## An Empirical Study on Factors Affecting the Professional Well-being of Physical Education Teachers in Colleges Based on Multiple Regression

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Abstract: School physical education is an important part of education, and the development of physical education is inseparable from the work of physical education teachers. Physical education teachers play a pivotal role in the physical condition and health of students, and the professional well-being of physical education teachers affects personal work conditions, the growth of healthy students and the development of school sports. This paper studies the factors affecting the professional well-being of physical education teachers in colleges based on multiple regression, analyzes the related concepts of well-being and teachers' professional well-being, and studies the importance of college physical education teachers' professional well-being. Physical education teachers as the survey object, compiled a questionnaire on the occupational well-being of physical education teachers in colleges, and analyzed the factors that affect physical education teachers' occupational well-being through multiple regression. The research results show that, in terms of interpersonal relationships, the overall situation is good. Physical education teachers get along best with students, but their relationship with leaders and colleagues at work is not optimistic; improve their professional well-being, which is conducive to the development of physical education teachers.

**Keywords:** Multiple Regression Analysis; College Physical Education Teachers; Occupational Well-Being; Influencing Factors

### 1. Introduction

The human society has developed to this day, and the globalization of science, technology, economy and culture has developed to a certain extent. The main problem is how to improve the overall quality of people. Therefore, all countries are paying attention to education, thinking about education, and improving education [1-2]. The professional well-being of teachers has been paid more and more attention, and people have also realized that the core and key to providing quality education is quality teachers. Only teachers who regard the educational process as a happy feeling process can achieve good educational effects [3-4].

At present, the research on the macro survey of teachers' occupational well-being has gradually matured at home and abroad. However, there are relatively few studies on the professional well-being of PE teachers. Some scholars use overall job satisfaction to survey 67 high school physical education teachers. The results showed that compared with male teachers, women had lower job satisfaction and well-being, their job well-being and satisfaction gradually increased with age, and overall, higher job satisfaction indicated happiness the higher the degree of sensitivity [5-6]. Some scholars take rural physical education teachers as research objects, and conduct investigations from five dimensions: material basis, security, love and belonging, self-esteem and self-realization [7-8]. Some researchers have studied college physical education teachers in terms of positive emotions, negative emotions and life satisfaction. The results show that teachers' well-being increases with professional qualifications. Teachers aged 31-40 have lower occupational well-being, and women are more likely to achieve well-being than men [9-10]. To sum up, the research period of teachers' occupational well-being at home and abroad is relatively short, but it has gradually aroused great attention and exploration of college teachers in academic circles.

On the basis of consulting a large number of relevant references, combining the related concepts of well-being and teachers' professional well-being, and studying the importance of college physical

education teachers' professional well-being, this paper takes the physical education teachers in several colleges in this province as the survey object, and compiles a comprehensive study of college physical education. Teachers' occupational well-being questionnaire was used to analyze the factors affecting physical education teachers' occupational well-being through multiple regression, and on this basis, relevant countermeasures to improve college physical education teachers' occupational well-being were put forward.

# 2. An Empirical Study on Factors Affecting the Professional Well-Being of Physical Education Teachers in Colleges Based on Multiple Regression

## 2.1 Well-Being and Teachers' Professional Well-Being

Literally, career well-being can be understood as the feeling that people can bring happiness through their work.

Teachers' professional well-being refers to the increase of happiness, pleasure and emotional experience created by teachers in the process of school education by striving to realize their ideals, potentials and self-esteem. Professional teachers can make students happy and achieve better grades. Therefore, the satisfaction of teachers is not only related to themselves, but also related to the growth and academic performance of students.

From the perspective of the professional well-being of physical education teachers, the professional well-being of physical education teachers specifically refers to the satisfaction of physical education teachers' personal needs and the experience of personal improvement in the process of physical education [11-12]. Physical education teachers with high occupational well-being can make students experience happiness and achieve better results than teachers with low occupational well-being.

## 2.2 The Importance of Studying the Professional Well-Being of Physical Education Teachers in Colleges

## (1) Improvement of teaching efficiency and academic level in colleges

With the rapid development of education in our country, the specialization of teachers is attracting attention, but at the same time, due to the increase of social pressure, changes in the work environment, and the individual's vague understanding of the purpose of learning, many teachers' professional identity feeling is getting lower and lower, which will affect the further improvement of its work efficiency, which will be related to the academic level development and education quality of the university. Improving teachers' professional well-being is an important prerequisite for effective teacher education. Improving teachers' professional quality can directly affect the development of school physical education and academic level. There are many studies on teachers' professional well-being that focus on teachers' professional well-being. The focus is on the basic education stage, but less attention is paid to the higher education stage, and there is a lack of time and geographical correlation, which shows that the professional well-being of physical education teachers lacks attention.

