarify the main content of network legal education. On the basis of clear education content, colleges and universities should offer the legal knowledge course as a compulsory public course in the whole school, instead of just limiting to law students.

Second, the daily practice of network laws and regulations is strengthened, so that students abide by the law and use it. On the basis of mastering certain knowledge of network law, college students should consciously abide by network laws and regulations in their daily network environment activities, conscientiously fulfill their responsibilities and obligations in cyberspace, and be strict abiders of network laws and regulations. In the face of infringement of rights and campus safety, college students should learn to use network laws and regulations to protect their rights and interests.

4.5. Emphasize Moral Education and Improve Self-Discipline. The governance and construction of cyberspace require the mandatory restraint of laws and regulations on the one hand and the flexible restraint of moral codes on the other. Through the development of online moral education, students can regulate their own words and actions on the Internet under the constraints of moral codes and form a good environment on the Internet.

Due to the anonymity and freedom of expression in the network environment, the moral norms in the real society become less and less binding on the network. At this time, it is especially important to strengthen college students' online moral education and cultivate students' online self-discipline consciousness and self-control ability. College students' online moral education focuses on cultivating their moral self-discipline consciousness characterized by "prudence." Educators should appropriately increase the content of network ethics education in the teaching process or specially open a course related to network ethics education, so as to give college students systematic knowledge explanation and theoretical education and make students clear the network ethics requirements they should abide by when participating in network life. The purpose of strengthening online ethics education is to cultivate students' green online behavior, form self-control consciousness and self-discipline ability online, resist the erosion of bad information on the Internet, and promote students' healthy and comprehensive growth.

5. Conclusion

With the continuous popularization of Internet technology, the network environment becomes more and more complex. Today's college students are faced with the network environment supported by the Internet and linked by information resources. The network not only changes college students' life and learning style but also changes their cognition of network security and brings about a series of troubles. The influence of network environment on college students' mental health is multifaceted and omnidirectional. All kinds of bad information are full of network space, as college educators fully understand the importance of college students' safety. Colleges and universities should face up to the problems of weak consciousness, weak coping ability, and imperfect teaching system of college students in network security. This paper analyzes the problems and causes of college students' mental health and safety through questionnaire survey and takes targeted measures to better solve the problems of college students' mental health and improve college students' network security ability, so as to ensure the high quality of college students' mental health and safety work under the network environment. The next step will be to strengthen theoretical knowledge, ask more profound questions and ideas, and also analyze the questionnaire data more thoroughly.

Data Availability

The dataset used to support the findings of this study is available from the corresponding author upon request.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

Acknowledgments

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Retraction

Retracted: Analysis on the Development and Influence of National Fitness Environment on Youth Basketball Coordination and Mental Health

Journal of Environmental and Public Health

Received 26 September 2023; Accepted 26 September 2023; Published 27 September 2023

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) Peer-review manipulation

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.

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.

References

[1] P. Lu and Y. Su, "Analysis on the Development and Influence of National Fitness Environment on Youth Basketball Coordination and Mental Health," *Journal of Environmental and Public Health*, vol. 2022, Article ID 6340347, 12 pages, 2022.

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Research Article

Analysis on the Development and Influence of National Fitness Environment on Youth Basketball Coordination and Mental Health

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In order to improve the basketball theory and provide theoretical and intellectual support for the scientific, mental health, and sustainable development of basketball, we propose to take the development dynamic mechanism of juvenile basketball as the research object and make a systematic and in-depth study on the dynamic mechanism, the cultivation of Chinese and foreign juvenile basketball reserve talents, and the dynamic dilemma and influencing factors of juvenile campus basketball development by using the methods of literature, questionnaire, and expert interview. A method of cultivating the ring tone of juvenile basketball is proposed. This method is based on Chan algorithm. When the target is close to each base station, the first estimation also needs an initial value to solve the initial solution estimation matrix. The method is also based on multivariate Taylor algorithm, taking into account the measured distance between the targets to be measured, so it will get some useful information, which will improve the positioning accuracy. The experimental results show that the accuracy of the algorithm used in this paper is more than 85%. However, the accuracy of rebounding and passing recognition and prediction is low. The recognition accuracy and prediction accuracy of the test set are slightly lower than that of the effective set, which shows that the performance of the target detection system model in this paper can be further improved through more significant training examples. It is proved that the algorithm based on Taylor ring can meet the needs of teenagers in the basketball coordination and mental health.

1. Introduction

The development of national fitness has been more than 20 years, and national fitness has risen to the height of national strategy. Although there are many discussions on the issues related to national fitness, there are still deficiencies in theoretical research. Basketball has made brilliant achievements, but its position in the world and even in Asia has declined in recent years. The reason is that many contradictions between the theory and practice of basketball reserve talents, especially young basketball reserve talents, are becoming increasingly prominent, and there is a lack of motivation. As an innovative action with the characteristics and significance of the times, national fitness not only is prominently reflected in the development of mass sports, but also has become an important aspect that can continuously provide and improve the needs of sports fitness for all citizens and significantly improve the health quality of all citizens. In terms of developing productive forces, mobilizing the people to participate in sports activities is an investment that can return the maximum benefits. In terms of human needs, national fitness is consistent with the ultimate goal of socialism to enable people to live a happy, civilized, scientific, and healthy life. As the masters of society, the people should and can enjoy everything given to them by sports. In terms of social development, it should include the development of social undertakings such as science and technology, education, culture, health, and sports, as well as social employment, social security, social equity, and social harmony. Therefore, today's national

fitness is not only a mass sports development plan, but also an idea, a direction, and a cause. It has become an operation symbol for coordinating all elements and aspects of mass sports to play a role in a certain direction. It has become a mechanism for coordinating the development process of mass sports and promoting the development of mass sports. At present, from the perspective of relevant domestic research, there is still little interpretation and analysis of the connotation of national fitness, mainly focusing on the current situation and existing problems of the use of national fitness path, the development and role of social instructors in national fitness, the current situation and countermeasures of national fitness, the research of national fitness service system, and the interpretation and analysis of relevant documents. Therefore, judging the connotation of national fitness from a theoretical perspective, breaking through the previous conventional research and using philosophical thinking to break the common sense is the direction of this paper, which will help to eliminate the current widespread one-sided and vague understanding of its concept, so as to lay a foundation for the research of national fitness-related issues. After visiting, introducing, and training in recent years, some parts of China are no stranger to functional physical training. Whether scholars engaged in physical training research or physical coaches practicing in the front line, their understanding of functional physical training tends to be complete and systematic, which has not only emerged a large number of scientific research achievements, but also made great contributions to the excellent achievements of national and provincial sports teams. However, in many underdeveloped areas, nonmain or youth sports teams are unfamiliar with functional physical training. Functional physical training should gradually spread from the spire of the "pyramid of Chinese competitive sports" to the middle and lower levels, so as to lay a solid foundation for Chinese competitive sports. In this new era of rapid development and ever-increasing challenges, in addition to heavy academic pressure, China's youth groups are also faced with complex changes in the social environment and interpersonal relationships. However, compared with college students and adults, the mental level and personality of most teenagers are still in a stage where they need to be properly guided and systematically cultivated and shaped, so when they encounter the above problems, they will inevitably experience anxiety, depression, emotional out-of-control, negative emotions such as conflict with others, self-defeating, and even more serious mental health problems, resulting in incorrect social behavior. In order to relieve and release the pressure of study and social life borne by young students, you can try to carry out a moderate amount of physical exercise, so as to release the pressure in a scientific way, adjust the psychological state, while relaxing the body, and finally achieve the purpose of learning and living happily.

2. Literature Review

Under the unified organization of the State General Administration of Sports, since 1996, China has gradually installed equipment for residents' fitness activities in urban communities and rural villages and towns. This project is known as the national fitness path project. In recent years, with the active promotion of the national fitness path, it has played a good role in promoting the development of urban community sports and fitness activities for urban residents. Huertas et al., in the evaluation of the awareness rate and use status of the national fitness path project, studied the three cities of *B*, *h,* and *C* by random sampling. The results show that the awareness rate of the path project in the urban community is high, the use of path equipment has a significant mood improvement effect, and the use of path equipment is safe [1]. Yao et al. applied the methods of literature reading, interview survey, questionnaire survey, and mathematical statistics in the article "Research on the Path Management System of National Fitness in C City under the Background of the Implementation of National Fitness Tiaoli." Through the investigation of the number of existing fitness paths in various districts of Changsha, the following conclusions are drawn.

The reason for the damage of fitness path is the lack of maintenance, equipment, management, and guidance personnel, which is still the main contradiction hindering the development of national fitness path project in Changsha [2]. Al Hajaj et al., in the article "Research on the Necessity of Constructing the Insurance System of China's National Fitness Path Project," focus on the national fitness path project, taking the fitness path management unit, exercise crowd, and fitness path equipment as the main body. This paper studies the degree to which sports insurance is needed in the field of national fitness path project. We put forward the concept of system construction and believe that the fitness path engineering insurance should keep up with the needs of the development of the times, establish the national health path engineering insurance system as soon as possible, timely and effectively solve the problems caused by sports injury accidents on the fitness path, and eliminate the worries of the majority of sports lovers [3]. The construction of the national fitness path project insurance system is a complex and systematic project, which requires us to think and study together, refer to the experience of foreign mass sports insurance system construction, and explore an insurance system suitable for the national fitness insurance system, so as to provide help for the development of the national fitness cause. In "Research on the Current Situation and Countermeasures of Rural Fitness Paths--Taking *Z* City as an example," Samuel and Rastogi investigated and studied the construction, use, and management of rural fitness paths by using the research methods of literature, questionnaire, expert interview, and mathematical statistics. It was found that the types of rural fitness paths are relatively perfect and the layout is relative, but there are different degrees of losses, which need to be repaired and updated [4]. Rural users are mainly middle-aged and elderly people, and most of them exercise in the morning and evening, but they lack professional fitness methods and means. The utilization rate of rural fitness path is not high, and there is a lack of corresponding fitness guidance. It is necessary to establish relevant supervision and evaluation system. See Figure 1.

