

Investigation and Analysis of Northwest Universities Teacher's Physical Sub-Health Status and Its Influencing Factors-A Case Study of Chang'an University

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Abstract. Objectives: To examine the prevalence and influencing factors of physical sub-health among Northwest Universities Teacher. Design: In research, using several methods (including literature material law, questionnaire survey, and mathematical statistics) to give the physical sub-health status, lifestyle and physical exercise habit a more comprehensive understanding. In addition, the correlation analysis will be stated from the influence of lifestyle and exercise habits of the physical sub-health status to discover the influence factors of affecting the body and health. To develop a better understanding of the physical sub-health status, life style and physical exercise habit of subjects, the researchers adopted several methods including systematic literature reviews, questionnaire survey and mathematical statistics. A correlation analysis is conducted to examine the influence of life style and physical exercise habit on sub- health status, so that we can dig out factors contributing to sub-health status based on the analysis. Results: The overall sub-health rate of teachers is 50.7%. Among them, the rate of sub-health status in female teachers is much higher than that of male teachers by 13.8% and 8.6% more than the overall sub-health status rate. Among teachers in all colleges, teachers from foreign language college and automobile experience the most serious physical condition with sub-health status rate of 83.4% and 80.0% respectively. The sub-health rate also varies in different titles of teacher. Professors have the highest chance of having sub-health status, with up to 58.3%, which is 7.6% higher than the overall level. Lecturers with few class hours and with long class hours shows a sub-health rate of 6.3% and 5.4% higher than those with average teaching hours. The rate of teacher's positive factors is ranked as follows: fatigue factor> somatic discomfort factor>sleep factor>digestive factor. Furthermore, the number of teachers with a normal body mass index is only 63.4% out of the total number. Conclusion: Teachers mainly present in terms of fatigue, pain symptom, teachers in different colleges, genders, ages, academic qualifications, professional titles, different teaching hours and teaching methods indicate different physical and sub-health conditions. The main influencing factors of teachers' sub-health can be attributed to lifestyle and physical exercise. 1) In living pattern, sleeping hours and late-night habits are the factors that affecting the sub-health of the body, and the teachers will have sleep quality problems. The total time of using electronic devices every day is not related to the sub-health state of the body, but the total time spent on electronic devices per day is significantly associated with sleep-positive symptom factors. 2) For eating habits, whether subjects have regular meals and moderate diet or not is the influencing factor of the sub-health status of the body and the positive factors of digestive discomfort. 3) Bad habits (smoking, drinking) are not one of the factors affecting the sub-health of the body. 4) In physical exercise habits, the sports population, frequency of exercise per week, time of each exercise, and intensity of each exercise are factors affecting the sub-health of the body. The degree of correlation with the sub-health status of the body ranked as: sports population> Weekly exercise times>Every exercise time>Every exercise intensity.

Keywords: University teacher; physical sub-health; influencing factors.

1. Introduction

As the central government advocates and practices the "Western Development", the development of politics, economy, culture, education, science and technology in the western region has received significant attention. However, there is still a huge gap between the northwestern region and the eastern coastal areas in many aspects, especially the natural environments such as climate, hydrology and soil. College teachers themselves are responsible for teaching and scientific research. The overall

health level of many intellectuals, especially college teachers, is declining. More than 70% of them are in a sub-health state, or even premature death [1]. At present, many scholars are paying great attention to sub-health related research. The WHO published a global survey and found that 75% of the world's population is in a sub-health state, 20% are classified as non-healthy, and only 5% of people are in a healthy state [2]. Due to the nature of work for college teachers requires them to focus more on intelligent work, they do not have enough physical exercise. Also, long standing hours for teaching in class is another character of teacher's work. Standing for a long time may have adverse effects on related muscle groups and joints that supports standing position. These factors may have certain impact on the physical health condition. Since the medical examination can only indicate whether the teacher's body organs have diseases, the teacher's body sub-health status cannot be effectively evaluated by this method.

At the same time, this research also actively responds to the State Council's "National Fitness Regulations" (2016-2020) issued: "Actively create physical fitness environment for intellectuals, advocate and promote sports fitness methods suitable for their work characteristics, pay attention to alignment relevant policies such as 'high-level intellectuals conduct health checkups and physical fitness tests' [3]." Based on this, it is of great theoretical and practical significance to conduct research on the physical and sub-health status of the full-time teachers in Northwest universities and the analysis of the causes.

2. Research Object and Method

2.1 Research Object

The research objectives of this paper are full-time teachers of Northwest Universities. Among those universities, Chang'an University is directly under the Ministry of Education, and gradually develops into a work-oriented university, which combines science and arts, social science and basic disciplines. It is a typical model of northwestern universities, located in Xi'an, Shanxi Province.