### (2) The needs of physical education teachers to improve their individual professional well-being

College PE teachers are under many occupational pressures to complete other topics such as educational papers, research papers, professional qualifications, postgraduate assessment, publication of academic performance, professional development and the teaching of other disciplines. It is necessary to have the ability to demonstrate professional skills and educational ability and to continuously improve, which also requires college physical education teachers to complete a certain amount of work in teaching, ensure physical reserves in a special outdoor working environment, and maintain energy concentration, which undoubtedly increases college sports. This leads to poor life well-being, loss of enthusiasm for work, and low educational efficiency, which affects students' well-being and academic performance. Improving the overall professional well-being of college teachers can provide valuable reference for the implementation of college physical education reform.

#### 3. Experiments

### 3.1 Design of the Questionnaire

This questionnaire is divided into three parts:

The first part is to learn basic information about teachers such as gender, job title, school type, grade and region, and income. There are 10 questions in total, and each question has many alternative answers. You need to choose the answer that best fits the situation, and then choose the answer that matches it.

The second part of this survey is to use foreign face scales to understand teachers' overall professional well-being. The scale is internationally recognized, with reliability and validity of around 0.7. In this article, we will use this intuitive choice of graphics to avoid textual bias and improve survey accuracy.

The third part is a single-choice question, and happiness is subjective. In order to improve the accuracy of the survey, this questionnaire contains 18 specific questions, involving some specific factors that affect the professional well-being of physical education teachers in colleges, and gives three choice of answers, namely agree, general, disagree.

### 3.2 Implementation of the Questionnaire

This paper conducts a questionnaire survey on 135 physical education teachers in several colleges in the province by distributing paper questionnaires on site and electronic questionnaires online. A total of 135 questionnaires were distributed and 133 were recovered, of which 130 were valid questionnaires, and the effective recovery rate was 96.3%.

### 3.3 Reliability and Validity Test of the Questionnaire

The so-called reliability is reliability. This means that subjects in the same group who are tested multiple times on the same test must have consistent scores. This can be analyzed from two aspects: stability and consistency of test results.

Stability: Indicates that repeated determinations of properties with the same measurement tool can yield consistent conclusions. There are generally two forms of measurement stability: one is test-retest reliability. The same questionnaire is used to measure the same group of people before and after different dates, and the correlation between the two scores is obtained. The correlation coefficient is also called Stability coefficient, high correlation coefficient indicates that the question is reliable; the other is double reliability, repetition means that two questions have the same content and the same difficulty. The correlation coefficient between the two scores is called the replication factor or equivalence factor. In fact, the correlation coefficient thus calculated is the equivalent coefficient.

Consistency: In the attitude test, the same attitude of both parties is usually reflected by the relevant data, so the consistency between the data is required, that is, the data consistency. Two types of measurement agreement: After completing the question, divide the question into two halves, and then evaluate the two separately, and then estimate the correlation coefficient of the total score of the two halves. This correlation coefficient is also called the split-half reliability coefficient; the other is Cronbach's alpha coefficient. The former is only used for general and standardized questionnaires. Because this paper is scored in multiple ways, Cronbach's alpha coefficient is used, and its formula is:

$$R_x = \rho_{x,T}^2 = \sigma_T^2 / \sigma_x^2$$
 (1)

$$\alpha = (K/K-1)(1-\sum S_i^2/S^2)$$
 (2)

In the formula,  $S_i^2$  represents the variance of all subjects' scores on item I,  $S_i^2$  represents the variance of all subjects' scores, and K is the number of items.

#### 4.Discussion

## 4.1 Relationships

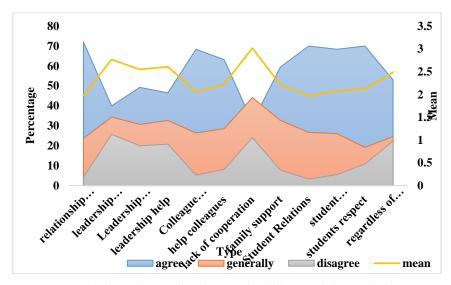


Figure 1. Interpersonal relationship and professional well-being of physical education teachers in colleges

As can be seen from Figure 1, from the mean of each item, the mean of lack of cooperation is slightly higher than the theoretical median, and the rest of the data are lower than the theoretical median, indicating that physical education teachers have a high level of happiness in interpersonal relationships. In the column of agreement, the percentage of harmonious relationship is the highest at 72.1%, followed by the percentage value of student relationship and respect of students, at 70%; but only 31.8% of physical education teachers believe that the cooperative relationship in their work is good at the same time, only 40% of teachers believe that they have a good relationship with their leaders, and only 46.5% of teachers believe that they can get help from their superiors when they encounter problems at work. In terms of interpersonal relationships, overall it seems to be good. Physical education teachers and students are doing better, but relationships with workplace leaders and colleagues are less than positive. College PE teachers felt that they lacked leadership help and encouragement in their work and had no real collaboration with their colleagues. Schools and related education departments need to improve professional well-being by improving physical education teachers' interpersonal relationships and the social environment of the physical education teaching profession.

