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# Analysis on the Current Situation and Influencing Factors of Health Literacy of Primary and Secondary School Teachers in Shanghai

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**Abstract:** *Objective:* The outbreak of the covid-19 epidemic has increased the attention of the whole society to health. Health literacy is closely related to an individual's health status. While primary and secondary school teachers shoulder the important task of cultivating talents and educating people, it is of great significance to pay attention to their health literacy. The paper investigated the health literacy status and influencing factors of primary and secondary school teachers in Shanghai, analyzed the relationship between their health literacy levels and healthy behavior choices, grasped the needs of primary and secondary school teachers for access to health education and provided reference suggestions for improving the health literacy of primary and secondary school teachers. *Methods:* Using the cluster sampling method, in October 2020, 637 primary and secondary school teachers from 4 primary schools and 4 middle schools in Shanghai were selected as the study participants, and the general information questionnaires and the health literacy questionnaires were used to get information. Binary logistic regression analysis was used to explore the influencing factors of health literacy among primary and secondary school teachers. *Results:* The health literacy rate of primary and secondary school teachers in this group was 38.93%. The health knowledge, health skills, and health behaviors rates were 42.23%, 78.49%, and 47.10% respectively. The rate of health skills was higher than that of health knowledge and behavior. The three dimensions possession rates of health knowledge, skills, and behavior were not balanced. Five categories of health issues: scientific health concept, infectious disease prevention, chronic disease prevention, safety and first aid, and basic medical health literacy rates were 74.88%, 85.87%, 69.07%, 94.03%, and 69.07%, respectively. The top three access channels for health information were: Internet, TV broadcasting, books or newspapers and magazines. The results of binary logistic regression analysis showed that the satisfaction of health education content and form, gender, and access to health knowledge had an important impact on health literacy (all  $P < 0.05$ ). *Conclusions:* The health literacy level of primary and secondary school teachers in this group needed to be improved. It was also suggested that schools and the society should strengthen the development of health education, systematically impart health knowledge and skills to primary and secondary school teachers in multiple ways and in various forms, and at the same time, strengthen the monitoring of the health satisfaction of teachers, improve health satisfaction, improve health literacy, and promote health.

**Keywords:** Health Literacy, Primary and Secondary School Teachers, Influencing Factors, Countermeasures and Suggestions

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## 1. Introduction

The outbreak of the covid-19 epidemic has increased the attention of the whole society to health. As an important channel for students and teachers to acquire health knowledge

and skills, school health education has also received high attention [1]. Health literacy refers to the ability of individuals to obtain and understand health-related information to make correct health decisions to improve their own health [2]. Studies have shown that public health literacy levels directly affect their

health behaviors, and health behaviors further affect health outcomes [3]. Health literacy is closely related to an individual's health status, and educational settings such as schools can play a critical role in fostering health literacy [4]. As a new force, primary and secondary school students undertake the important mission of building the future, while primary and secondary school teachers shoulder the important task of cultivating talents and educating people, and it is of great significance to pay attention to their health literacy [5]. Therefore, this study conducted an investigation on the status quo of primary and secondary school teachers' health literacy in Shanghai, analyzed its influencing factors, and provided policy recommendations for improving the health literacy level of primary and secondary school teachers and ensuring the physical and mental health of primary and secondary school teachers.

## 2. Objects and Methods

### 2.1. Participants

The research adopted the stratified cluster sampling method. In October 2020, teachers from 8 primary and secondary schools in Shanghai were selected as the research subjects. A total of 638 questionnaires were received. All questionnaires were checked logically and based on the filling time. Questionnaires with inaccurate filling time and logic mistakes were regarded as invalid ones, and 637 valid questionnaires were finally obtained, with an effective rate of 99.84%.

### 2.2. Survey Tools

#### 2.2.1. General Information Questionnaire

Questionnaires were self-designed, which included genders, ages, teaching ages, types of school, school areas, subjects taught, the highest education, marital statuses, the effect of daily life health education, and the impact of daily satisfaction with the content and form of health education, and the number of ways to acquire health knowledge.