Abu Hussain, in the current situation investigation and countermeasures analysis of sports for the disabled in the implementation of the national fitness plan, through the

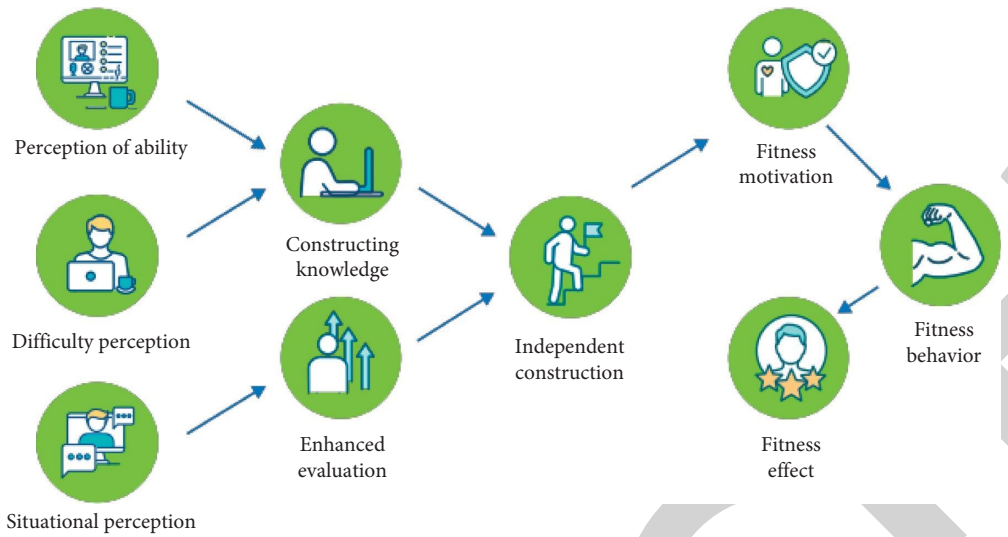

Figure 1: The role of national fitness behavior and effect.

methods of literature, questionnaire, interview, and mathematical statistics, conducted research from the aspects of the recognition of the disabled to the national fitness and the attitude, motivation, and way of participating in fitness activities [5]. The results show that the disabled hold a high positive attitude towards national fitness activities, but due to the constraints of internal and external factors, fitness has become an extravagant hope. Antonova used literature survey, questionnaire survey, GIS analysis, and social statistics as the main methods in the investigation and research on the current situation of the implementation of the national fitness project in *D* city. Through the investigation of residents and managers of community neighborhood committees in downtown *D* and based on the GIS platform of the national fitness project, the factors affecting the implementation of the national construction project are combined with the advantages of GIS technology to describe and analyze the status and effect of the implementation of the national fitness project in downtown *D* [6]. The results show that the number of women participating in fitness path exercise is more than that of men. There is little difference between the two. In terms of educational level, the number below junior middle school is the largest, and the number of participants is decreasing with the improvement of educational background. At present, the people participating in path fitness are middle-aged and elderly people. Most residents do not know the specific content of the national fitness project; that is, they are not yet aware of it. The layout of fitness facilities is an important factor affecting the implementation of the national fitness project, because population distribution and travel traffic have affected the utilization rate of fitness facilities. At present, the management of fitness path in each street community is insufficient, which directly leads to the occurrence of man-made destruction and theft. Traffic problems have also become the main influencing factors for community residents to participate in fitness activities. At present, the number and scale of community fitness paths in the central area of Dalian cannot meet the fitness needs of residents. See Figure 2.

From the perspective of the development of foreign basketball, although the process of basketball career in various countries continues to advance, there are great differences in social system, economy, politics, and development process in different countries, resulting in different development of competitive sports. The research on the development theory of campus basketball plays an important role in the competitive sports theory of various countries. With its continuous development, it has been enriched. Experts and scholars from various countries have made extensive and in-depth exploration on the development of campus basketball, made due contributions to the basketball competitive sports of various countries and constantly enriched the theoretical system of basketball.

Samuel and Rastogi pointed out in the article "Data Performance of Community Sports" that the core of the development power of modern campus basketball is the continuous injection of capital investment, and the capital investment channels should be diversified. A single national investment will lead to rigid operation mode, loss of flexibility, and reduced system operation efficiency [4]. The school should ensure the funds for basketball student athletes to participate in basketball activities, provide corresponding material rewards, ensure the activity participation rate of student athletes, and vigorously improve the mass base of school basketball, so as to continuously promote the benign development of campus basketball. Guseman et al. in the article "Ideal Tool for the Connection between Colleges and Universities and the Outside: Inter School Sports," believed that the university has an important role in students' personal identity. Regular sports participation in high-level schools outside will also be an important tool for the university to obtain support [7]. Especially involving the coordinated development of external enrollment, alumni relations, community affairs, and government relations, the participation of college sports can promote the important development of various systems.

At the competitive level, Lan et al. pointed out in the research on the relative age effect of France young basketball

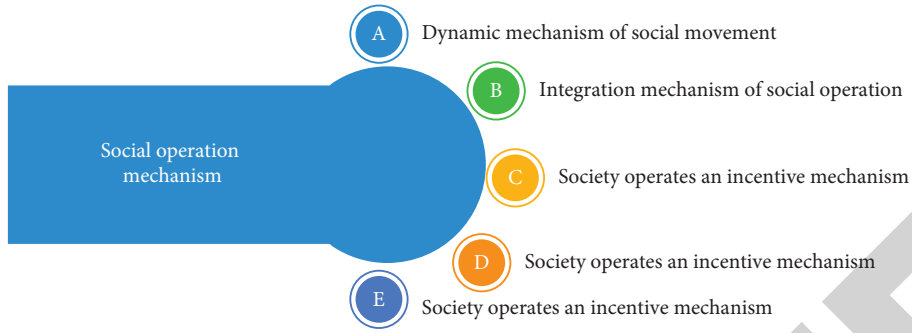

Figure 2: Social movement mechanism system.

players that for the long-term development of basketball, teenagers are an important part of campus basketball. For basketball, the cultivation of competitive talents needs to be distinguished at different ages, and about 7–12 years old is more suitable for the cultivation and development of competitive reserve talents [8].

Arede believes that whether youth campus sports can reach the ideal state depends on the will of the rulers and the position of sports in the national economy and national life at different time stages [9]. Therefore, its driving force mainly comes from the preference of the system, the judgment of policy makers, and the national sports values. The dynamic characteristics of all other cultural entities are similar in youth campus sports. The dynamic characteristics of youth campus sports have class hegemony, ideological deprivation, and the compulsion of operation principles. These characteristics have become the dynamic development symbol of youth sports development to a certain extent, but they are also the magic cube that restricts the development of youth sports. Therefore, the reform of youth campus sports power must release power, return government to the people, and develop moderately and freely. Pham and Hwang believes that the sports motivation and career performance of immigrant young football players are correlated with their foreign cultural adaptation. Athletes with strong foreign cultural adaptation and high cultural identity have a higher motivation foundation in sports, their continuous sports career is longer, and they may create better sports performance in their future sports career, so they have a higher probability of becoming excellent athletes [10]. Guseman et al. believe that among the many dynamic mechanism elements of teenagers' participation in sports, social support elements, family support elements, peer support elements, friend support elements, and coach support elements are very important [7]. The continuous and lasting input of these elements is an important weight for them to participate in the sport and achieve excellent results. Therefore, building a good social psychological support channel system to realize smooth and continuous psychological support input is the lubricant and booster to promote teenagers to participate in sports. See Figure 3.

Looking at the above research, although the relevant theoretical research results are rich and different perspectives, which reveals part of the reasons for the decline of the overall strength of competitive basketball to a certain extent, there are still some deficiencies in the following aspects. (1) There are many macro overall theories, and the research on micro operability is weak. Many studies tend to analyze the reasons for the weakness of the driving force of Chinese campus basketball from the macro system field, which makes the research like a castle in the air, with lack of foundation and too macro and micro operability, so that the research validity is weakened, and the popularization and effectiveness of the research results are not strong. (2) The transitional transplantation of foreign theories does not accord with the reality of China's system. Most of the existing studies cite the successful experience of developing teenagers' basketball into a powerful country. Although the development of teenagers' campus basketball in various countries has certain common laws to a certain extent, the process of education and social development in different countries has different characteristics [11]. China is in a period of dual track development. The dynamic factors of campus basketball development are complex and changeable. It is not embedded in the reality of China's system, which is not enough to reveal the most essential aspect of the dynamic dilemma of Chinese campus youth basketball development. Moreover, the simple study of the successful side and the lack of dialectical consideration make the study of metaphysics. (3) The theory is too fragmented and not systematic. Most of the existing studies start from a single dynamic factor of teenagers' campus basketball, such as social factor, institutional factor, and school factor. Although the research of these factors can reveal some superficial reasons for the confusion of teenagers' campus basketball development to a certain extent, it cannot solve the deep-seated contradictions in the development of Chinese campus basketball dynamic, so that the theory appears scattered, fragmented, and not systematic. (4) There are theoretical research gaps. The existing research on the development power of Chinese campus basketball is rare, and there is no in-depth research on the dynamic mechanism, so there is a large research space in this field.

3. Method

3.1. Based on Chan Algorithm. TOA/TDOA positioning model is one of the most commonly used high-precision positioning models. A certain signal (usually electromagnetic wave signal) is transmitted through the base station.

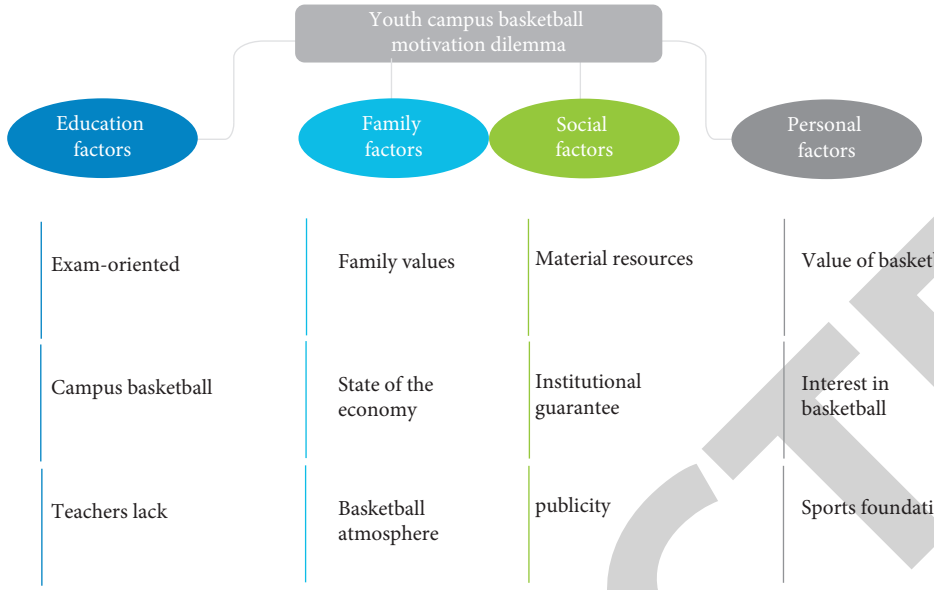

Figure 3: Youth campus basketball power difficulty.

When receiving the signal, the arrival time or arrival time difference of the signal is obtained through the time delay estimation algorithm, and then the distance from the target is obtained by multiplying the propagation speed of the signal. If the actual measured ti, $i = 1,2,\ldots,N$ obtained after time delay estimation is assumed, the distance measured value is $\delta i = c\text{ti}$, $i = 1,2,\ldots,N$, where $c = 299792458\ \text{m/s}$ represents the speed of light [3].