2.2 Research Method

2.2.1 Design of the Questionnaire

According to the research needs, a questionnaire, named "Personal Health Status and Lifestyle Questionnaire" is designed with multiple choice questions. The questionnaire mainly covers questions in four perspectives: 1) basic information 2) physical health condition 3) lifestyle 4) physical exercise. The first part is collection of basic objective information; thus, no reliability and validity test are needed. The second part refers to the results of 'the research on the preliminary compilation and reliability and validity of the self-rating scale of the somatic symptoms in the sub-health' state by Han Biao and other scholars. The reliability of result in the third and fourth part is tested by Chronbach's α index through SPSS software 17 ($\alpha=0.69$), which is consistent with result of reliability and validity test.

2.2.2 Sampling Method

The stratified sampling method is adopted, which is stratified by the colleges. The sample is based on the ratio of the number of full-time teachers in each college, and the research sample is selected (see Figure 1).

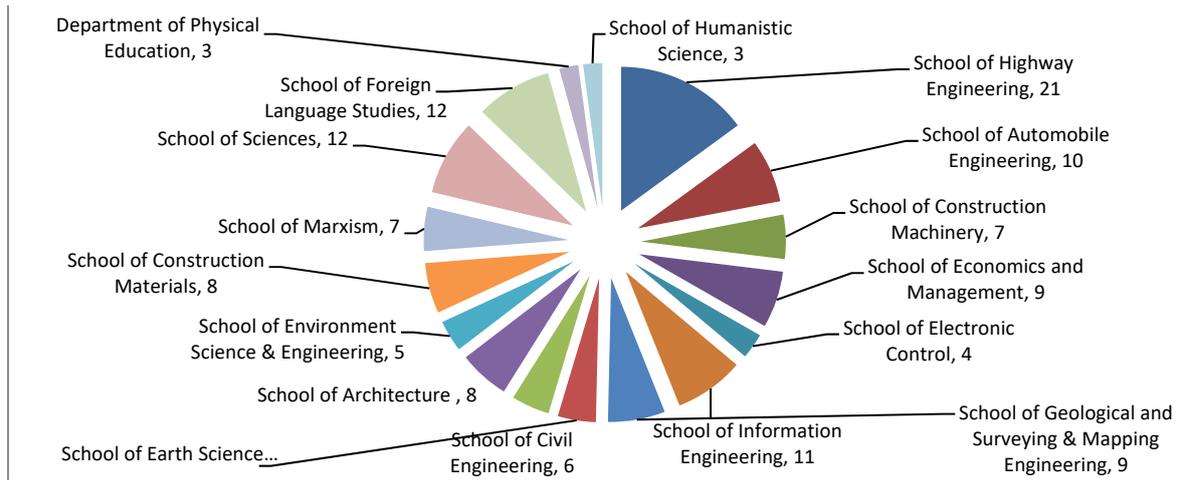


Figure 1. Number of teachers surveyed by various schools

2.2.3 Issuance and Recycling of Questionnaires

A total of 150 copies were distributed, 150 questionnaires were returned, and 142 valid questionnaires were obtained. The recovery rate was 100%, and the effective recovery rate was 94.7%. Taking into account the special fact of the teacher's work schedule and investigation time, as well as the effectiveness of data collation, the questionnaire is issued only by face-to-face distribution and face-to-face recycling.

2.2.4 Quality Control

Before the investigation, the researcher clarified the purpose of investigation and ensure respondents have no organic diseases or psychological diseases. The questionnaire was distributed and collected by the author to ensure the authenticity and reliability of information collected. Data entry is entered by one person to ensure correct data entry.

2.2.5 Mathematical Statistics

The SPSS17.0 and EXCEL 2010 software were adopted to analyze the health status, lifestyle and physical exercise of the full-time teachers of Chang'an University. The statistical methods include: descriptive analysis and correlation analysis.

3. Results

3.1 Analysis of the Status of Teachers' Physical Sub-health

3.1.1 Analysis of Physical Sub-health Status of Teachers and Positive Status of Various Factors of Physical Sub-health

According to the study of 'the preliminary preparation of the self-rating scale of the somatic symptoms in the sub-health state and its reliability and validity study', the scoring method adopts a five-level scoring system, including none, occasionally, light, medium and heavy, ranging from 0 to 4. If the total score is greater than or equal to 18, the health condition of subject is classified as sub-health. The higher score, the more serious of sub-health condition [4]. Based on collected information, 70 out of 142 full-time teachers are healthy, which constitutes 49% of total numbers. 72 of total teacher are in sub-health condition, with a percentage of 50.7%.

