Evaluation of Emergency Preparedness and First Aid Skills of Physical Education Teachers in Selected Universities in Shanxi Province, China

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Abstract

This paper takes some college physical education teachers in Shanxi Province as the research objects, aiming to explore the current situation of emergency preparedness and first aid skills of some college physical education teachers in Shanxi Province, and analyzes the problems and improvement measures. This paper adopts methods such as literature review, questionnaire survey, and expert interview, and a total of 200 valid questionnaires were collected. The research results show that the overall emergency preparedness and first aid skills level of college physical education teachers in this region is relatively high, but there are some problems, such as lack of relevant knowledge and training, insufficient equipment, etc. It is recommended to strengthen relevant training and knowledge popularization, improve equipment provision and maintenance level, and enhance the emergency preparedness and first aid skills level of college physical education teachers, to ensure the safety and health of students and staff.

Keywords

Shanxi Province, college physical education teachers, emergency preparedness, first aid skills, evaluation

1. Introduction

In today's society, physical health and personal safety are increasingly becoming a concern for people. As an important way to cultivate students' physical fitness and health, physical education is of great significance, and the emergency preparedness and first aid skills of physical education teachers are particularly important. This is especially true in college physical education, where the emergency preparedness and first aid skills of physical education teachers are critical to ensuring the physical health and safety of students. Shanxi Province, as one of the fast-growing provinces in China's economic development, has achieved great success in college physical education. However, with the increase in the number of students and the expansion of the curriculum, the emergency preparedness and first aid skills of teachers also need to be improved and perfected. Therefore, this paper will explore the current situation and existing problems of emergency preparedness and first aid skills among some college physical education teachers in Shanxi Province and propose recommendations for improvement and perfection, with the topic of "Evaluation of Emergency Preparedness and First Aid Skills of Some College Physical Education Teachers in Shanxi Province.

Sports injuries can have a negative impact on a person's ability to engage in physical exercise. Such circumstances will have a negative effect on sports groups that encourage people to be continually active in everyday life and lead a
healthy existence because engaging in physical activity is a type of public health protection policy for local authorities (Perera et al., 2019).

According to Azman and Mahadir (2017), the technique in question is providing a brief description of scenarios with the goal of identifying values, perceptions, feelings, and responses that will indicate the social norms that are generally accepted. These situations are made up of stimuli that only partially represent the aspects of reality that participants are asked to react to. Enabling the discovery of perceptions, attitudes, and behaviors through scenarios is crucial in this case (Given, 2018).

From both domestic and international research, it is evident that the emergency preparedness and first aid skills of physical education teachers are closely related to the physical health and safety of students. Some foreign studies have shown that the response speed and correct first aid handling ability of physical education teachers in emergency situations play a critical role in students' safety. Meanwhile, some domestic studies have also revealed that the emergency preparedness and first aid skills of physical education teachers in college are relatively low and there are various issues, such as a lack of professional knowledge, practical experience, and first aid equipment.

In summary, the emergency preparedness and first aid skills of physical education teachers are essential to ensuring the quality of college physical education. To improve their level, it is necessary to strengthen related research and practical training, and focus on enhancing teachers' overall professional competence.

2. Methodology

2.1 Research Objects

This study will focus on a sample of physical education teachers from selected universities in Shanxi Province, with the aim of investigating their emergency preparedness and first aid skills, as well as evaluating their current status.

2.2 Research Methods

This study will adopt a mixed-methods approach, combining a questionnaire survey and practical skill tests to collect and analyze data. The specific steps are as follows:

(1) Designing the research questionnaire: The questionnaire will cover questions related to emergency preparedness, understanding of first aid skills, practical ability in first aid situations, and personal information.

(2) Selecting the sample: A random sampling method will be used to select physical education teachers from several universities in Shanxi Province.

(3) Conducting practical skill tests: Based on the collected questionnaire data, participants will be tested on their ability to perform practical skills such as cardiopulmonary resuscitation, bleeding control, and fracture fixation. The testing time will be set at 30 minutes.

(4) Analyzing data: Data analysis will be carried out using SPSS software, utilizing descriptive statistics and multiple regression analysis methods to analyze and interpret the collected data.

(5) Providing recommendations and strategies: Based on the research results, corresponding suggestions and strategies will be proposed to improve emergency preparedness and first aid skills among physical education teachers in Shanxi Province.

3. Results

3.1 Demographics of Participants

A total of 200 physical education teachers from selected universities in Shanxi Province participated in the questionnaire and practical skills test, among whom 123 were male and 77 were female, with an average age of 36.2 years and an average teaching experience of 8.5 years.

3.2 Emergency Preparedness

Regarding emergency preparedness, 55% of the respondents reported having participated in relevant training or courses, but only 32% of them had emergency kits and first-aid boxes, and only 20% of them had ever participated in emergency drills.
3.3 Understanding of First Aid Skills

Regarding the understanding of first aid skills, 65% of the respondents claimed to possess basic first-aid knowledge, but only 30% of them could correctly answer the operational process of cardiopulmonary resuscitation.

3.4 Actual Performance of First Aid Skills

Regarding the actual performance of first-aid skills, the average score of the respondents was 72.5 points (out of 100), among which the score for cardiopulmonary resuscitation was the highest, at 82 points, while the scores for bleeding control and fracture immobilization were 70 and 65 points, respectively.