Thus, the TOA positioning model of a single target can be obtained by establishing the distance equations between the base station and the target. Let Ri represent the measured distance between the i-th positioning base station and the positioning target, as shown in formula:

$$R_i = \delta_i = \sqrt{(x_i - x_0)^2 + (y_i - y_0)^2}, \quad i = 1, 2, \ldots, N. \tag{1}$$

The position of the target to be located is $s0 = (x0, y0)$, as shown in formula:

$$R_i^2 = (x_i - x_0)^2 + (y_i - y_0)^2 = K_i - 2x_i x_0 - 2y_i y_0 + x_0^2 + y_0^2, \tag{2}$$

where $Ki = xi2 + yi2$. Due to the existence of square term, the above formula becomes a nonlinear equation [4]. By making $R02 = x02 + y02$, the linear equation is as follows:

$$R_i^2 - K_i = -2x_i x_0 - 2y_i y_0 + R_0. \tag{3}$$

Although $x0$, $y0$, and $R0$ are not independent of each other, the core idea of Chan algorithm is to adopt the two-step weighted least squares method (WLS). First assume that the two intermediate variables are independent of each other, linearize the nonlinear equation, use the weighted least squares to obtain their estimated value, and then consider the relationship between them, so that the target position can be solved. Thus,

$$h = \begin{bmatrix} R_1^2 - K_1 \\ R_2^2 - K_2 \\ \vdots \\ R_N^2 - K_N \end{bmatrix},$$

$$G_a = \begin{bmatrix} -2x_1 & -2y_1 & 1 \\ -2x_2 & -2y_2 & 1 \\ \vdots & \ddots & \vdots \\ -2x_N & -2y_N & 1 \end{bmatrix}, \tag{4}$$

$$Z_a = \begin{bmatrix} x \\ y \\ R \end{bmatrix},$$

where x, y, and R are the estimated values of $x0$, $y0$, and $R0$, respectively, as shown in formula:

$$R = x^2 + y^2. \tag{5}$$

The error vector of noise is defined as

$$\psi = h - G_a Z_a. \tag{6}$$

Assuming that the system has a high signal-to-noise ratio, it can be considered that the measured values are Gaussian data; that is, they obey the approximate normal distribution. Since the noise vector n also obeys the approximate normal distribution, the vector statistical relationship about the error can be obtained as follows: as shown in formula:

$$\psi = 2cBn + c^2 n \cdot n, \tag{7}$$

where $B = \text{diag}\{r1, r2, \ldots, rN\}$, $r1, r2, \ldots, rN$ is the real distance between the positioning base station I and the positioning target. So BT = B, as shown in formula

$$R_i = r_i + cn_i. \tag{8}$$

Since cni $\ll r$ holds in the actual application scenario, the tail term of (7) can be ignored and the error vector can be changed into a random vector [12]. The error vector can be written as follows:

$$\varphi = E\left(\psi\psi^T\right) \approx 4c^2BQB, \tag{9}$$

where $Q = \text{diag}\{\sigma 12, \sigma 22, \ldots, \sigma N2\}$ is the covariance matrix of the measured value. Assuming that each quantity in Za is independent of each other, it is obtained by weighted least squares, as shown in formula

$$Z_a = \left(G_a^T\varphi^{-1}G_a\right)^{-1}G_a^T\varphi^{-1}h. \tag{10}$$

Since there is the distance between the positioning target and the positioning base station in B, ϕ is an unknown quantity. Next, we have the problem of calculating ϕ. If the positioning target is far away from the positioning base station, $R1$ and Ri can be approximately considered to be equal. Therefore, when estimating ψ, the approximate replacement B of R1 I can be used, and $B = \text{diag}\{r1, r2, \ldots, rN\}$ is the true distance between the median base station I and the positioning target. Therefore, the approximate reduction of (10) can be as follows:

$$Z_a \approx \left(G_a^TQ^{-1}G_a\right)^{-1}G_a^TQ^{-1}h. \tag{11}$$

If the positioning target is close to the positioning base station, an estimation solution can also be obtained by using the above formula. The approximate "real" distance between the positioning base station and the positioning target can be calculated by using the initial estimation solution and the coordinates of the positioning base station, so as to obtain the B matrix and then use (10) to obtain the first weighted least squares result [13]. Since the relationship between x, y, and R is not considered in the first weighted least squares, it will be considered in the second weighted least squares, so as to achieve higher positioning accuracy. Using the first estimated value, a set of error equations is constructed for the second estimation, as shown in formula

$$\begin{cases} Z_1 = x_0 + e_1, \\ Z_2 = x_0 + e_2, \\ Z_3 = x_0 + e_3, \end{cases} \tag{12}$$

where Zi represents the i-th component in Za and ei represents the estimation error of Za. Define a new error vector as shown in formula:

$$\psi' = h' - G'z', \tag{13}$$

where

$$\begin{aligned} h' &= \begin{bmatrix} (Z_1 - X_1)^2 \\ (Z_2 - Y_2)^2 \\ Z_3^2 \end{bmatrix}, \\ G' &= \begin{bmatrix} 1 & 0 \\ 0 & 1 \\ 1 & 1 \end{bmatrix}, \\ z' &= \begin{bmatrix} (x_0 - X_1)^2 \\ (y_0 - Y_1)^2 \end{bmatrix}, \end{aligned} \tag{14}$$

where $S = (X1, Y1)$ represents the known coordinates of base station 1, and the covariance matrix of ψ' can be expressed as

$$\varphi' = E\left(\psi'\psi'^T\right) = 4B'\text{Cov}(Z)B'. \tag{15}$$

We have

$$\begin{aligned} B' &= \text{diag}\{x_0 - X_1, y_0 - Y_1, R_0\}, \\ \text{Cov}(Z) &= E\left(ee^T\right). \end{aligned} \tag{16}$$

Similarly, the previous method is used for estimation, and the result is as shown in formula

$$Z' = \left(G'^T\varphi'^{-1}G'\right)^{-1}G'^T\varphi'h'. \tag{17}$$

Finally, the final estimated position is obtained $Z = \pm Z' + S_0$.

It can be seen from Chan algorithm that when the target is close to each base station, the first estimation also needs an estimated initial value to solve the initial solution estimation matrix. In real life, such as youth basketball scene, such a situation is very common [14].

3.2. Multivariate Taylor Algorithm. There are N base stations and M targets to be tested in the site. Because the traditional Taylor series expansion algorithm does not take into account the measured distance between the targets to be measured, it will lose some useful information, resulting in the loss of positioning accuracy.

The original Taylor algorithm only considers the distance relationship between the target to be tested and the base station, that is,

$$\begin{cases} R_{ij} = \sqrt{\left(x_1 - X_j\right)^2 + \left(y_i - Y_i\right)^2}, \quad i < j, \\ \qquad\qquad \vdots \qquad\qquad , \\ R_{MN} = \sqrt{\left(x_M - X_N\right)^2 + \left(y_M - Y_N\right)^2}, \end{cases} \tag{18}$$

where Ri,j represents the measured distance between the target to be measured and the known base station [15]. In order to make the positioning more accurate, Taylor algorithm based on multivariate variables is proposed, and the measured distance between the targets to be measured is added to establish the equations, as shown in formula:

$$\begin{cases} R'_{ij} = \sqrt{(x_i - x_j)^2 + (y_i - y_j)^2}, \quad i < j, \\ \vdots \\ R'_{M-1,M} = \sqrt{(x_{M-1} - x_M)^2 + (y_{M-1} - y_M)^2}, \end{cases} \tag{19}$$

where (xi, yi) represents the coordinate value of the target to be measured, (Xi, Yi) represents the coordinate value of the known base station, $R'i,j$ represents the distance measurement value in the target to be measured, and Ri,j represents the distance measurement value between the target to be measured and the known base station.

After finishing, the positioning model is obtained, as shown in formula

$$h = G\Delta + E. \tag{20}$$

Using the weighted least squares (WLS) method for (20), the estimation of Δ can be obtained as shown in formula (21).

Since the measured value may have delay errors caused by NLOS or multipath and the post-Taylor series expansion algorithm is sensitive to the initial value, it is necessary to discard the error data after obtaining the initial estimated value and before starting the Taylor algorithm [16]. See Figure 4.

A and B are base stations, T is the real target, e is the expectation of measurement error, and the equation of the circle is

$$\begin{aligned} R_{iA} &= \sqrt{(x_i - X_A)^2 + (y_i - Y_A)^2}, \\ R_{i,B} &= \sqrt{(x_i - X_B)^2 + (y_i - Y_B)^2}. \end{aligned} \tag{21}$$

In theory, the distance measurement values of A and B are between the large circle radius and the small circle radius. Since an initial value has been obtained according to the Chan algorithm, it is substituted into the initial value to calculate the error of each base station from the initial value and calculate the cumulative distribution function to remove the error of more than 90%, which can not only improve the performance of a part, but also screen out some data [17].

3.3. Algorithm Flow. As shown in Figure 5, algorithm steps are as follows:

(1) Randomly generate the initial solution ω and calculate the objective function $J(W)$. The current number of iterations $k = 0$, and the current temperature $t0 = T_{\max}$, $r \in (0, 1)$ is used to control the cooling annealing.

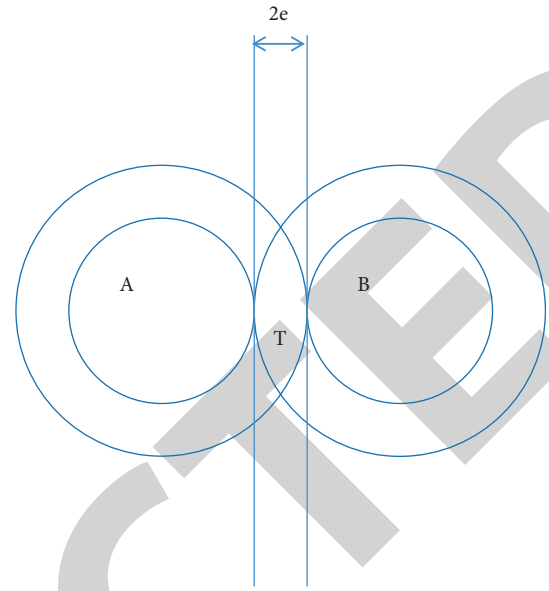

Figure 4: Range of theoretical measured values.

(2) The disturbance generates a new solution ω' and calculates the objective function $J(\omega')$.

(3) Calculate the increment $\Delta J = J(\omega') — J(\omega)$.

(4) If $\Delta J < 0$, accept the new solution $\omega \leftarrow \omega'$, $k \leftarrow k + 1$ and reduce the temperature $tk = \text{rtk—1}$; otherwise, accept the new solution according to the Metropolis criterion; that is, accept the new solution with the probability $e–\Delta J/\text{tk}$.

(5) Judge whether the number of iterations has been reached. If not, continue with step 2.

(6) Judge whether the termination conditions are met. The termination conditions are that the termination temperature is reached and the temperature is full [18].

If sufficient, output the final result. If not, reset the number of iterations $k = 0$ and reduce the initial temperature $t0 = \text{rtmax}$.

(7) Get the initial value of coordinate estimation (x', y').

(8) Use the initial value to calculate the matrix B in Chan algorithm, then substitute into (9) to calculate ϕ and then use (10) to calculate the first least squares solution Za.

(9) Since the relationship between x, y, and R is not considered in the first least squares, it will be considered in the second least squares, so as to achieve higher positioning accuracy. Use (13)–(16) to find $Z' = (G'T\varphi'\text{-}1G')\text{-}1G'T\varphi'h'$.

(10) Get the final estimated position. $Zi = \pm Zi' + S_0$.