From 'the preliminary study on the self-assessment of the physical symptoms of the sub-health state and its reliability and validity study', the physical sub-health self-rating scale consists of four parts: sleep factor, fatigue factor, physical discomfort factor and digestive factor. If some of the items score ≥ 1 and the average score is ≥ 1.0 , then the part of the factor is positive. The incidence of positive factors is calculated as the number of positive factors in the sub-health status of the body/the total number of positive factors $\times 100\%$ [4].

It can be seen from Table 1 that, in general, the positive rate of each factor ranked as: fatigue factor > physical discomfort factor > sleep factor > digestive factor. It is known from the teacher's positive symptom rate that the sub-health status of the teacher's body is mainly affected by fatigue factors and physical discomfort factors. The conclusion differs from result of Wei Yulin's research. In Wei's research, the research objectives include 626 medical staff in general hospital in Beijing and 3000 employees in the research institute of the Friendship Hospital affiliated to Capital Medical University. The study concluded that the factor positive rate: fatigue factor > sleep factor > physical discomfort factor > digestive factor. The difference of conclusion could be the result of difference in identity and working nature of research objects. Therefore, the high score in sleep factor of medical staff may be related to the early and late shifts and the need for long-term staying up late. The high score in physical discomfort factor among teachers may be related to the long-term standing posture, which affects the skeletal muscles and joints that supporting standing posture [4].

Table 1. physical sub-health factors

	Health		Physical Sub-health		Total	
	N	%	N	%	N	%
Sleep disorder	11	20.4%	43	79.6%	54	100.0%
Fatigue	0	0	12	100.0%	12	100.0%
Pain	1	3.5%	27	96.5%	28	100.0%
Dyspepsia	18	24.7%	55	75.3%	73	100.0%

3.1.2 Analysis of the Physical Sub-health Status of Teachers in Different Basic Situations

3.1.2.1 Different Schools

It can be seen from Table 2 that the physical health status of teachers in foreign language colleges and automobile colleges are the most serious, while the physical health status of teachers in electronic control colleges, architecture colleges and materials colleges are more optimistic. As indicated from Table 12, the incidence of the sub-health of the teacher's body is correlated to the number of class hours with U shape. Teachers with longer than average teaching hours or much less than average teaching hours have greater chance to become sub-healthy than those with average teaching hours. The difference among teachers in different colleges could be the result of different teaching hours, as we can see that teachers in Foreign Language School and Automobile College have either long teaching hours or few teaching hours, while teachers in Electronic Control College and School of Architecture have average teaching hours.

Table 2. Analysis of the health status of teachers in different colleges (N=142)

Different schools	health	physical sub-health	
	%		%
School of Highway Engineering	57.1		42.9
School of Automobile Engineering	20.0		80.0
School of Construction Machinery	42.8		57.2
School of Economics and Management	33.3		66.7
School of Electronic Control	75.0		25.0
School of Information Engineering	54.5		45.5
School of Geological Surveying & Mapping Engineering	55.5		44.5
School of Earth Science and Land Resources	50.0		50.0
School of Civil Engineering	33.3		66.7
School of Architecture	75.0		25.0
School of Environment Science & Engineering	40.0		60.0
School of Construction Materials	75.0		25.0
School of Marxism	42.8		57.2
School of Sciences	58.3		41.7
School of Foreign Language Studies	16.6		83.4
Department of Physical Education	33.3		66.7
School of Humanistic Science	100.0		0

3.1.2.2 Gender

As can be seen from Table 3, Figures 2 and 3, the sub-health status of female teachers is much higher than that of male teachers by 13.8%; and it is 8.6% higher than the overall sub-health status. According to the teacher's sub-health and physical exercise correlation analysis, males tends to keep working while in their leisure time, while females choose to spend more time with elderly and children. Therefore, the reason for higher sub-health rate in female teachers could lie on responsibilities apart from working and promotion, such as educating children and take care of elderly. These factors expose the female teachers under both work stress and family pressure, thus, lacking the time and energy to have a comprehensive understanding of their health. These reasons are consistent with the research results of scholar Li Zhongxiang in the study of the relationship between the sub-health state and physical exercise of faculty and staff in our school [5].

Table 3. Relationship between gender and physical sub-health (N=142)

		health		physical sub-health	
		N	%	N	%
Gender	Male	48	54.5	40	45.5
	Female	22	40.7	32	59.3
Total		70	49.3	72	50.7