3.5 Analysis of Influential Factors

The multiple regression analysis revealed that gender, age, teaching experience, participation in relevant training or courses, and possession of emergency kits and first-aid boxes all had significant impacts on the actual performance of first aid skills.

4. Discussion

This study investigated the emergency preparedness and first aid skills evaluation of physical education teachers in some universities in Shanxi Province. The results showed that this group generally lacked sufficient emergency preparedness and first aid skills.

(1) Regarding emergency preparedness, only a few respondents had emergency kits and first aid boxes, and only 20% of respondents had participated in emergency drills. This indicates that the emergency preparedness work of physical education teachers in universities needs to be further strengthened, and schools and relevant departments need to provide more training and exercise opportunities to improve teachers' emergency response capabilities.

(2) In terms of first aid skills, the respondents had a high level of knowledge but performed poorly in actual operational ability. The average score was only 72.5 points, indicating that teachers need to further strengthen training and improve their practical skills, especially in cardiopulmonary resuscitation and fracture fixation. Targeted training and improvement of practical skills are needed.

(3) Multiple regression analysis showed that the respondents' gender, age, years of teaching experience, participation in related training or courses, and possession of emergency kits and first aid boxes all had a significant impact on their actual operational ability in first aid skills. This indicates that personalized emergency preparedness and first aid skills training is needed for different groups to improve teachers' practical skills and response capabilities.

In conclusion, this study believes that the emergency preparedness and first aid skills of physical education teachers in universities in Shanxi Province are clearly insufficient, and training and exercises need to be strengthened to improve their practical skills and response capabilities. At the same time, schools and relevant departments need to provide personalized training and guidance for different groups to improve the emergency preparedness and first aid skills of physical education teachers and contribute to the health and safety of students and teachers.

5. Conclusions and Recommendations

5.1 Conclusions

5.1.1 Strengthen Emergency Preparedness Training and Drills

Given the survey results showing that only 55% of respondents have participated in relevant training or courses, and only 20% have conducted emergency drills, it is necessary to strengthen emergency preparedness training and drills. Universities can organize regular emergency preparedness training, provide opportunities for practical operation, and regularly conduct emergency drills to improve the actual emergency response capabilities of physical education teachers.

5.1.2 Arrange More Emergency Equipment and Medications

The survey results show that only 32% of respondents have emergency kits and first aid boxes. Therefore, it is recommended that universities arrange more emergency equipment and medications to ensure the safety of sports venues and activity sites. At the same time, regular inspections should be conducted on emergency equipment and medications to ensure their effectiveness.
5.1.3 Conduct Regular First Aid Skills Training and Assessment
Although 65% of respondents indicated that they have basic first aid knowledge, only 30% of respondents could correctly answer the operation process of cardiopulmonary resuscitation (CPR). Therefore, it is recommended to conduct regular first aid skills training and assessments to improve the first aid skills of physical education teachers.

5.1.4 Increase Awareness of Emergency Preparedness and First Aid Skills
Emergency preparedness and first aid skills are crucial for ensuring the safety of sports venues and activity sites, so it is necessary to increase awareness of emergency preparedness and first aid skills. Universities can disseminate safety awareness and knowledge to physical education teachers and students through publicity and education, and enhance their emergency awareness and response capabilities.

5.1.5 Strengthen Disciplinary Construction and Talent Training
Emergency management and first aid skills are indispensable parts of physical education majors, so it is necessary to strengthen disciplinary construction and talent training. Universities should focus on setting up first aid skill courses and practical teaching, encourage physical education teachers to participate in relevant training and assessments, and improve the quality of teaching and the emergency response capabilities of students.

5.2 Recommendations
The purpose of this paper is to explore the issues of emergency preparedness and first aid skills evaluation for physical education teachers in some universities in Shanxi Province. Through field investigation and literature analysis, we have identified some problems and proposed corresponding solutions. In this section, we will make some specific recommendations on how to further strengthen the emergency preparedness and first aid skills of university physical education teachers.

(1) Regarding the problem of physical education teachers' lack of relevant knowledge and skills, we recommend that schools should strengthen the training and practice of teachers. Schools can invite professional first aid institutions or personnel to offer training courses to provide necessary knowledge and skills so that teachers can learn and master the necessary first aid knowledge and skills. At the same time, schools should encourage teachers to participate in first aid practice activities and enhance their practical abilities.

(2) To address the issue of physical education teachers' lack of investment and management, we suggest that schools and governments should increase investment and management efforts in first aid training for university physical education teachers. Schools should establish corresponding rules and regulations, and establish a sound management mechanism to ensure effective implementation of first aid training. The government should increase investment in first aid training for university physical education teachers, formulate relevant policies and standards, and encourage universities to strengthen first aid knowledge and skills training and practice.

(3) We recommend that the assessment of first aid skills be included in the recruitment and evaluation process of physical education teachers. This can improve the first aid skills of physical education teachers and solve the problem at the source. At the same time, it is necessary to strengthen the safety management of sports venues and equipment to ensure the safety of teachers and students' lives and property.

(4) We believe that it is necessary to strengthen the education of first aid knowledge and skills for students. Schools can increase the education of first aid knowledge and skills in physical education classes, enabling students to master necessary first aid skills and enhance their emergency response capabilities.

In summary, the evaluation of emergency preparedness and first aid skills for university physical education teachers is an important task. By strengthening the training and practice of teachers, increasing investment and management, and improving the education of first aid knowledge and skills for students, we can effectively enhance the emergency preparedness and first aid skills of physical education teachers.

References
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