#### 2.2.2. Health Literacy Questionnaire

Based on "2009 Chinese Citizens' Health Literacy Questionnaire" and "Chinese Citizens' Health Literacy-Basic Knowledge and Skills (Trial)", the questionnaire was designed in combination with the characteristics of primary and secondary school teachers. The questionnaire included 3 dimensions of health knowledge, health skills, and health

behavior, and 5 types of health issues: scientific health concept, infectious disease prevention, chronic disease prevention, safety and first aid, and basic medical care, with a total of 38 items, all of which are multiple-choice questions, 1 point for the correct answer (questions only one correct answer), 1 point for questions (more than one answer is possible) with 60% or more correct answers, otherwise 0 point, with a total score of 38 points. The correct rate (number of items answered correctly/total number of items)  $\geq 80\%$  indicates the candidates had health literacy.

### 2.3. Data Collection Method

This study adopted the electronic questionnaire survey method, and the electronic questionnaire is distributed after obtaining the consent of the research participant's schools. The purpose and meaning of the survey and the method of filling in the questionnaire were explained to the primary and secondary school teachers by using unified instructions, and the questionnaire was distributed after obtaining their consent.

### 2.4. Statistical Methods

SPSS 20.0 was used for data analysis. The measurement data that obeyed the normal distribution were described by the mean, and those that did not conform to the normal distribution were represented by the median (M) and quartile (P25, P75). Percentage description, the comparison of the health literacy possession rate of primary and secondary school teachers with different characteristics used the chi-square test, the comparison of the health literacy means of primary and secondary school teachers with different health knowledge acquisition methods used the U test, and the multivariate analysis of the health literacy of primary and secondary school teachers used the binary logistic regression analysis.

## 3. Results

### 3.1. General Information

Among the 637 valid respondents, 116 were male, accounting for 18.2%, 521 were female, accounting for 81.8%; 327 were middle school teachers, accounting for 51.3%, and 310 were primary school teachers, accounting for 48.7%; other basic information (Table 1).

*Table 1. General data and characteristic distribution of the survey objects.*

Characteristics	Number	Percentage (%)
Gender		
Male	116	18.2
Female	521	81.8
Age		
<29	145	22.8
30-39	132	20.7
40-49	201	31.6
$\geq 50$	159	24.9
Teaching age		
<5 years	128	20.1
5-9 years	80	12.6

Characteristics	Number	Percentage (%)
10-19 years	106	16.6
20-29 years	185	29
>=30 years	138	21.7
School type		
Secondary school	327	51.3
Primary school	310	48.7
School areas		
Urban areas	545	85.6
Rural areas	92	14.4
Subject taught		
Chinese	191	30
Math	121	19
English	102	16
Physics	27	4.2
Chemistry	12	1.9
Other high school entrance examination subjects	82	12.9
Other non-high school entrance examination subjects	102	16
Marital status		
Unmarried	124	19.5
Married	488	76.6
Divorced	22	3.5
Widowed	3	0.5
Highest education level		
Postgraduate	51	8
Undergraduate	547	85.9
College student and below	39	6.1

### 3.2. The Scores of This Group of People in Health Literacy, Three Aspects of Health Literacy, and Five Types of Health Problems

The scores of this group of teachers in health literacy, health knowledge, health behavior, health skills, scientific health

concept, infectious disease prevention, chronic disease prevention, safety and first aid, and basic medical care were  $28.32\pm 5.10$ ,  $12.45\pm 2.86$ ,  $11.95\pm 2.40$ ,  $3.93\pm 0.833$ ,  $5.17\pm 1.46$ ,  $4.77\pm 1.36$ ,  $6.17\pm 1.49$ ,  $6.19\pm 1.15$ ,  $6.03\pm 1.56$  (Table 2).

Table 2. Health literacy scores.