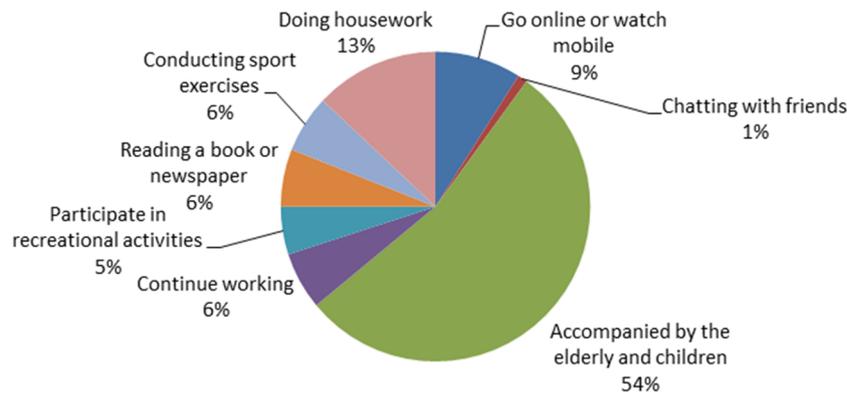


Figure 2. The main way for male teachers to spend their leisure time

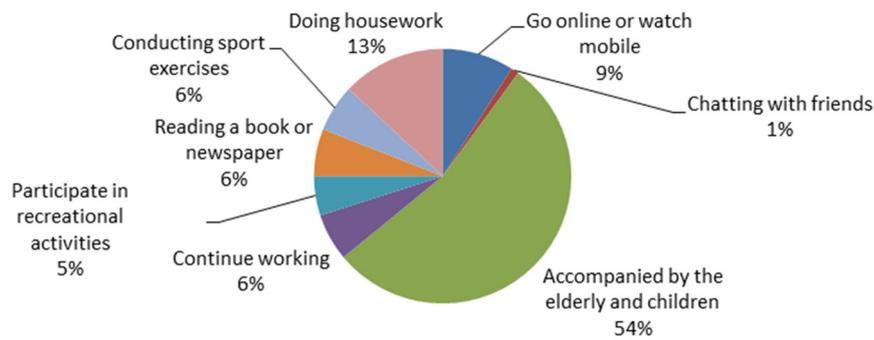


Figure 3. The main way for female teachers to spend their leisure time

3.1.2.3 Different Qualifications

According to the statistics, the sub-health rate of teachers with different academic qualifications ranked as: teachers with undergraduate degree (60.0%)> master degree (54.9%)> doctor degree (49.1%). The sub-health rate is negatively correlated with academic qualifications. The higher the academic qualification, the lower the sub-health rate. This indicates that the academic level is one of the influencing factors of the sub-health status of the body. In addition, academic and health knowledge has a significant correlation of $R = 0.0117$. It can be seen from Table 4 that teachers with

different academic qualifications have different knowledge channels. The higher the degree of education, the more ways to obtain health knowledge. This may be one of the main reasons for teachers' different sub-health risks in different academic qualifications. The more relevant theoretical knowledge, the more aware of their own health, so the higher the teacher's academic qualifications, the lower the sub-health probability.

Table 4. Relationship between education and access to health knowledge (N=142)

		family Education	school education	Self-learning	Total
		%	%	%	%
Academic qualifications	Bachelor	0	20	40	40
	master's degree	3.2	3.2	45.2	48.4
	Doctor	1.9	1.0	47.2	50.0

3.1.2.4 Different Titles and Different Age Groups

According to statistics, among different titles, professors have the highest sub-health rate of 58.3%, which is 7.6% higher than the overall level, followed by the sub-health rate of assistant teachers, lecturers and associate professors. They are 25.0%, 55.4%, and 44.5%, respectively. The reason is that professors face more stress of scientific research task, and the lecturer is in the process of promotion and the work pressure, such as job title evaluation, job promotion, teaching reform, scientific research tasks, etc. [6] As a result, professors and lecturers have higher sub-health rates.

As can be seen from Figure 4, the sub-health rate of the body increases with age; and the sub-health rate for groups from the 40 to 49 age and above is higher than the overall teacher sub-health rate. In different ages, the sub-health rate of teachers' body increases with age, which indicates that the size of the age is one of the factors affecting the sub-health of the body. It may be that the body function is declining as the age increases. The chances of suffering from chronic diseases and strains increase.

It can be seen from Table 5 that at any age stage, the probability of sub-health is greater than or equal to the probability of being healthy among professors. The possibility of sub-health is increasing with ages growing. And the irresistible level of self-function is removed. Professors as the academic leaders must work with the important research tasks and face other work pressures.