### 4.2 Dimensional Analysis of Effectiveness

Table 1. Sense of effectiveness and professional well-being of physical education teachers in colleges

|                      | agree | generally | disagree | mean |
|----------------------|-------|-----------|----------|------|
| mission completed    | 70.2  | 23.4      | 6.4      | 2.06 |
| classroom effect     | 63.5  | 31.7      | 4.8      | 2.18 |
| student's result     | 57.0  | 36.6      | 6.4      | 2.32 |
| Specialty play       | 49.8  | 37.4      | 12.8     | 2.52 |
| student growth       | 68.4  | 23.6      | 8.0      | 2.09 |
| promotion evaluation | 32.2  | 40.8      | 27.0     | 2.94 |

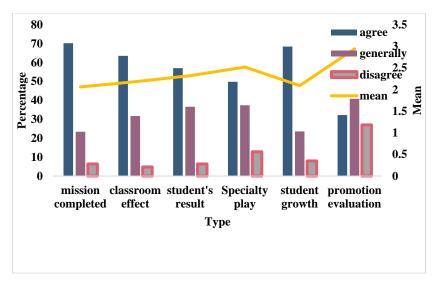


Figure 2. Sense of effectiveness and professional well-being of physical education teachers in colleges

This paper analyzes teachers' sense of work effectiveness through the above six aspects, and reflects the professional well-being of physical education teachers through the sense of effectiveness. It can be seen from Table 1 and Figure 2 that the sense of effectiveness of college physical education teachers is higher than the theoretical median value of 3. From the perspective of effectiveness, teachers' professional well-being is in a relatively happy state. The scores of physical education teachers' sense of effectiveness in teaching work are in a relatively happy state, teachers can successfully complete teaching tasks, and have a high sense of accomplishment for their own teaching effects and the improvement of students' performance. From this, it can be analyzed that physical education teachers in colleges are more effective, promote professional happiness, and contribute to the development of physical education teachers.

# 4.3 Countermeasures to Improve the Professional Well-Being of Physical Education Teachers in Colleges

## (1) Establish correct professional values

Teachers' occupational stress has a great impact on teachers' well-being. This is like a double-edged sword, which can be used by teachers and can also be used against teachers. Therefore, college teachers should correct their spirits, correctly understand their responsibilities and values, face this sacred work with gratitude, form a scientific view of seeking, and achieve new goals. In a word, college teachers need to continuously improve their own values and make their psychological needs match the needs of the school and society in order to experience the joy of work. Only when teachers establish correct and appropriate professional values, can they be a teacher in colleges. Occupational lifestyles generate identity, create strong spiritual power, always pursue the ideal of higher education, and enjoy the happiness of pursuing ideals.

## (2) Create harmonious interpersonal relationships

Harmonious interpersonal relationships are the basis for building a harmonious campus. A harmonious campus is full of laughter and care. It is a good campus environment where teachers and students live in harmony, support and respect each other. Harmonious interpersonal relationships are also an important factor affecting teachers' professional well-being. Leaders should increase their concern for teachers, and should not be high above them, making teachers feel untouchable and incommunicable; teachers should also establish a balanced relationship of fraternity and harmony, and should not be isolated and uncooperative; teachers and students should be both teachers and students. Yiyou, timely understand students, care for students, establish a correct view of teachers and students, love and respect students, treat students fairly, learn to appreciate students, communicate with students more, strive to improve self-cultivation, and improve personality. To be objectively evaluated and respected by society. Schools need to provide a platform for teachers to communicate with leaders, colleagues, staff, teachers and students. This allows university teachers to work in a happy and relaxed interpersonal environment at all times.

### (3) Develop a salary and welfare system to improve teachers' salaries

colleges can implement a modern enterprise salary management system and try to set performance wages for teachers in various positions. It is also necessary to link relevant conditions with performance management, and relate it to the completion of teaching and scientific research goals, the daily evaluation of the school and work performance, etc., to fully stimulate teachers' work, so as to exert their talents as much as possible. The school also strengthens teachers' welfare and humanistic care, and provides continuous care for specific groups such as the Spring Festival and other special festivals, which not only enhances the cohesion of teachers, but also feels the concern of the organization. Increase the placement of teachers' families and retain outstanding talents. Schooling the children of teachers not only keeps teachers from being distracted by children at home, but also increases a sense of collective belonging and makes their work worthwhile.

(4) Improve the evaluation and promotion mechanism to improve teachers' work emotions

A scientific and reasonable evaluation and promotion mechanism can play a motivating role. It enhances professional identity, interest in work and plays an important role in improving working conditions. The motivation is to encourage them to develop towards their desired goals. Colleges should improve talent assessment methods and establish a scientific vocational qualification assessment system to ensure that teachers receive the fairest and most reasonable assessment.

#### 5. Conclusion

The professional well-being of teachers is directly related to the cultivation of students and the long-term development of the school. Paying attention to the professional well-being of physical education teachers in colleges is not only conducive to the stability of the teaching staff, but also to the growth of students and the development of schools. The research in this paper will help to understand the current situation of the professional well-being of physical education teachers in colleges, stimulate teachers' self-reflection, and at the same time re-understand the value and importance of their profession. The society and colleges should pay attention to the professional well-being of physical education teachers, adjust management policies, and improve teachers' professional well-being.

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