	Min	Max	Mean $\pm$ SD
Health literacy (38)	1	37	$28.32\pm 5.10$
Health knowledge (17)	0	17	$12.45\pm 2.86$
Health behavior (16)	1	16	$11.95\pm 2.40$
Health skills (5)	0	5	$3.93\pm 0.83$
Scientific health concept (7)	0	7	$5.17\pm 1.46$
Infectious disease prevention (6)	0	6	$4.77\pm 1.36$
Chronic disease prevention (9)	1	9	$6.17\pm 1.49$
Safety and first aid (7)	0	7	$6.19\pm 1.15$
Basic medical care (9)	0	9	$6.03\pm 1.56$

### 3.3. Access to Health Knowledge

Among the ways of obtaining health knowledge, the "Internet" was selected with the highest proportion, and it was selected 526 times, accounting for 17.36% of all the selection and 82.6% of the total number of people. In addition to the "Other" option, the one with the lowest selection ratio was

"Classroom Teaching", which was selected 247 times, accounting for 8.15% of the number of times and 38.8% of the total number of students. From high to low, the selection ratio of the options for acquiring health knowledge was as follows: "Internet", "TV broadcast", "Books or newspapers and magazines", "Health publicity", "Families and friends", "Health lectures", "Classrooms" Teaching, "Other" (Table 3).

Table 3. Access to health knowledge.

access to health knowledge	Selected times	Proportion of selected times (%)	Proportion of people (%)
TV broadcasting	523	17.26	82.1
Books, newspapers and magazines	511	16.86	80.2
Classroom teaching	247	8.15	38.8
Health publicity	483	15.94	75.8
Internet	526	17.36	82.6

access to health knowledge	Selected times	Proportion of selected times (%)	Proportion of people (%)
Health lectures	350	11.55	54.9
Friends and relatives	365	12.05	57.3
Other ways	25	0.83	3.9

### 3.4. Health Literacy of Respondents Who Chose Different Ways of Acquiring Health Knowledge

In terms of health literacy, health knowledge, health behavior, and health skills, teachers who chose "TV broadcasting", "books, newspapers and magazines", "health promotion", "Internet", and "friends and relatives" scored higher than those who did not choose, and the difference was

statistically significant. In terms of health literacy and health behavior, teachers who chose "classroom teaching" scored higher than those who did not choose this approach, and the difference was statistically significant. In terms of health literacy, health knowledge, and health behavior, the scores of teachers who chose "health lectures" were higher than those who did not choose this approach, and the difference was statistically significant (Table 4).

**Table 4.** Health literacy of respondents who chose different ways of acquiring health knowledge.

access to health knowledge			health literacy	health knowledge	health behavior	health skills
TV broadcasting	No	$\bar{X} \pm S$	25.56±7.34	11.11±3.80	10.8±3.17	3.65±1.23
	Yes		28.92±4.25	12.74±2.52	12.2±2.12	3.99±0.71
	Z		4.64	3.95	4.25	2.17
	P		<0.001	<0.001	<0.001	0.030
Books, Newspapers and magazines	No	$\bar{X} \pm S$	25.4±7.26	11.14±3.80	10.62±3.18	3.64±1.19
	Yes		29.04±4.12	12.77±2.48	12.27±2.04	4±0.70
	Z		5.67	4.29	5.71	2.56
	P		<0.001	<0.001	<0.001	0.01
Classroom teaching	No	$\bar{X} \pm S$	27.89±5.44	12.31±3.03	11.67±2.45	3.91±0.91
	Yes		29±4.45	12.66±2.57	12.38±2.24	3.96±0.69
	Z		2.44	0.89	4.02	-0.21
	P		0.015	0.372	<0.001	0.837
Health publicity	No	$\bar{X} \pm S$	25.45±6.90	10.95±3.64	10.85±3.1	3.65±1.15
	Yes		29.24±3.97	12.92±2.37	12.29±2.00	4.02±0.68
	Z		6.71	6.08	5.17	3.32
	P		<0.001	<0.001	<0.001	0.001
Internet	No	$\bar{X} \pm S$	23.5±7.493	9.88±3.949	10.17±3.33	3.45±1.256
	Yes		29.34±3.72	12.99±2.23	12.32±1.96	4.03±0.67
	Z		8.45	8.16	6.64	4.81
	P		<0.001	<0.001	<0.001	<0.001
Health lectures	No	$\bar{X} \pm S$	26.96±6.19	11.76±3.39	11.37±2.78	3.83±1.01
	Yes		29.44±3.65	13.01±2.19	12.42±1.91	4.01±0.64
	Z		5.03	4.30	4.68	1.40
	P		<0.001	<0.001	<0.001	0.160
Friends and relatives	No	$\bar{X} \pm S$	26.78±6.32	11.58±3.41	11.42±2.87	3.78±0.98
	Yes		29.47±3.56	13.09±2.16	12.34±1.88	4.05±0.68
	Z		5.183	5.511	3.483	3.202
	P		<0.001	<0.001	<0.001	0.001