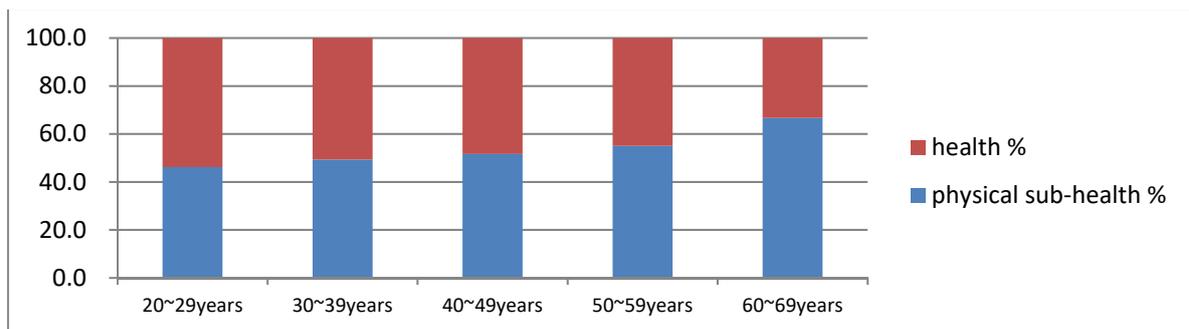


Figure 4. Percentage of teachers' health status at different ages

Table 5. Relationship between different job titles and physical sub-health at various ages (N=142)

		Physical sub-health	Health
		%	%
20~29years	teaching assistant	33.3	66.7
	Lecturer	57.1	42.9
30~39years	teaching assistant	0	100
	Lecturer	56.3	43.7
	Associate Professor	38.1	61.9
40~49years	Professor	50.0	50.0
	Lecturer	55.6	44.4
	Associate Professor	46.7	53.3
50~59years	Professor	57.1	42.9
	Lecturer	0	100.
	Associate Professor	55.6	44.4
60~69years	Professor	60.0	40.0
	Professor	66.7	33.3

3.1.2.5 Different Teaching Methods and Teaching Time

According to the statistical position percentage method, the teacher teaching time is divided into three levels, teaching hours range from 0 to 48 hours per semester is classified as “below average” group; teaching hours range from 49 to 96 hours per semester is “average group” and hours range from 97 to 288 hours is called “above average”. Details of sub-health condition for each group are shown in Table 12.

It can be seen from Fig. 6 that the incidence of the sub-health of the teacher's body is related to the amount of class time. Teacher with below average class hours and above average class hours is more likely than teachers with average class hours, with chance of 6.3% and 5.4% higher respectively. According to the interview with the respondents, teachers with fewer class hours need to complete certain scientific research tasks to supplement a certain amount of class hours. Therefore, teachers who take fewer class hours and more class hours as teaching tasks need to spend a lot of time to work at the desk in order to complete a task with a certain degree of difficulty, thus long seating hours have certain impact on physical health.

According to the different teaching methods of teachers, it can be divided into indoor teaching (indoor multimedia is A1, indoor laboratory is A2) and outdoor teaching (outdoor experimental class is B1). Firstly, as can be seen from Figure 6, regardless of the amount of class time, the number of sub-health of teachers who use indoor multimedia as the way of teaching is more than the number of teachers in health status. However, for teachers using other methods to teach, the number of the healthy teacher is greater than in subhealth condition. Secondly, the main media for teaching is based on indoor multimedia. The reason for teachers using indoor multimedia are healthier could be explained by their long- standing hours and mental work. However, such teaching methods may cause physical discomfort and Fatigue, which is consistent with the results of the above-mentioned teacher's sub-health status mainly affected by fatigue factors and physical discomfort factors.

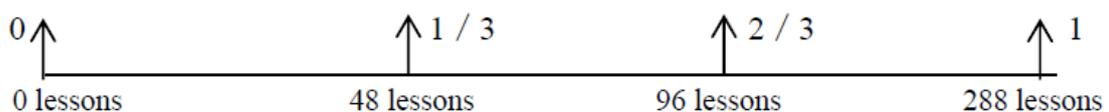


Figure 5. Schematic diagram of the teacher's lecture time position percentage method

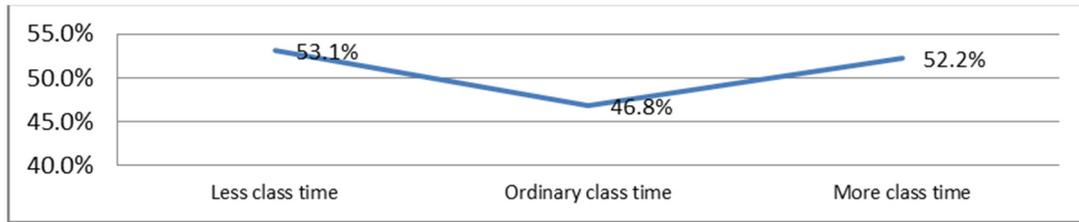


Figure 6. Teacher's sub-health probability in different hours of class

Table 6. Relationship between teaching methods and physical sub-health (N=142)

	Teaching methods					
	A1	A2	B1	A1+A2	A1+B1	A1+A2+B1
	N	N	N	N	N	N
Health	48	4	1	7	6	4
Physical sub-health	61	2	1	4	4	0