(11) Calculate whether there is $|\,|\,Ri, B—Ri, A\,|—\text{RAB}\,| > 4\sigma 2$ through the measured value. If there is, round off the large circle equation.

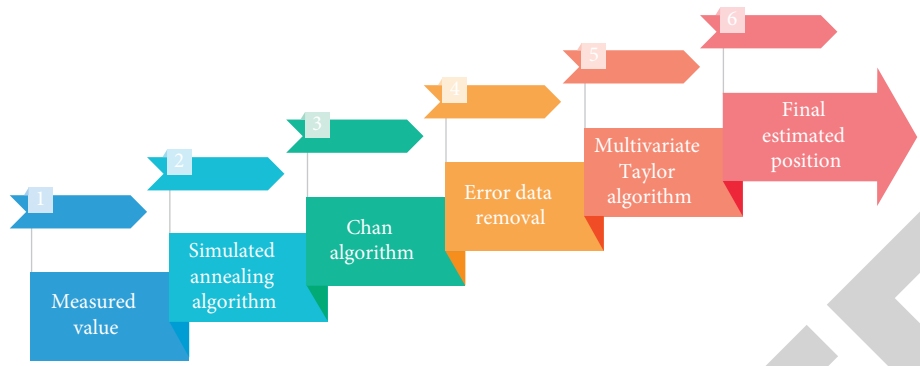

Figure 5: Algorithm flow chart.

(12) Carry out Taylor series expansion at the initial estimated values ($x01$, $y01$),. . .,($x0M$, $y0M$) of the target to be measured, remove the components above the second order, and obtain the equations. After finishing, we get $h = G\Delta + E$.

(13) Using the weighted least square method (WLS), the estimation of $^{\Delta}$ can be obtained: $^{\Delta} = (\text{GTQ-1}G)\text{-}1\text{GTQ-1}h$.

(14) Repeat the calculation for many times until $^{\Delta}xi$ and $^{\Delta}yi$ are small enough to meet a set threshold ε。

(15) Get the final result ($x1$, $y1$),. . .,(xM, yM).

It is assumed that the distance measurement error follows the exponential distribution of 10 m and the variance is $\delta 2 = 1$. See Figure 6.

Under other unchanged conditions, analyze the relationship between the variance of error and positioning accuracy: see Figure 7.

When $\delta 2 = 0.5$, repeat the test for 50 times to test the relationship between the positioning error distribution function and variance, as shown in Figure 8.

When the real target is at (60, 65) points, run the algorithm 20 times to obtain the location point distribution. See Figure 9.

When the distance measurement error follows the standard normal distribution with variance $\delta 2 = 1$: see Figure 10.

Increase the number of base stations to check the change of algorithm accuracy: see Figure 11.

Through the simulation analysis, it can be seen that the algorithm proposed in this paper has higher positioning accuracy when the channel conditions are not good enough and there are few base stations, but there are multiple targets to be measured. It is widely applicable in the real scene [19].

4. Experimental Results and Discussion

4.1. Experimental Results. In this paper, the recognition results and prediction results of the target detection system for the cultivation of the ring tone of juvenile basketball in the national fitness environment are presented. The accuracy of prediction refers to the ratio of predicting an athlete's movement to the real value (ground truth). It can be seen that the recognition and prediction accuracy of shooting

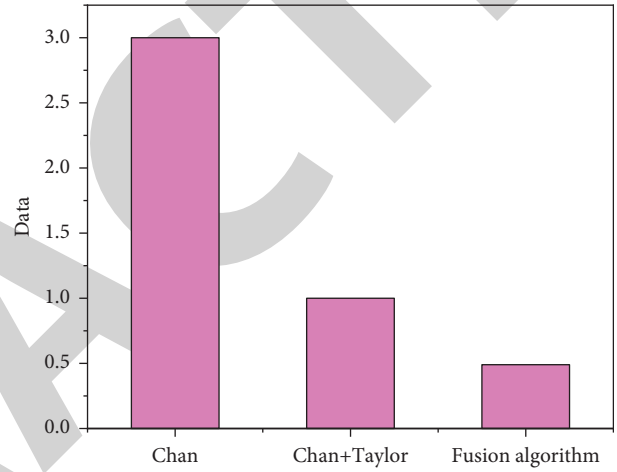

Figure 6: Error analysis of different algorithms.

action by this method is more than 85%. However, the accuracy of rebounding and passing recognition and prediction is low. The recognition accuracy and prediction accuracy of the test set are slightly lower than that of the effective set, which shows that the performance of the target detection system model in this paper can be further improved through more significant training examples [20].

According to the specific basketball movement, the corresponding actions in the target detection system-rebounding, shooting, and passing—are reconstructed based on the key points of human body. The method proposed in this paper can help basketball players better adapt to various training methods and tactical training to a certain extent and quickly improve their performance. Linear regression analysis is carried out on the automatic scoring of the target detection system in rebounding, shooting, passing, and fine motion evaluation (the algorithm proposed in this paper) and the traditional manual scoring to study their correlation. Each point in the figure represents the result of a test, the abscissa represents the evaluation score obtained by the automatic evaluation algorithm, and the ordinate represents the real value evaluated by the traditional training method. It can be seen that the score of the automatic evaluation algorithm is linear with that of the traditional training method. Compared with the traditional training method, the fine motion obtained by the target detection system in this

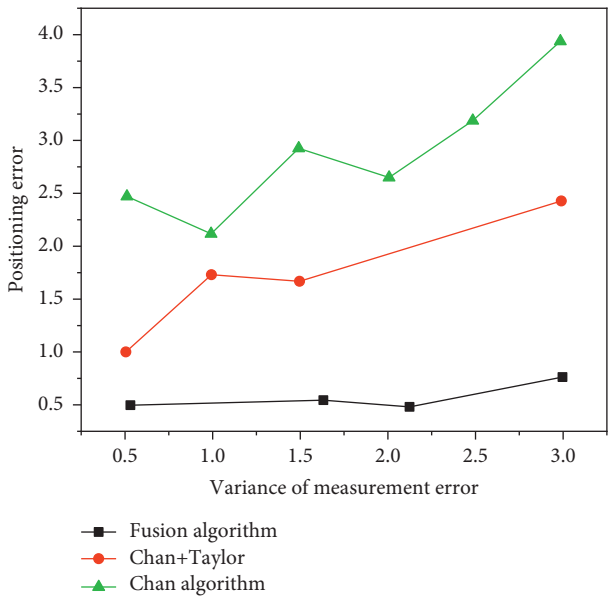

Figure 7: Comparison of positioning errors of different algorithms.

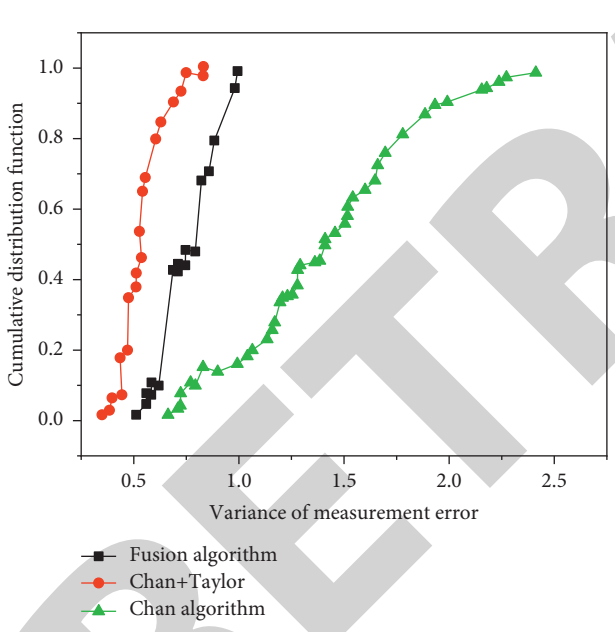

Figure 8: Relationship between cumulative distribution and measurement error variance.

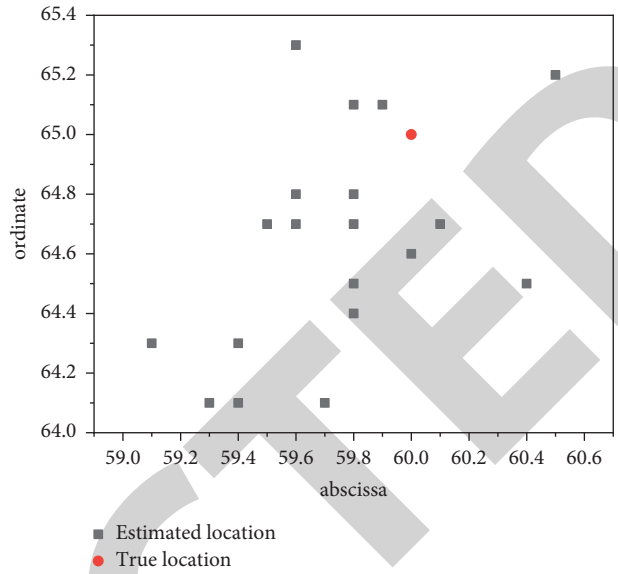

Figure 9: Location point distribution of algorithm.

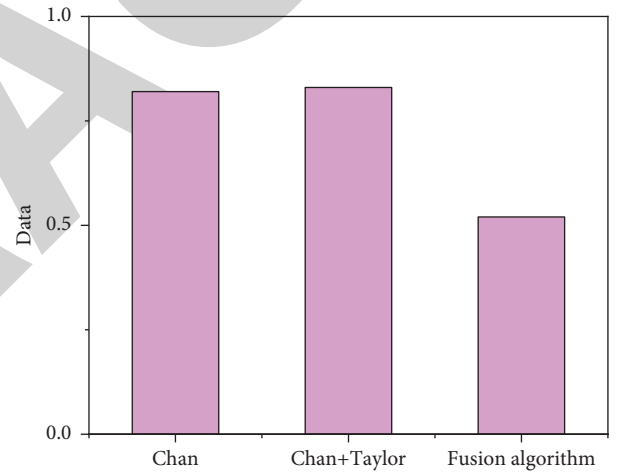

Figure 10: Error analysis of different algorithms.

paper has certain advantages and can bring better teaching effect. This combination of explanation and demonstration can greatly stimulate athletes' senses and make them have a deeper memory and a deeper understanding of technology. See Figures 12–16.

In addition, the traditional model generally cannot recover some arm posture features of basketball, such as severe occlusion, high moving speed, sudden direction change, and a large number of physical confrontation between players. These features challenge the accuracy of the detection efficiency of individual players and teams. Therefore, after detecting the players, the target detection and fine positioning method proposed in this paper cuts the area where the detected players are located and divides five motion channels through the statistics of arm posture characteristics to get the characteristics of arm posture distribution, so as to identify the subordinate relationship of basketball playing method and obtain a more fine detection and fine positioning method [21]. Because the prior conditions of unified arm posture are obtained, this method can classify the subordinate relationship of basketball playing without additional annotation during the construction of data set and can more accurately identify the technical skills of basketball far mobilization. Compared with the detection accuracy in the models of integrated channel features (ICF), fast recursive convolution neural network (RCNN), and single shot multibox detector (SSD 512), it can be seen that the accuracy of this method is 95.6% in all algorithms, which shows that the target detection system designed in this paper is effective. See Figure 17.