### 3.5. Comparison of the Health Literacy Possession Rates of Primary and Secondary School Teachers with Different Characteristics

The primary and secondary school teachers were divided into different groups based on genders, ages, teaching ages, school types, school areas, subjects taught, the highest education levels, marital statuses, impact of health education on daily life, and satisfaction with the content and form of daily health education and the number of ways to acquire knowledge, and their health literacy rates are compared. The results showed that for teachers with different teaching subjects, the effect of health education on teachers' daily life, and teachers with different satisfaction

with the content and form of daily health education, their health literacy rate differences were statistically significant (all  $P < 0.05$ ). For teachers with differences in marital statuses, genders, ages, teaching ages, and health education on daily life, their health knowledge possession rate differences were statistically significant ( $P < 0.05$ ). For teachers with differences in genders, the effect of health education on daily life, and the degree of satisfaction with the content and form of daily health education, their health behavior rate differences were statistically significant ( $P < 0.05$ ). For teachers with differences in ages, teaching ages, the effect of health education on daily life, and satisfaction with the content and form of daily health education, their health skills rate differences were statistically significant ( $P < 0.05$ ) (Table 5).

Table 5. Stratified analysis of health literacy.

	People with health literacy (rate%)	People with health knowledge (rate %)	People with health behavior (rate %)	People with health skills (rate %)
Impact of health education on daily life				
Effective	150 (45.7)	143 (43.6)	186 (56.7)	269 (82.0)
Average	98 (34.1)	123 (42.9)	113 (39.4)	223 (77.7)
Ineffective	0 (0.0)	3 (9.3)	1 (4.5)	8 (36.4)
$\chi^2$	23.169	7.671	35.018	25.643
P	<0.001	0.022	<0.001	<0.001
School type				
Secondary school	121 (37.0)	131 (40.1)	151 (46.2)	250 (76.5)
Primary school	127 (41.0)	138 (44.5)	149 (48.1)	250 (80.6)
$\chi^2$	1.052	1.295	0.227	1.657
P	0.305	0.255	0.633	0.198
School areas				
Urban areas	210 (38.5)	232 (42.6)	254 (46.6)	426 (78.2)
Rural areas	38 (41.3)	37 (40.2)	46 (50.0)	74 (80.4)
$\chi^2$	0.254	0.178	0.364	0.24
P	0.614	0.673	0.546	0.624
Subjects taught				
Chinese	76 (39.8)	89 (46.6)	93 (48.7)	149 (78.0)
Math	55 (45.5)	59 (48.8)	59 (48.8)	93 (76.9)
English	29 (28.4)	35 (34.3)	41 (40.2)	77 (75.5)
Physics	7 (25.9)	11 (40.7)	10 (37.0)	19 (70.4)
Chemistry	5 (41.7)	6 (50.0)	6 (50.0)	12 (100.0)
Other high school entrance examination subjects	44 (53.7)	36 (43.9)	44 (53.7)	72 (87.8)
Other non-high school entrance examination subjects	32 (31.4)	33 (32.4)	47 (46.1)	78 (76.5)
$\chi^2$	18.845	10.723	4.875	9.565
P	0.004	0.097	0.56	0.144
Marital statuses				
Unmarried	50 (40.3)	56 (45.2)	57 (46.0)	102 (82.3)
Married	193 (39.5)	209 (42.8)	233 (47.7)	382 (78.3)
Divorced	5 (22.7)	4 (18.2)	9 (40.9)	15 (68.2)
Widowed	0 (0.0)	0 (0.0)	1 (33.3)	1 (33.3)
$\chi^2$	4.521	7.916	0.712	6.064
P	0.21	0.048	0.87	0.109
Highest education level				
Postgraduate	16 (31.4)	21 (41.2)	22 (43.1)	39 (76.5)
Undergraduate	218 (39.9)	233 (42.6)	259 (47.3)	432 (79)