3.1.2.6 BMI

According to the internationally accepted Body Mass Index (BMI), [BMI=weight (kg)/height (m²)], the body weight of Chinese adults BMI classification is as follows: <18.5 is lean, 18.5-23.9 is normal, 24.0~27. Overweight, 28.0~29.9 is I degree obesity, ≥30 is II degree obesity, ≥40.0 is III degree obesity. Generally speaking, the probability of a teacher's sub-health status increases with the increase of body mass index. The body mass index is a measure of the degree of fatness and health condition of the body. The number of teachers with a normal body mass index accounted for only 63.4% of the total number. The figure indicates that the overall health of teachers is not optimistic. This is consistent with the figure that teacher's total body sub-health rate is 50.7%, and the idea that the results of the teachers' overall health are not ideal.

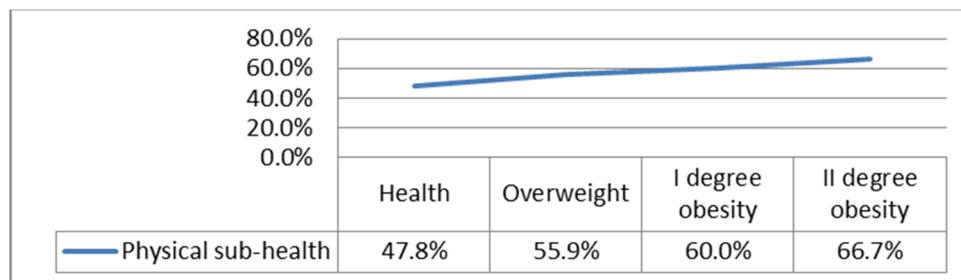


Figure 7. Trends in the body sub-health ratio of teachers with different BMI indices

3.2 Teacher's Physical Sub-health and Lifestyle Correlation Analysis

3.2.1 Life and Work

3.2.1.1 Sleep Time

It can be seen from the statistical data that sleep time and body sub-health have a significant negative correlation with $R=-0.0231$, indicating that sleep time is one of the influencing factors of physical sub-health. It can be seen from Tables 7 and 8 that 82.4% of the teachers' sleep time is in line with the normal sleep time of the World Health Organization adults (between 10 hours). However, the quality of sleep in the teacher population is still problematic. 41 teachers (75.9%) show a positive sleep factor even though their sleeping time meets the requirement.

Table 7. Relationship between sleep time and physical sub-health (N=142)

		Health	Physical sub-health	Total
		%	%	%
Sleeping time	Below 6h	25.0	75.0	24(16.9%)
	6~10h	53.8	46.2	117(82.4%)
	More than 10h	100.0	0	1(0.7%)

Table 8. Relationship between sleep time and sleep positive factors (N=54)

Sleeping time						
Sleep disorder symptom	Below 6h		6~10h		10h or more	
	N	%	N	%	N	%
	12	22.2	41	75.9	1	1.9

3.2.1.2 Stay up Late Habits

It can be seen from the statistics that the diurnal habits and the sub-health of the body have a significant correlation with $R=0.0195$, indicating staying up late is one of the influencing factors of the sub-health of the body. It can be seen from Table 9 that teachers who do not have the habit of staying up late have the lowest chance of suffering from the sub-health status of the body, accounting for only 30%. This shows that good work habits are beneficial to the health of the body to a certain extent.

Table 9. Relationship between late night habits and physical sub-health

	Late night habit (sleeping after 23 o'clock)				
	Not	Rarely	sometimes	Regularly	Always
	%	%	%	%	%
Health	70.0	57.7	36.4	50.0	40.0
Physical sub-health	30.0	42.3	63.6	50.0	60.0

3.2.1.3 Time for using Electronic Equipment

According to statistics, the total time of using electronic devices per day is not related to the sub-health status of the body, but the total time of using electronic devices per day is very significantly related to the sleep-positive symptom factor of 0.0453, which indicates that the total time of using electronic devices every day is not a factor that affects the sub-health state of the body. It can be seen from Figure 8 that the total time of using electronic devices every day is a factor affecting the occurrence of sleep-positive factors. When the use of electronic devices exceeds a certain period of time every day, the probability of suffering from sleep-positive factors increases. This could be result of long hours of using electronic devices, and thus less sleeping time left, which affects the sleeping quality.