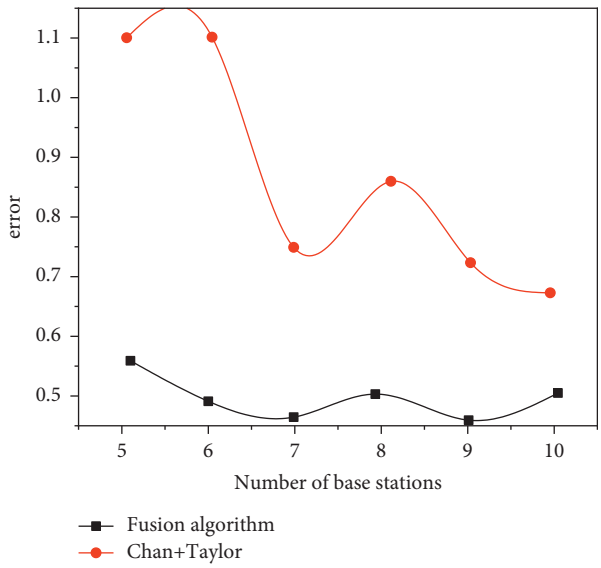

Figure 11: Relationship between the number of base stations and positioning error.

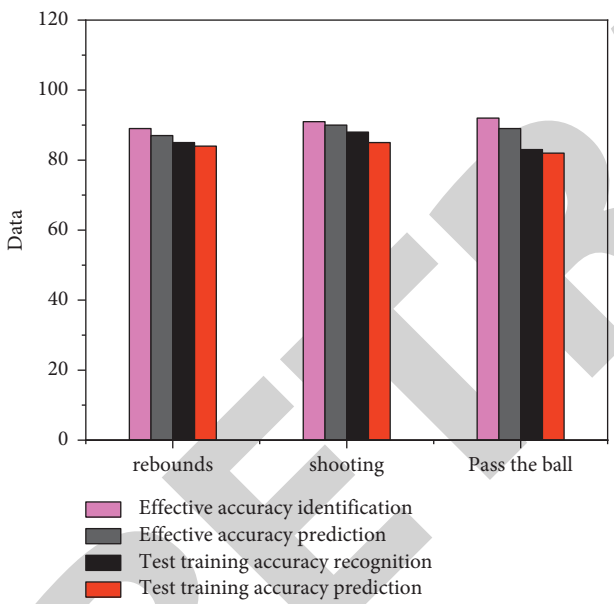

Figure 12: Comparison between recognition results and prediction results of coordination of juvenile basketball players.

4.2. Using Physical Exercise to Improve the Mental Health of Adolescents

(1) *The Cultivation of Emotional Cognition and Personality through Physical Exercise*

Personality refers to the internal tendency and psychological characteristics of an individual's behavior in social adaptation to people, things, and themselves. Psychosomatic organization, wholeness, stability, uniqueness, and sociality are the basic characteristics of personality. Physical exercise can allow young people to analyze the differences between themselves and others in such a so-called

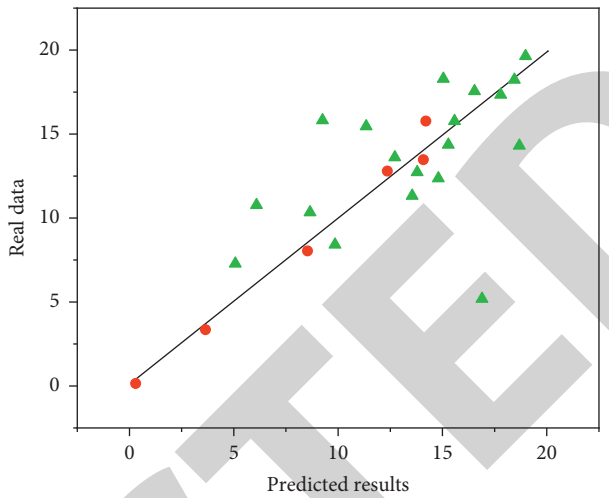

Figure 13: Backboard prediction results.

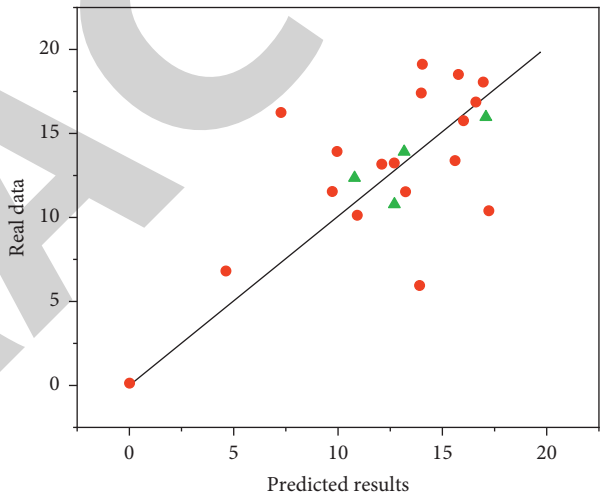

Figure 14: Shooting prediction results.

social adaptation process, learn from the strong in terms of ability, temperament, character, needs, etc., and constantly improve their shortcomings and allow themselves to grow. It is more comprehensive, and at the same time, it can retain its own personality characteristics and finally form the so-called personality charm. In this process, there will always be people-to-people communication, whether it is friendly communication or communication with other emotions, which can enrich the personal emotions and self-cognition level of teenagers. Knowledge decline is slowed down, individuals develop a more active way of releasing stress, and desired personality traits are maintained. Only then can it be called the complete cultivation of a person.

(2) *The Cultivation of Willpower through Physical Exercise*

Willpower refers to the quality of a person who consciously determines the purpose, controls and adjusts his actions according to the purpose,

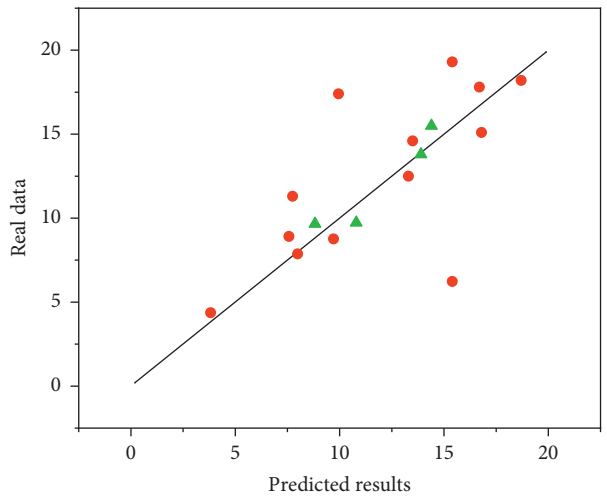

Figure 15: Pass prediction results.

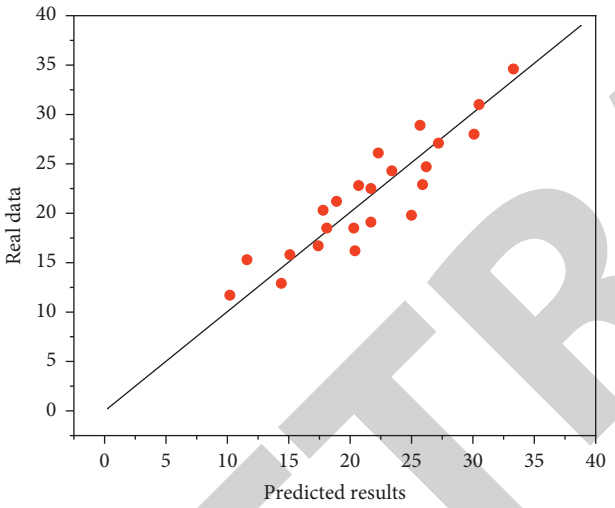

Figure 16: Fine motion prediction results.

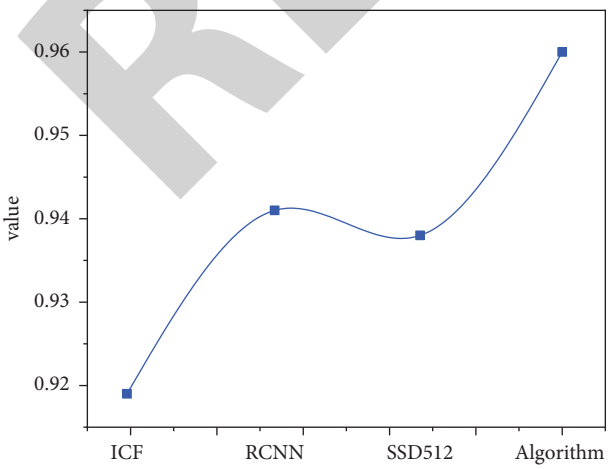

Figure 17: Comparison between the method in this paper and other methods.

overcomes various difficulties, and thus achieves the purpose. When teens are adept at harnessing this beneficial force, determination develops. And the determination of a person shows that willpower is at work. Faced with the huge pressure of learning and social life in today's society, young people need to cultivate a strong will quality, which is also one of their essential qualities on the road to success. There are many situations in physical exercise that can cultivate good willpower. For example, when the score is behind, you should make tactical and technical changes in time to try to reverse the situation and rewrite the score; in the case of minor injuries, adjust your skills reasonably and appropriately. The movement and the way of exertion can complete the whole physical exercise process.

5. Conclusion

This paper presents a method to develop the ring tone of juvenile basketball in the national fitness environment. First of all, after analysis and discussion, it is clear that physical exercise has a positive effect on the mental health of young people, can effectively regulate the emotions of young students, let the body get rid of the subhealth state as much as possible, and get physical and mental benefits. Improve, so that you can better devote yourself to high-intensity and high-load learning activities. From another aspect, it can cultivate the self-confidence of young people in social activities, dare to communicate with others actively and understand the importance of teamwork. The specific content of this method is based on the Chan algorithm. When the target is close to each base station, the first estimation also needs an estimated initial value to solve the initial solution matrix. In real life, such as youth basketball scene, this situation is very common, and under the simulation analysis of multivariate Taylor algorithm, the proposed algorithm has higher positioning accuracy when the channel conditions are not good enough and there are few base stations, but there are multiple targets to be measured, so it has wide applicability in real scene. To prove that this method can solve the problem of cultivating the ring tone of juvenile basketball in the national fitness environment, the specific performance is as follows: among all the algorithms for cultivating the ring tone of juvenile basketball, the accuracy rate is the highest, reaching 95.6%. In the future national fitness environment, it will be more and more important to develop the environmental tonality of juvenile basketball. It is believed that Chan algorithm and multivariate Taylor algorithm will be widely used in different scenarios in the near future.

Data Availability

The labeled data set used to support the findings of this study is available from the corresponding author upon request.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

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Retraction

Retracted: The Integration of Legal Education and Mental Health Education of College Students in the Contemporary Network Environment Facing the Cultivation of Civic Awareness

Journal of Environmental and Public Health

Received 26 September 2023; Accepted 26 September 2023; Published 27 September 2023

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) Peer-review manipulation

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.