College student and below	14 (35.9)	15 (38.5)	300 (47.1)	29 (74.4)
$\chi^2$	1.572	0.28	0.376	0.594
P	0.456	0.869	0.829	0.743
Satisfaction with the content and form of daily health education				
Satisfied	121 (46.5)	116 (44.6)	149 (57.3)	211 (81.2)
Average	125 (35.0)	148 (41.5)	146 (40.9)	278 (77.9)
Unsatisfied	2 (10.0)	5 (25.0)	5 (25.0)	11 (55.0)
$\chi^2$	15.674	3.128	20.308	7.711
P	<0.001	0.209	<0.001	0.021
Gender				
Male	38 (32.8)	39 (33.6)	45 (38.8)	89 (76.7)
Female	210 (40.3)	230 (44.1)	255 (48.9)	411 (78.9)
$\chi^2$	2.274	4.308	3.924	0.263
P	0.132	0.038	0.048	0.608
Age				
<29	65 (44.8)	67 (46.2)	72 (49.7)	119 (82.1)
30-39	52 (39.4)	72 (54.5)	64 (48.5)	107 (81.1)
40-49	80 (39.8)	83 (41.3)	98 (48.8)	168 (83.6)
$\geq 50$	51 (32.1)	47 (29.7)	66 (41.5)	106 (66.7)
$\chi^2$	5.340	19.681	2.697	17.871
P	0.149	<0.001	0.441	0.001
Teaching age				
<5 years	57 (44.5)	61 (47.7)	65 (50.8)	104 (81.3)
5~9 years	31 (38.8)	36 (45.0)	38 (47.5)	66 (82.5)
10~19 years	43 (40.6)	58 (54.7)	52 (49.1)	87 (82.1)
20~29 years	72 (38.9)	73 (39.5)	81 (43.8)	149 (80.5)
$\geq 30$ years	45 (32.6)	41 (29.7)	64 (46.4)	94 (68.1)
$\chi^2$	4.129	18.02	1.71	11.405
P	0.389	0.001	0.789	0.022

### 3.6. Multi-factor Analysis of Primary and Secondary School Teachers' Health Literacy

Taking health literacy as the dependent variable, gender, age, teaching age, type of school, school area, subject taught, highest education level, marital status, the effect of health education on daily life, the satisfaction with the content and form of daily health education, and the number of ways to obtain health knowledge were used as independent variables for binary logistic regression analysis. The stepwise regression method was used to screen the variable results, with

$P < 0.05$  as the selection criterion and  $P > 0.15$  as the exclusion criterion. The results showed that the indicators of satisfaction with the content and form of health education, gender, age, subjects taught and access to health knowledge were statistically significant, and a logistic equation was constructed by screening out meaningful variables. The results showed that the satisfaction of health education content and form, gender, and access to health knowledge were the influencing factors of primary and secondary school teachers' health literacy ( $P < 0.05$ ) (Table 6).

**Table 6.** Logistic regression analysis of the factors influencing health literacy.

	$\beta$	Wald	P	OR	95% C.I.	
					lower limit	upper limit
Satisfaction with the content and form of daily health education						
Satisfied				1.000		
Average	-0.491	7.689	0.006	0.612	0.432	0.866
unsatisfied	-1.701	4.725	0.03	0.183	0.039	0.846
Gender						
Male				1.000		
Female	0.523	4.705	0.03	1.686	1.052	2.704
Subject taught						
Chinese				1.000		
Math	0.309	1.578	0.209	1.362	0.841	2.206
English	-0.458	2.767	0.096	0.633	0.369	1.085
Physics	-0.09	0.032	0.858	0.914	0.342	2.441
Chemistry	0.37	0.333	0.564	1.448	0.412	5.091
Other high school entrance examination subjects	0.77	7.07	0.008	2.159	1.224	3.808
Other non-high school entrance examination subjects	-0.205	0.559	0.455	0.814	0.475	1.395
Access to health knowledge						
Books, newspapers and magazines	0.723	8.385	0.004	2.061	1.263	3.363
Internet	1.174	17.172	<0.001	3.234	1.856	5.635
Constant	-2.245	27.224	<0.001	0.106		