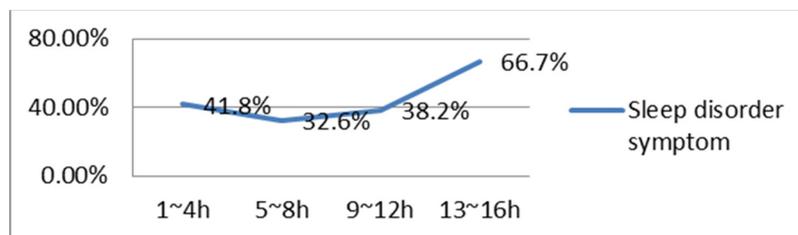


Figure 8. Relationship between the total time of use of different electronic devices and sleep positive factors

3.2.2 Eating Habits

3.2.2.1 Regular Meals and Proper Diet

According to statistics, whether the subjects have regular meals and proper diet is highly correlated with sub-health status of the body and the positive factors of digestive discomfort, indicating that it is a factor affecting the sub-health status of the body and the positive factors of digestive discomfort.

In terms of regular meals, among teachers with eating habits classified as “regular” and “very regular”, 93.4% of them are healthy. While 10 out of 14 of teachers with “irregular” eating habits are in sub-health condition. Those evidence supports the idea that irregular eating habits could lead to sub-health to some extent.

In addition, the amount of diet among teachers is not reasonable. Only 54.2% of teachers maintain normal level of eating, which is about 70% or 80% full. The sub health rate of teachers who eat more than normal level is higher than overall sub-health rate. This shows that the usual amount of food may cause sub-health in the body to a certain extent, and the amount of food is best in seven or eight. Domestic scholars have shown that the high incidence of the sub-health status of intellectuals is related to unreasonable dietary structure, and factors such as poor breakfast habits and low health concerns. The result is consistent with the findings of sub-health studies [7, 8].

Table 10. Whether the regularity of three meals a day and the normal diet are related to the physical sub-health and Dyspepsia symptom

R Coefficient	Physical sub-health	Dyspepsia symptom
Whether the regularity of three meals a day	0.0375	0.0222
Whether the diet is usually quantified	0.0266	0.0220

Table 11. Relationship between regularity and body sub-health (N=142)

Whether the regularity of three meals a day			
	Very regular	Regular	Not regular
	%	%	%
Health	76.9	45.1	28.6
Physical sub-health	23.1	54.9	71.4

Table 12. Relationship between quantitative diet and physical sub-health (N=142)

Whether the diet is usually quantified				
	Seven or eight full	Very full	Super full	Uncertainty
	%	%	%	%
Health	53.2	48.3	0	16.7
Physical sub-health	46.8	51.7	100.0	83.3

3.2.2.2 Bad Habits

According to the correlation analysis, bad habits (smoking, drinking alcohol) are not significantly related to the sub-health of the body. According to Lu Ya scholars, smoking is the main risk factor for lung cancer, and its risk increases significantly with the increase of years of smoking history and smoking depth. Excessive drinking, smoking can increase the incidence of hypertension in Chinese residents. The bad habits (smoking and drinking alcohol) also has a joint effect on the occurrence of liver cancer [9]. Therefore, bad habits may have negative effect on the organs. The average consumption of citrates for teacher is under 5 pieces per person per day, which is not a significant amount. In this paper, sub-health condition mainly focused on sleep factor, fatigue factor, physical discomfort factor and digestive factor. Therefore, the bad habit (smoking, drinking alcohol) is not a reasonable factor for the sub-health of the body.

Table 13. Relationship between bad habits and physical sub-health (N=142)

	Bad habits							
	Smoking				Drinking			
	Yes		No		Yes		No	
	N	%	N	%	N	%	N	%
Health	12	48.0	58	49.6	33	46.5	37	52.1
Physical sub-health	13	52.0	59	50.4	38	53.5	34	47.9
	25	100.0	117	100.0	71	100.0	71	100.0

3.3 Analysis of the Correlation between Teacher's Physical Sub-health and Physical Exercise

3.3.1 Weekly Exercise Times, Weekly Exercise Time, and Weekly Exercise Intensity

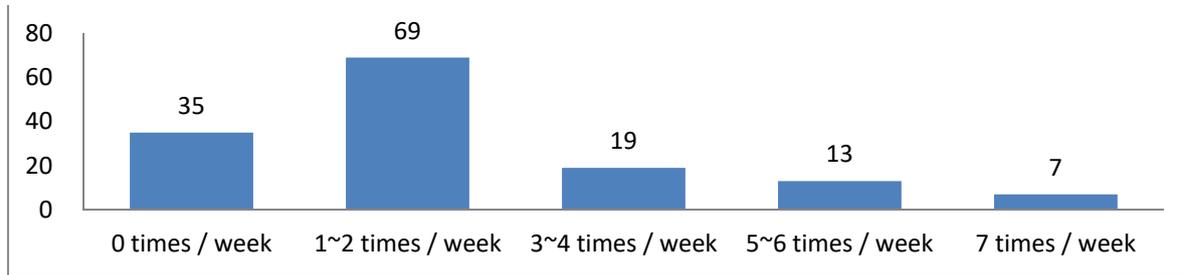


Figure 9. Number of physical exercises per week (person)