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.

References

[1] Y. Li, C. Bao, and M. Liu, "The Integration of Legal Education and Mental Health Education of College Students in the Contemporary Network Environment Facing the Cultivation of Civic Awareness," *Journal of Environmental and Public Health*, vol. 2022, Article ID 4858156, 9 pages, 2022.

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Research Article

The Integration of Legal Education and Mental Health Education of College Students in the Contemporary Network Environment Facing the Cultivation of Civic Awareness

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Since the world entered the era of network information, the influence of the Internet has been expanding day by day, and today's college students are deeply affected by the network environment, which has also brought unprecedented challenges to the moral education work of colleges and universities. The rule of law education for college students is a key point for the comprehensive implementation of the strategy of governing the country by law. How to enhance the effectiveness and recognition of the rule of law education for college students has become an important task of higher education. Therefore, strengthening the legal education of college students is not only an inevitable choice to fully implement the rule of law but also a realistic requirement to improve the level of higher education and realize the all-round development of college students. College students' mental health education is an important part of the talent training system of colleges and universities, and in-depth exploration of the ideological and political laws of college students' mental health education courses is an inevitable requirement for implementing the fundamental task of Lide Shuren. College students' mental health education courses must be integrated into the ideological and political concepts of the curriculum, reflect the political orientation of ideological and political work, embody the law of educating people with morality as the first, and embody the practical purpose of psychology to pay attention to personality improvement. It is necessary to optimize the content of education and teaching, excavate the elements of ideological politics in the curriculum, enrich the resources of ideological politics in the curriculum, and explore a new way of reforming the ideological and political education curriculum for college students from the aspects of deeply planting family and national feelings, enhancing political identity, strengthening cultural self-confidence, cultivating Chinese temperament, clarifying the meaning of life, strengthening mission responsibility, enhancing civic awareness, and developing law-abiding habits. Strictly regulate the behavior of contemporary college students in the online environment, give full play to the role of legal education, and reduce the incidence of online incidents such as online fraud and cyber violence. This paper puts forward some problems in the current legal education of college students in China and points out the root causes of these problems. Methods for structural reform and advanced cultural construction based on social development are proposed. From a strategic point of view, it is believed that only by managing the reform of legal education and cultivating civic awareness can we completely solve various contradictions and problems among college students in the network environment and pave the way for the development of college students.

1. Introduction

Since the Fourth Plenary Session of the 18th Central Committee, under the background of vigorously promoting the construction of a country under the rule of law, my country has proposed more than 190 construction and reform tasks, and education is related to the future and development of the country. Construction is closely related. Colleges and universities, as important centers for cultivating talents, the rule of law education for college students is an extremely important part of the work of national rule of law education. The development of the rule of law education for college students is of great significance to the establishment of college students' legal thought, the improvement of legal awareness, the construction of a rule-of-law society, and the advancement of modernization [1]. Therefore, the ideological

and political construction of college students' mental health education courses must follow the requirements of ideological and political work; highlight political orientation; unremittingly use Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era to cast the soul and educate people; guide students to understand the world conditions, the national conditions, the party, and the people; enhance the "four consciousnesses"; strengthen the "four self-confidences"; and achieve "two safeguards." If the mental health education curriculum abandons the political attribute, it will deviate from the requirements of the ideological and political construction of the curriculum of "guarding a good canal and planting a good responsibility field," and it is difficult to form the effect of peering in the same direction and educating people in a coordinated manner.

The 18th National Congress of the Communist Party of China put forward the strategy of comprehensively promoting the rule of law. To comprehensively promote the rule of law, it is necessary to continuously improve the social and legal environment. To comprehensively promote the rule of law is to promote the spirit of the rule of law in the whole society, publicize the concept of the rule of law, develop the theory of the rule of law, apply the thinking of the rule of law, innovate the way of the rule of law, and make the spirit of the rule of law and the belief in the supremacy of the law become the common belief of Chinese citizens. This special group of college students is the backbone of future social construction and will have a profound impact on the process of legalization in our country. Because college students have the characteristics of plasticity and strong educability, it is determined that they will be the focus of civic education on the rule of law. Therefore, college students are bound to take the lead in becoming citizens under the rule of law [2, 3]. For a long time, the university legal education mainly adopts the "pay attention to classroom education, supplemented by practice" teaching mode; this mode is too eager although it can guide college students to quickly master the basic legal system and legal knowledge; however, the process of legal system attaches great importance to the teaching of knowledge theory, but ignores the teaching of concept, the construction of teachers, the depth of teaching, the practical activities, and classroom teaching, which leads to the unsatisfactory effect of legal education and makes it face greater difficulties.

Based on the above-discussed problems in legal education in colleges and universities, this paper investigates the status quo of legal education in college students through literature research and finds the main problems at present in the investigation process. In view of these problems, this paper puts forward corresponding solutions. Therefore, this paper is of great reference significance to grasp the historical responsibility and opportunity of the era of legal education in the new era and to construct and comprehensively promote the legal education and training system adapted to the rule of law.

2. Relevant Theoretical Basis

2.1. The Concept and Characteristics of Legal Education for College Students. Legal education is an important task in ideological and political education in the new period, but also with the development of the times, now this kind of security education has become a key point in the practice of ideological education and political work, and it is necessary to stabilize the situation and go deep into the popularization of the law, which is quite critical for college students, requiring students to carry out the development of a political and economic environment, to educate young descendants with the basic knowledge of socialist democracy and law, to let young people receive this kind of training and some education, and to strengthen the concept of the legal system. High school in the United States refers to all institutions engaged in higher education after the middle school stage, including all colleges and universities including vocational and technical colleges, junior colleges, and community colleges. Among them, junior colleges and community colleges have the nature of postsecondary education, which makes more Americans think that they are transitioning from secondary education to higher education, rather than pure colleges and universities. Therefore, the concept of "student" in American colleges and universities is relatively broad, and in a sense, it is more closely related to society. In my country, it is quite different. According to the "Higher Education Law of the People's Republic of China," my country's higher education institutions generally refer to universities, independent colleges, and vocational colleges, including higher vocational schools and adult colleges. What is a "college student"? According to Article 37 of the "Measures for Handling Student Injury Accidents" by the Ministry of Education of the People's Republic of China, college students refer to those educated full-time in colleges and universities, including junior college students, undergraduate students, master students, and doctoral students. From the analysis of the scope of college students, college students in our country belong to a relatively closed educated group [4].

2.2. The Necessity of Legal Education for College Students. College students are the main group on the Internet, and the quality of the network environment will directly affect the mental health of college students and the formation of values and will also directly affect the reconstruction of the educational environment. Therefore, it is of great significance to strengthen the legal education of college students [5]. Network regulation should be done under the auspices of the government. Some students blindly pursue the realization of personal values, and the behavioral requirements of social life are generally not measured by whether the behavior is illegal. Thinking that the law is an after-the-fact remedy, as long as there is no accident, there is no need to learn legal knowledge, so the awareness of legal warning education is insufficient. Affected by the bad social atmosphere, students lack awareness of rules and disapprove of their own illegal behaviors. To deal with disputes and resolve conflicts, they will not hesitate to take risks and try the law by themselves [6–8].

2.3. The Social Value Theory Included in the Rule of Law Education for College Students. In a certain sense, the legal education of college students determines the degree and level of socialization of college students and determines whether the transition from students, builders, and successors can be smoothly realized; in today's society of advocating the legal system and pursuing civilization, the level of one's awareness of democracy and the legal system and the rigor of the concept of discipline determine the degree of realization of personal and social values. Education in the concept of the legal system is an important way to enhance college students' awareness of democracy and the legal system and their self-consciousness of discipline, and it is necessary to grasp it in a down-to-earth, well-grasped, and thorough manner, so as to help enhance the civilization of the whole society. Social value refers to the contributions and responsibilities that individuals make to meet the material and spiritual needs of society or others through their own and self-practice activities. Personal value refers to the discovery and creation of an individual or society in production and life to meet individual needs, which is the contribution of individual self-development and society to individual development. It includes the personal value of the individual and the personal value of the society and contributes to the freedom of different subjects to the individual. The social value and the personal value of the legal education of college students are related to each other, promote each other, and distinguish each other. Therefore, the relationship between the two is dialectically unified. Individuals constitute society, exist in society, and create society. The ontological basis of social history is people, and society is the totality of people who are interconnected based on common material production activities [8]. A society cannot be called a society without the reality of individuals and their activities, let alone development. Only through the education of the rule of law can we guide the thoughts and behaviors of individual college students, shape their legal personalities, stimulate their spirit of the rule of law, promote the improvement of college students' legal awareness and quality of the rule of law, and create dynamic undertakers and promoters for the implementation of the strategy of governing the country by law. The legal education of college students helps students develop legal awareness and the quality of the rule of law. This is also the personal value embodied by the legal education of college students. Only through the education of the rule of law in colleges and universities can the legal consciousness be internalized in the students' hearts, and the students' personal legal consciousness and quality of the rule of law can only be externalized through practical activities in society. Otherwise, the personal value of the legal education of college students is that only potential possible values exist. That is to say, only when the educated turn the legal awareness cultivated by the education of the rule of law into their own conscious actions to act on the society, promote the all-round development of the society, and thus realize the social value of the education of the rule of law, the personal value can be truly realized. Therefore, the social value and the personal value of legal education for college students are related to each other, promote each other, develop together, and are different from each other. The two are dialectically unified [9].

The social value and individual value of college students' legal education are interrelated, promoting, and developing together, which are different. In the network environment, the legal system education should be close to The Times characteristics, by building a legal system based on artificial intelligence network education platform, using data mining technology, ensure integration of the rule of law, case law education database, the use of experts and knowledge map to improve college students' legal quality, the overall system framework is shown in Figure 1.

2.4. Follow the Principle of Mental Health Education and Pay Attention to the Perfection of Personality. Psychology is the study of psychological phenomena, the exploration of psychological problems, and the revelation of the law of psychological development of science; the word psychology is derived from the Greek language, meaning the science of the soul; the core is to promote the integrity of human development and cultivate the perfection of students' inner personality. In 2011, the Ministry of Education issued the "Basic Requirements for the Teaching of Mental Health Education Courses for Students in Ordinary Colleges and Universities," which clearly pointed out that the mental health education courses for college students "aim to enable students to clarify the standards and significance of mental health; enhance their awareness of self-mental health care and psychological crisis prevention; master and apply mental health knowledge; cultivate the self-cognitive ability, interpersonal communication ability, and self-regulation ability; effectively improve psychological quality; and promote the all-round development of students." The objectives of the mental health education course for college students include education at the knowledge level, education at the skill level, and education at the level of self-awareness, so this course must use the theoretical knowledge and methods of psychology according to the physical and mental characteristics and growth laws of students to cultivate students' self-esteem and self-confidence, rational peace, positive health status, and correct behavior habits; realize the unity of knowledge and intention; promote the comprehensiveness, richness, and integrity of students' personalities; and adapt students to the changing social environment. If the mental health education curriculum ignores the cultivation of students' personalities, cannot resolve psychological problems such as students' psychological distress, emotional confusion, and emotional disorders in a timely manner, gives play to the guiding role of positive cognition, the stimulating role of positive emotions and emotions, and the forging role of positive will, enhances the temperature of humanistic care and focuses on the shaping of students' personality; it will deviate from the goal requirements of the course's ideological and political cultivation of sentiment, warm heart, and sound personality.