## 4. Conclusions

### 4.1. The Health Literacy Level of Primary and Secondary School Teachers Needs to Be Improved

The health literacy rate of primary and secondary school teachers in this group is 38.93%, which is higher than the qualified rate (11.58%) of the national residents' health literacy level survey [6]. In addition, because a unified survey tool for primary and secondary school teachers' health literacy has not yet been established in China, the survey tools used in different studies will also lead to differences in the results of each study.

#### 4.1.1. There Was an Imbalance in the Three-Dimensional Health Literacy of Primary and Secondary School Teachers

The results of this study showed that the possession rate of health skills was higher than that of health knowledge and health behavior. There was an imbalance among the three dimensions: health knowledge (42.23%), health skills (78.49%), and health behaviors (47.10%). Except that the health skills have reached 78.49%, health knowledge and health behaviors needed to be further improved. Primary and

secondary school teachers were busy with educational affairs and paid less attention to their own physical health. They often only focused on the mastery of health skills in their daily life and applied them as they learned, and paid less attention to the systematic mastery of health knowledge and healthy behaviors.

#### 4.1.2. There Were Significant Differences in the Health Literacy of Primary and Secondary School Teachers in Five Aspects

Among the teachers in this group, there were obvious differences in health literacy: scientific health concept (74.88%), infectious disease prevention (85.87%), chronic disease prevention (69.07%), safety and first aid (94.03%), basic medical care (69.07%). Among them, teachers have the highest literacy in safety and first aid, which may be related to the long-term educational requirements of schools. In addition to paying attention to teaching in schools, teachers also needed to increase the knowledge of safety and first aid to ensure the safety of students' lives. However, the knowledge of chronic disease prevention and basic medical treatment among the teachers were not enough, so there were obvious shortcomings. Schools and the society needed to increase their attention and investment to improve the level of health literacy in this area.

#### **4.2. The Channels for Obtaining Health Information for Primary and Secondary School Teachers Needed to Be Expanded**

The top three channels for obtaining health information were: "Internet", "TV broadcasting", and "Books or newspapers and magazines", which fully conformed to the laws of modern social knowledge dissemination channels. It also suggested that in addition to increasing the utilization of such channels, we should also expand other health knowledge dissemination channels, and educate and publicize health knowledge through various effective channels [7].

#### **4.3. Different Ways of Acquiring Health Knowledge Had Different Effects on Improving Various Aspects of Health Literacy**

Teachers who chose "TV broadcasting", "books or newspapers and magazines", "health publicity", "Internet", and "relatives and friends" to acquire health knowledge had higher scores on health literacy, health knowledge, health behavior, and health skills than those of teachers who did not choose these ways to acquire health knowledge. Teachers who chose "classroom teaching" scored higher on health literacy and health behavior than those who did not and teachers who chose "health lectures" scored higher on health literacy, health knowledge, and health behavior than those who didn't choose this approach, which indicated that acquiring health knowledge through these approaches all played an important role in improving health literacy.

#### **4.4. Satisfaction with the Content and Form of Health Education, Access to Health Knowledge, and Gender Were the Influencing Factors of Health Literacy**

Logistic regression analysis of the influencing factors of health literacy in this study showed that the influencing factors of checking whether or not the applicant had health literacy were: satisfaction with the content and form of health education ( $P < 0.001$ ), two options for acquiring health knowledge ( $P < 0.05$ ), gender ( $P < 0.05$ ). Taking the satisfaction of the content and form of health education as a reference, the probability that teachers who were dissatisfied with health literacy ( $OR=0.183$ ) and who thought the content and form of health education was only fair ( $OR=0.612$ ) was much lower than that of teachers who were satisfied with health education. Among the two ways of acquiring health knowledge that affected health literacy, the Internet was chosen more frequently among the respondents, with 82.6% of teachers choosing this option; books or newspapers and magazines were also chosen by 80.2% of teachers, and those with health literacy possibility was significantly positively correlated with the choice of the Internet ( $OR=3.234$ ) and books, newspapers and magazines ( $OR=2.061$ ). Among teachers of different genders, taking male teachers as reference, female teachers were more likely to have health literacy than male teachers ( $OR = 1.686$ ).