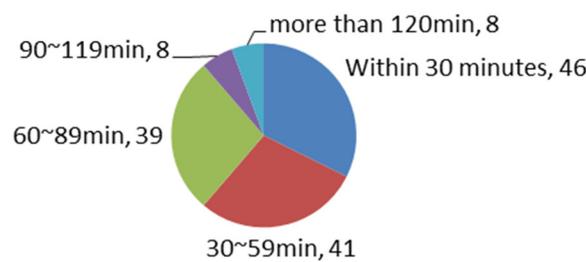


Figure 10. Each exercise time (person)

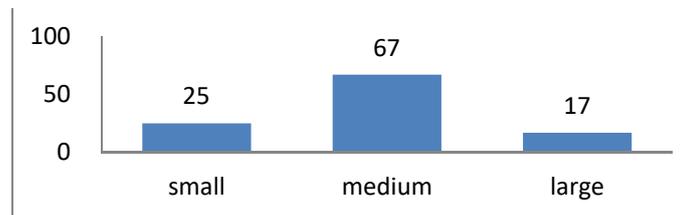


Figure 11. Each exercise intensity (person)

3.3.2 Sports Population

There is a huge gap between international standard and Chinese standard in determine the sports population. The feasible criteria in determine Chinese sports population should be: 1) 3 times of physical activity per week (including more than 3 times). 2) Each physical activity time is more than 30 minutes. 3) Every exercise intensity is above moderate. The detailed statistical results are shown in Table 14. According to the data, the sports population and the physical sub-health have a significant correlation with $R=0.0374$, which indicates the sports population is one of the factors affecting the sub-health of the body, and the non-sports population is more likely to suffer from sub-health than the sports population. Moreover, the chance of sub-health among non-sports group is 22.5% higher than sporting group, so a certain amount of exercise for a certain period of time is beneficial to reduce the chance of suffering from sub-health. In addition, the number of exercises per week, duration of each exercise, the intensity of each exercise is significantly correlated with sub-health. The R coefficient related to the sub-health status of the body ranked as: Weekly exercise times (0.0204)>every exercise time (0.0182)>every exercise intensity (0.0161). This is because physical exercise activities require long-term persistence to play their role, so significance level of correlation between times of exercise and sub-health condition is higher than that between sub-health and duration of exercise or intensity of exercise.

Table 14. Sports population and physical sub-health (N=142)

	Sports population		Non-sports population	
	N	%	N	%
Health	21	63.6	49	41.1
Physical sub-health	12	36.4	70	58.9
Total	33	100.0	119	100.0

3.4 Causes of Teacher's Physical Sub-health

The cause of teacher's sub-health can be classified into two categories: lifestyle and physical exercise. lifestyle mainly includes life, work habits, bad habits. Physical exercise mainly includes the number of exercises and time.

In terms of lifestyle: First, sleeping time is one of the factors that cause the sub-health of the body, and teachers suffer from low quality sleeping. Second, overnight habit is one factor influencing the sub-health of the body. Moreover, good working habits are beneficial to body health to a certain extent. Third, long hours of using electronic devices per day is not the cause of sub-health in the body; however, the total time spent on electronic devices per day is one of the factors that contribute to the increase in sleep-positive factors.

As regards to eating habits, irregular meals and improper diet can contribute to the sub-health status of the body and increase the rate of positive factors of digestive discomfort.

For bad habits, smoking and drinking alcohol are not one of the factors affecting the sub-health of the body.

In physical exercise habits, the number of exercises per week, duration of each exercise, and the intensity of each exercise are factors affecting the sub-health of the body, and the degree of correlation with the sub-health status of the body ranked as: Weekly exercise times>Every exercise time>Every exercise intensity. In addition, whether it belongs to the sports population is one of the factors affecting the sub-health of the body.

4. Conclusion

Firstly, the teacher's physical sub-health rate is 50.7%. The sub-health status of teachers' bodies is mainly presented in terms of fatigue and physical discomfort.

Secondly, the status of physical and sub-health of teachers in different basic situations:

Teachers of different colleges, genders, ages, academic qualifications, professional titles, and different teaching hours and teaching methods showed different physical and sub-health conditions. Among them, the rate of sub-health status among female teachers is much higher than that of male teachers. Professors have the highest sub-health rate. In addition, the teacher's sub-health incidence rate and class time amount are correlated with U shape. The teacher's sub-health rate among teachers with indoor media is higher than that of teachers with other methods. The probability of a teacher's sub-health status is positively correlated with the body mass index.

Finally, the main influencing factors of teachers' sub-health can be classified into the lifestyle and physical exercise, sleep problems, day and night habits, physical exercise, regular meals, proper diet, and whether it belongs to the sports population. \

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