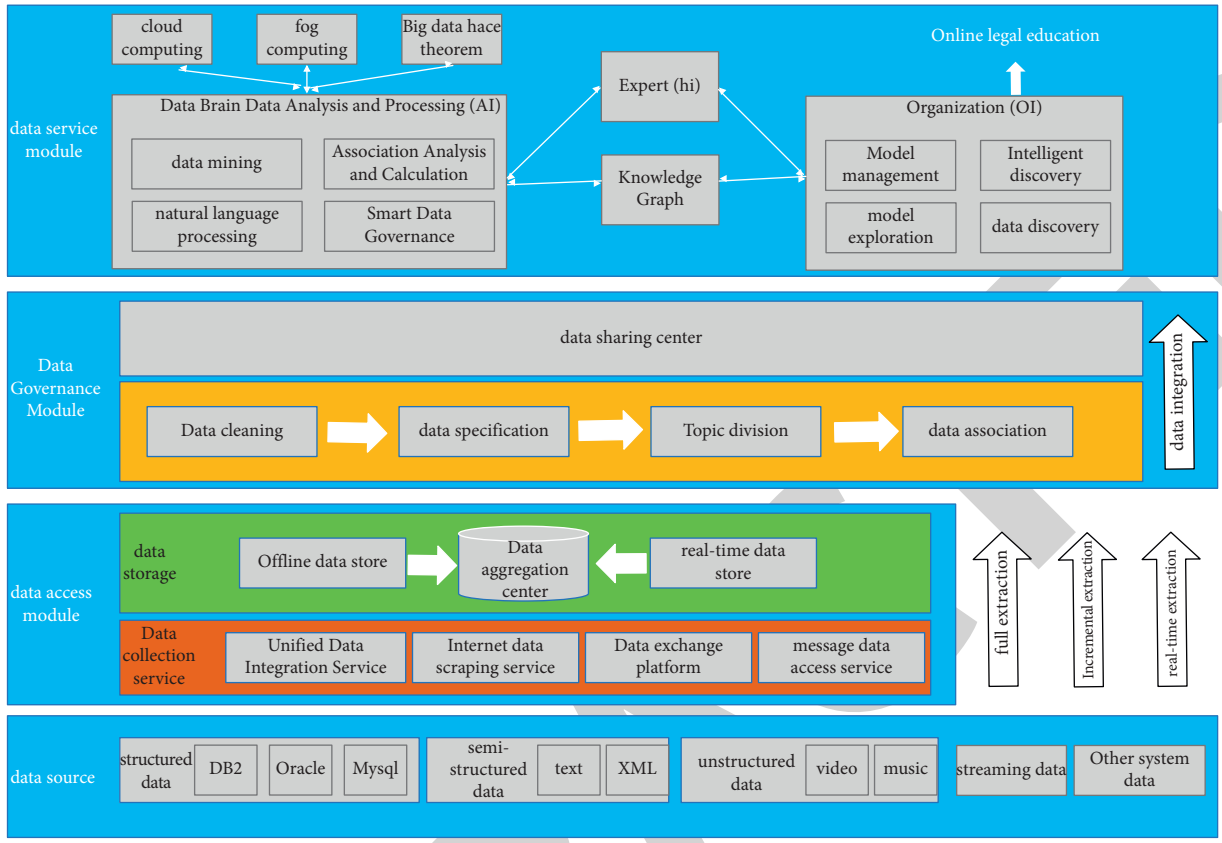

Figure 1: Framework of network environment department legal education system based on artificial intelligence.

3. Online Legal Education and Mental Health Education Achievements for College Students

Contemporary college students, whether in the handling of individual consciousness and collective consciousness, in the balance of the online virtual world and real life, or in the choice of state responsibility and individual obligations, need to use civic consciousness to regulate and regulate informed intentions; otherwise, improper handling will greatly affect the mental health of college students. Therefore, in chapters such as "College Students' Interpersonal Communication, Love Pursuit, and Stress Management," it is necessary to be good at integrating the educational content of civic awareness; take the cultivation of civic consciousness as an important starting point for promoting the mental health education of college students; use the situational teaching method to provide students with real-life scenarios; guide students to pay attention to strengthening civic awareness and legal awareness in the theoretical study of mental health; select typical cases; educate students in the practice of mental health; pay attention to transforming the requirements of the party and the state into the needs of college students' own growth; turn patriotic, dedicated, honest, and friendly civic consciousness into college students' daily code of conduct; promote the rationality and peace of college students' inner world; and develop good habits of abiding by the law. In order to understand the results of legal education and mental health education for contemporary college students in China, the research and analysis of college students was conducted.

3.1. Basic Situation. Through the above discussion of the concept and role of legal education in universities, the importance of promoting the legal education of college students can be basically understood. However, the achievements of online legal education can directly reflect the current situation of legal education in colleges and universities and the problems existing in the legal education of college students.

College students have a strong intention to conduct independent legal education through the Internet, which provides basic support for improving the content of college students' independent learning of the rule of law education. College students can learn the content of the rule of law education independently through the Internet, which is not limited by time and space. College students can learn the content of the rule of law education through the Internet anytime, anywhere, which greatly improves the autonomy of college students to participate in the activities of the rule of law education. In order to adjust the basic situation of college students' online legal education performance, the relevant data were obtained through research students understand the way to know the rule of law, as shown in Figure 2.

Most of the students believe that the Internet has a positive effect on the rule of law propaganda, and even 20%

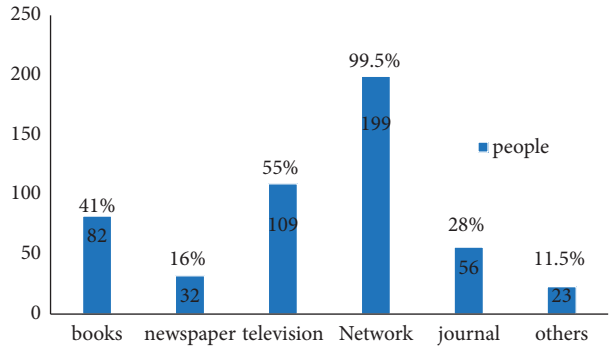

Figure 2: The way for college students to understand the law.

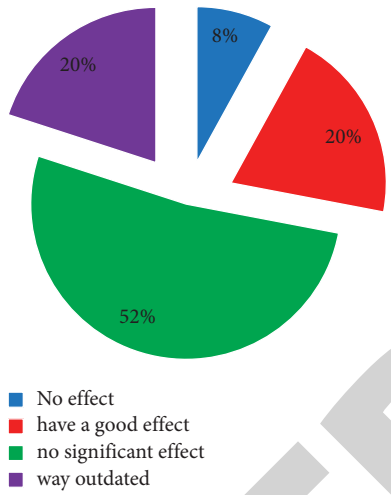

Figure 3: Pie chart of the role of the Internet in the education of the rule of law for college students.

of the students believe that the Internet has a good effect on the rule of law education of college students, but 8% of the students believe that the Internet has no effect on promoting the rule of law education of college students; in addition, 442 52% of the students who participated in the survey chose "the effect is not obvious" for the question of "the role of the Internet in the education of the rule of law for college students". The method is outdated and reduces the effect of using the Internet to promote the legal education of college students. At this stage, the effectiveness of using the Internet to carry out legal education in colleges and universities in my country needs to be strengthened. See Figures 3 and 4. In view of the above survey results, colleges and universities should re-examine the content of legal education on the basis of the goal of legal education, improve the publicity mode of legal education, and can combine the rule of law publicity with the main interests of college students while increasing the publicity but also can deepen the impression of the knowledge of the rule of law.

It is not very optimistic for college students to independently conduct legal education through the Internet. The Internet is an open space, and college

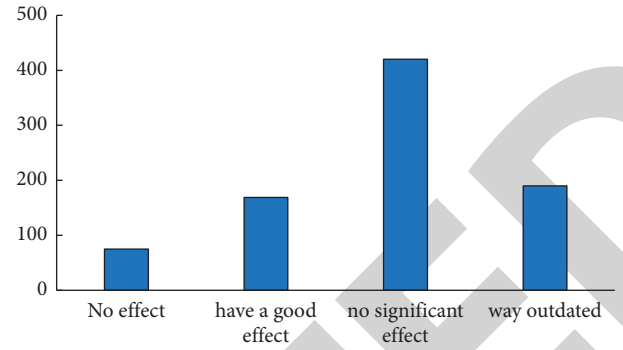

Figure 4: Histogram of the effect of the Internet on the education of the rule of law for college students.

Table 1: Internet browsing content of the surveyed college students.

	Legal knowledge	Current news	Life entertainment	Others
People	36	114	144	56
Percentage	10.3	32.6	41.1	16.0

Table 2: Surveyed college students use the Internet to learn legal knowledge independently.

	Excellent	OK	No	No and lower
People	50	156	108	36
Percentage	14.3%	44.6%	30.9%	10.3%

Table 3: Surveyed college students watching online legal programs.

	Often	General	Occasional	Never
People	34	74	158	84
Percentage	9.7%	21.1%	45.1%	24.0%

students have more choices on the Internet [10]. College students are at a special age. They are physically mature but psychologically immature. Facing the temptation of the Internet, weak-willed college students will easily lack the awareness of self-education, resulting in wasted time on the Internet. In addition, through interviews with students, it is found that when practical legal issues are not involved, few students use the Internet to learn legal knowledge independently and conduct self-education on the rule of law in their spare time. The low enthusiasm of college students to study law is an important reason that restricts the effectiveness of online legal education for college students. The specific data are shown in Tables 1–3.

Conducted a survey on the specific situation of college students' use of the Internet and found that college students' use of the Internet mostly focused on life and entertainment, and less attention was paid to legal knowledge. The specific situation is shown in Figures 5 and 6.

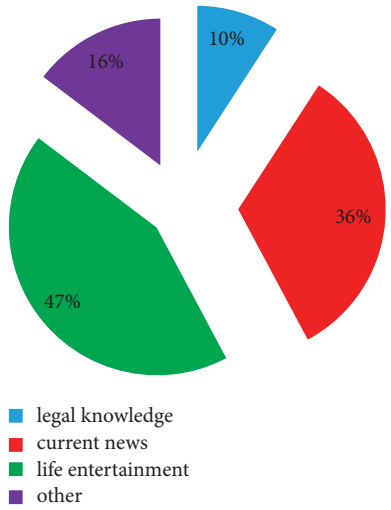

Figure 5: The main content ratio of college students using the Internet.