#### **4.5. It Is Necessary to Pay More Attention to Groups with Weak Influencing Factors of Health Literacy [8]**

The survey results showed that the satisfaction of health education content, the way of acquiring health knowledge, and genders were the influencing factors of health literacy, which were consistent with relevant research results [9, 10]. It was necessary to increase health education and health promotion activities to improve the health literacy level of this group of teachers, and at the same time, conduct regular surveys on teachers' health education satisfaction, and carry out targeted publicity and education for male teachers and teachers with poor satisfaction.

## **5. Measures and Suggestions**

### **5.1. Carry out Comprehensive Health Education and Health Promotion Activities in Schools**

According to the survey, the health literacy rate of primary and secondary school teachers was 38.93%. Schools should increase investment in health education for teachers to further improve their health literacy levels and ensure a balanced development of health literacy. Health education was highly valued by all walks of life in the United States. They regarded health education as a means to achieve public health goals and improve public health. At the same time, health education was used to correct individual behaviors and lifestyles, and to formulate national health promotion policies to improve the health of the nation [11].

### **5.2. Expand Access to Health Education Information**

It was of great significance for schools to promote the popularization of teachers' related knowledge and information to improve teachers' health literacy. Schools should set up special health courses, train or hire health managers to conduct health education for teachers, and systematically teach and popularize health knowledge. At the same time, schools should carry out various campus health science education, such as science lectures, health censuses, knowledge competitions, on-site simulation teaching, new media ("Internet + precise health science"), etc. [12], to promote health science knowledge in an all-round way and improve the health literacy level of primary and secondary school teachers, and regularly organize emergency drills in the event of accidental disasters and health and safety incidents to help teachers better master escape and life-saving skills and methods, and maintain teachers and students' physical and mental health. The government and schools should also strengthen the supervision of the release and dissemination of health information to ensure that primary and secondary school teachers can obtain high-quality health information [12].

### **5.3. Investigate and Control of Health Risk Factors Among Teachers in a Targeted Way**

This study showed that the health literacy level of primary and secondary school teachers needed to be

improved, and the level of health literacy was affected by the satisfaction of the content and form of health education, access to health knowledge, and genders. In the future health promotion actions for primary and secondary school teachers, it was recommended to carry out targeted health education for teachers with different characteristics to promote the effective transformation of health literacy knowledge, belief, and behavior. For unhealthy lifestyles and behaviors, education should be given in a timely manner and corrections should be made to prevent adverse health outcomes and reduce adversely directed effects on student behavior [13].

#### **5.4. Regularly Carry out Health Literacy and Health Education Satisfaction Monitoring, and Formulate Intervention Measures and Effect Evaluations**

At present, China has regularly carried out national health literacy monitoring, dynamically monitoring the changing trend of the health literacy level of Chinese residents, and comprehensively and systematically grasping the health literacy level and influencing factors of Chinese residents. This monitoring work has been institutionalized and regularized, and the government has incorporated the evaluation indicators of residents' health literacy into the national health development plan [14]. Relevant health departments can formulate a health literacy monitoring mechanism in colleges and universities, determine unified monitoring standards, conduct regular monitoring and follow-up investigations in colleges and universities, and master primary and secondary school teachers' literacy levels. According to the monitoring results, corresponding intervention measures were formulated, and each college took targeted intervention measures according to the current situation of teachers' literacy. Regular monitoring can also compare the health literacy levels before and after the intervention, and evaluate and analyze the intervention effect, so as to adjust the health education methods, improve the health literacy levels of primary and secondary school teachers, and finally improve the health behavior [15], so as to promote health.

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