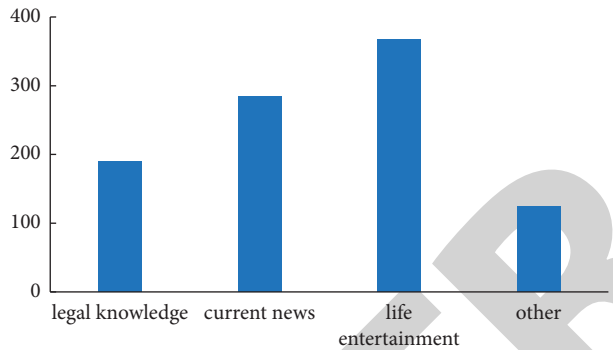

Figure 6: Distribution of the main content of college students using the Internet.

4. Ways to Improve the Rule of Law Education and Mental Health Education for College Students

With the vigorous development and rapid popularization of the network environment, China's college students have a poor concept of the legal system and a low legal quality, and it is difficult to meet the needs of a society ruled by law and the requirements of the reform of the market economic system. In order to improve the legal education of college students under the background of comprehensively raising civic awareness, we must first optimize the legal education environment in colleges and universities. The second is to accurately grasp the concept of legal education for college students, abandon the idea of utilitarian education, and continuously improve and perfect the educational model and approach. Focus on regulating the words and deeds of college students in the network environment.

4.1. Optimizing the Legal Education and Teaching Environment for College Students. The legal education environment for college students is an important part of the social legal environment. College students live and study in a specific campus environment, and the school's legal education environment has a great impact on the legal education of college students [11]. It is natural to impart legal theoretical knowledge to students through classroom teaching, but as an important part of the "two lessons," the fundamental foothold of the "legal foundation" course lies in comprehensively cultivating and improving the legal quality of college students. On the one hand, it is necessary to implement "governing the school by law" and "educate people by law" and subtly affect the formation and improvement of students' legal awareness in the campus culture. On the other hand, in terms of school rules and disciplines, there should be "laws to follow" and "laws to follow"; especially for individual students' violations of laws and disciplines, they should be dealt with according to the rules, and a strong atmosphere of the rule of law should be created for students in daily life, to set an example for students to "have laws to abide by and act in accordance with the law" and provide a good campus legal education environment for cultivating college students' legal awareness [12].

4.2. Abandon the Idea of Utilitarian Education and Accurately Grasp the Concept of Legal Education for College Students. The rule of law education of college students is to cultivate students' legal awareness and spirit of the rule of law. We cannot emphasize the education of social value orientation and ignore the education of personal value orientation, so that students' legal education can become a law-abiding education for cultivating "obedience to the people," and we can blindly emphasize personal value orientation education and ignore social value orientation education so that students' legal education can be cultivated. It is a "trickster" who only cares for his own self-interest, only considers himself without considering others, and tramples on the rights and public interests of others for the sake of personal interests. The order and harmonious development of society have become empty words. The rule of law education for college students should abandon the utilitarian educational thought and realize the dialectical unity of personal value orientation and social value orientation. The Fourth Plenary Session of the Eighteenth Party pointed out that it is necessary to promote the whole society to establish awareness of the rule of law and carry out in-depth publicity and education on the rule of law; the purpose is to cultivate citizens' legal awareness and the spirit of the rule of law. The spirit of the rule of law is a concept with very rich connotations. It is a synthesis of the values of the rule of law, such as fairness, equality, freedom, order, security, and the consistency of rights and obligations. It is the spiritual pillar of the construction of the rule of law system. It is a comprehensive proposition that integrates the spirit of human rights, the spirit of justice, the spirit of rationality, and the spirit of harmony. It is a scientific spirit formed by legal consciousness, legal thinking, legal psychology, and legal culture under the rule of law. It is also the guiding ideology and spiritual source of the practice of the rule of law. The cultivation of the legal spirit is not only the core goal of socialist

rule of law construction but also the basis of legal education for college students [13].

4.3. Effective Ways and Modes of Legal Education for College Students. When college students receive legal education, the most important thing is the learning process. With the popularization of the network environment, the advantages of the network environment can be rationally used to more widely transfer the understanding points and values of legal education, which has a good effect on enhancing the legal concept of college students. The education of the rule of law for students in colleges and universities not only includes the education of basic legal theory and basic legal knowledge but also, more importantly, cultivates students' legal awareness and the spirit of the rule of law. According to actual needs and in combination with different majors in colleges and universities, some legal courses related to the majors studied by the students of the school can be opened, so as to cultivate students' conscious awareness and knowledge of law-abiding, law-abiding and usage. Compared with boring theoretical lectures, it is closer to life and more attractive. Therefore, it is necessary to break the single teaching mode of purely theoretical professors and carry out a variety of teaching activities; for example, organize students to watch legal dramas, set up legal elective courses, court access to campus, and legal sitcoms of campus life. Publicize legal knowledge through newspapers, lectures on legal knowledge and other channels; open the network legal lectures and create a good campus legal environment and legal atmosphere. Second, continue to strengthen the social practice of the rule of law. Practice is the only criterion for testing the truth, and practicality itself is the essential character of legal knowledge. Practical teaching occupies an extremely important position in the process of legal education and is an effective way to promote the formation of college students' legal awareness, legal spirit, and legal thinking. Practice is more persuasive than classroom teaching. The social practice teaching of legal education for college students should be based on the social legal environment, based on the actual social production and life, and through a large amount of information, and then multi-dimensionally and comprehensively display phenomena and problems and guide students through personal practice, independent analysis, and exploration of problems and phenomena. Behind, there lies the concept and value of rule of law [14].

The system of legal education cases needs to be strengthened. At this stage, the traditional legal education of college students who do not major in science in our country is the main way of "Ideological and Moral Cultivation and Legal Basis," "Mao Zedong Thought and Introduction to the Theoretical System of Socialism with Chinese Characteristics," "Situation and Policy," and other courses. With the rapid development of society, the textbooks used in the courses are far from meeting the new teaching requirements. However, such public basic courses are offered uniformly by the state, and the content of the textbooks is also uniformly compiled by the Ministry of Education of the state. The updating and revision of textbooks often take a long time [15].

4.4. Strengthen the Construction of the Teachers' Team. The key to strengthening the construction of teachers is to strengthen the training of existing teachers. The training for educators mainly focuses on improving the legal literacy of educators and skills training in online course construction. First, teachers need to improve their own legal literacy. Due to their own limitations, educators reduce the effectiveness of online legal education for college students. Therefore, improving the legal literacy of educators plays an important role in enhancing the effectiveness of online legal education for college students [16]. To improve teachers' legal literacy lies in improving the ideological and political literacy, legal literacy, and lecturing ability to exist ideological and political educators. In view of the limitations of existing ideological and political educators in the legal profession, colleges and universities need to increase capital investment in legal education. The first is to regularly select and send ideological and political educators to participate in the training and advanced study of legal professional knowledge in a planned and targeted manner, so as to improve the legal literacy of legal educators from knowledge. At the same time, according to the teachers' own advantages and the existing conditions, teachers are encouraged to carry out further studies or to improve their academic qualifications in law. Second, colleges and universities can build judicial practice platforms to encourage educators to actively participate in judicial practice and academic exchanges. While expanding educators' horizons, they can also enhance educators' ability to use the law to solve problems and enrich educators' practical experience, so as to improve the educators of the rule of law theory and the purpose of the rule of law spirit. Secondly, to promote the online legal education of college students, the main body of education is college teachers. How teachers realize the integration of Internet and legal education is the key. Due to the limitations of teachers themselves and the lack of information technology, teachers use the Internet to promote the process of legal education for college students. Therefore, it is necessary to strengthen information technology training for teachers of legal education in colleges and universities, which is a requirement for college teachers in the context multiple times and an important way to promote online legal education for college students [17–19]. Information technology training for college teachers focuses on practicality, improving teachers' educational technology capabilities, allowing teachers to familiarize themselves with and understand the basic methods and means of integrating information technology and teaching, and master basic microlectures, MOOCs, and other networks. The principles and production methods of online classrooms will gradually introduce online courses into traditional legal education courses. Especially, legal professional teachers can use the technologies of online course construction such as microcourses and MOOCs, combined with the technical support provided by the school, to complete the recording of professional legal courses and gradually introduce online courses into traditional legal education courses. After the teachers of law majors truly realize the actual effect of the Internet on the education of the rule of law in universities and feel the practical benefits of the Internet to reduce their

workload, they will be more active in the work of the Internet and the education of the rule of law for college students [20]. In addition, colleges and universities can also incorporate the effectiveness of rule of law education into teachers' year-end target assessment, formulate reward and punishment systems, and add or subtract points according to teachers' completion status, so as to increase teachers' attention to rule of law education and encourage educators to continue to work in rule of law education. Innovate teaching methods to improve the effectiveness of online legal education for college students.

4.5. Enhance Students' Political Identity and Home-Country Feelings. Mental health education originated in the West; its origin theory is rooted in the Western cultural value system; emphasizing scientificity, objectivity, and reproducibility, these important theoretical schools, ideological views, technical design, operational norms, and so on have played an important role in promoting the development of mental health education but inevitably infiltrated the Western discourse system, institutional characteristics, and cultural values. The seriousness and diversity of mental health problems of college students in the United States have become more and more prominent, and the US mental health service system is difficult to meet the rapidly growing demand for services because the federal government has less support for the mental health of college students, and the lack of higher education policies around topics such as reducing service costs, increasing service content, and improving service systems. According to the requirements of "suspension of classes without stopping teaching and suspension of classes without stopping learning," the mental health education course for college students in China adopts the method of online teaching, strengthens the psychological counseling and humanistic care for college students in view of the difficult pain points of college students to cope with changes, and has received good results. Therefore, in "Overview of Mental Health," attention should be paid to guide students to dialectically look at the development history of mental health education, the advantages, and characteristics of mental health education in our country to feel the superiority of the socialist system and enhance cultural identity.

5. Conclusion

College students' mental health education courses are directly related to the healthy growth of college students, involving the country's long-term peace and stability and national rejuvenation, and integrating the concept of curriculum thinking into the education and teaching of the curriculum is of great significance to innovating the mental health education model of college students and improving the pertinence and effectiveness of education and teaching and also puts forward higher requirements for professional teachers. The mental health education of college students must adhere to the student-centered and result-oriented education concept, constantly optimize the teaching content, deeply explore the ideological and political factors in the course teaching, strengthen the cooperative education consciousness, and enhance the cooperative education ability. Shape students' character, conduct, and taste, so that students with lofty aspirations, integrity, and ability, to become a mission worthy of the new generation. With the increasing influence of the Internet, college students account for half of the growing number of Internet users. They are deeply influenced by the network environment, whether from the perspective of thinking mode, language habit, or even from the perspective of learning and life style, which also brings unprecedented challenges to the moral education in colleges and universities. Cultivating and improving the legal quality of college students will greatly promote the process of building China's socialist legal system in the twenty-first century and is an inevitable requirement for governing the country according to law. This paper puts forward some problems in the current legal education of college students in China and points out the root causes of these problems. An approach to legal reform based on the network environment is proposed. To cultivate and improve the legal quality of college students, the teaching reform should be the leader, and the basic way to optimize the teaching links, make full use of modern media, strengthen the campus legal environment, strengthen the practical links, and expand the space for student development should be the basic way.

Data Availability

The labeled data set used to support the findings of this study is available from the corresponding author upon request.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

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