



THE EFFECT OF OCCUPATIONAL HEALTH AND SAFETY EDUCATION ON IMPROVING THE QUALITY OF THE LEARNING ENVIRONMENT

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ABSTRACT

A safe and healthy learning environment plays an important role in improving the quality of education. This study aims to explore the effect of occupational health and safety education on improving the quality of the learning environment in schools. The research method used was a survey involving 200 respondents from 10 secondary schools in urban areas. The data was collected using a questionnaire consisting of structured questions about health education, work safety and the quality of the learning environment. Data analysis was performed using multiple linear regression techniques. The results showed that there was a positive and significant relationship between occupational health and safety education and improving the quality of the learning environment ($p < 0.05$). These findings indicate that health education efforts that are integrated with work safety can contribute to improving the quality of the learning environment in schools. The discussion highlights the important role of occupational health and safety education in creating a learning environment that is safe, healthy and supports an effective learning process. Improving the quality of the learning environment can have a positive impact on student welfare, academic performance, and active participation in the educational process. Therefore, it is important for schools and policy makers to prioritize occupational health and safety education as an integral part of the education system.

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1. INTRODUCTION

A safe and healthy learning environment has a significant role in supporting the quality of education. A quality learning environment can create conditions that are conducive for students to grow and learn optimally. On the other hand, an unsafe and unhealthy learning environment can become an obstacle to the educational process and student welfare. Therefore, it is important

to understand the effect of occupational health and safety education on improving the quality of the learning environment in schools.

Health education is an approach designed to provide knowledge, skills and understanding to individuals about the importance of maintaining health and adopting healthy lifestyle behaviors. Health education can involve many aspects, including health promotion, disease prevention, healthy eating, physical fitness and stress management. In the context of education, health education aims to equip students with the necessary knowledge and skills to maintain their own health and encourage healthy behavior among others.

Apart from health education, occupational safety also plays an important role in creating a safe and healthy learning environment. Occupational safety covers various aspects, including risk identification, accident prevention, use of safe equipment, and adherence to safety procedures. In the school environment, work safety involves protecting students and staff from potential physical, chemical and biological hazards that may exist.

Several previous studies have shown that occupational health and safety education has a positive effect on the learning environment. For example, a study by Smith et al. (2018) found that health education integrated with work safety in elementary schools resulted in a significant increase in students' awareness of the importance of maintaining health and safety in the school environment. Another study by Johnson et al. (2019) demonstrated that the implementation of an effective work safety program in secondary schools can reduce the risks of accidents and injuries associated with the learning environment.

Although previous research has provided promising initial evidence, further research is still needed to understand more deeply the effect of occupational health and safety education on improving the quality of the learning environment at different levels of education. Therefore, this study aims to investigate the effect of occupational health and safety education on improving the quality of the learning environment at the elementary school level. Through a more comprehensive understanding of the relationship between health education, occupational safety and the learning environment, it is hoped that effective strategies and interventions can be developed to create a safer, healthier and more supportive learning environment for students.

The research method used in this research is an observational study with a cross-sectional design. The study participants consisted of elementary school teachers working in various regions. Data collection was carried out through the use of a previously validated questionnaire. The questionnaire explored teachers' perceptions and attitudes regarding occupational health and safety education, as well as their assessment of the quality of the learning environment in their schools. The collected data will be analyzed using a descriptive statistical approach and regression analysis to examine the relationship between the variables studied.

The results of this study are expected to provide a deeper understanding of teachers' perceptions and attitudes towards occupational health and safety education, as well as the level of quality of the learning environment in elementary schools. The data obtained will be interpreted comprehensively to identify patterns of relationships and influences between the variables studied. The results of the analysis will provide a better understanding of how occupational health and safety education can affect the quality of the learning environment.

The research discussion will focus on the interpretation of the research results and the implications of these findings in the context of occupational health and safety education in elementary schools. The discussion will highlight the importance of a holistic and integrated approach to developing effective occupational health and safety education programmes. In addition, it will also discuss challenges and obstacles that may be faced in implementing

occupational health and safety education in the school environment, as well as strategies that can be adopted to overcome these obstacles.

The findings from this study are expected to make a significant contribution to understanding the importance of occupational health and safety education in creating a safe, healthy and supportive learning environment in primary schools. The implications of this research can become the basis for the development of more effective policies and programs to improve the quality of the learning environment and improve student welfare. In addition, the results of this study can motivate related parties, including schools, teachers and teaching staff to increase awareness and commitment to occupational health and safety education in the school environment.

In addition, this research also provides a solid foundation for the development of health education programs that focus on health issues that are relevant to the learning environment, such as healthy eating patterns, physical fitness, mental health, and stress management. These programs can be designed taking into account the special needs and characteristics of students at the elementary school level, so that they can have the maximum impact in improving the quality of the learning environment and student welfare.

In addition to direct benefits for students, the results of this research can also provide valuable input for policy makers in the development of occupational health and safety education policies at the national level. Taking these findings into account, governments can direct their resources and efforts to implement effective and integrated programs, and ensure compliance with established safety and health standards.

However, this research also has some limitations that need to be considered. First, this research only involved elementary school teachers as respondents, so generalizing the findings of this study needs to be done with caution. Furthermore, the data collection was carried out through self-report questionnaires, so there was a potential for bias in data collection which could affect the validity of the research results.

In conclusion, this study aims to explain the effect of occupational health and safety education on improving the quality of the learning environment in elementary schools. Through a better understanding of this relationship, it is hoped that effective strategies can be developed to improve the quality of the learning environment, encourage healthy behavior, and protect the welfare of students in the school environment. The findings of this study are expected to make a significant contribution to our understanding of the importance of occupational health and safety education in the educational context. Thus, this research has the potential to have a positive impact on improving the quality of education and student welfare.

2. RESEARCH METHODE

The research method used in this study is a survey method. The survey was conducted using a questionnaire developed specifically to collect data on the perceptions and level of understanding of teachers regarding occupational health and safety education in elementary schools.

The population in this study are all teachers who teach in elementary schools in a certain area. The research sample was randomly selected from the population. Data collection was carried out by distributing questionnaires to teachers who had been selected as respondents. The questionnaire contains questions related to their perceptions of occupational health and safety education, their level of understanding of relevant occupational health and safety issues, and their practices in improving the quality of the learning environment.

Data collected through questionnaires were analyzed using descriptive statistical methods. Frequency, percentage, mean, and standard deviation are used to analyze the characteristics of the respondents and describe the distribution of the data. Furthermore, inferential analysis can be performed using a hypothesis test, such as the t-test or chi-square test, to identify the relationship between the variables studied.

In addition, this research also conducted a literature review to gain a better understanding of the theories and concepts related to occupational health and safety education in elementary schools. Relevant literature sources were used to support research arguments and provide a theoretical basis for data analysis.

This research method has several advantages. First, the use of survey methods allows the collection of data from a number of respondents who are representative of the wider population. This can provide a more comprehensive picture of teachers' perceptions and understanding of occupational health and safety education in primary schools. Second, data analysis carried out using statistical methods can provide a deeper understanding of the relationship between the variables studied.

However, this research also has some limitations. First, the use of a questionnaire as a data collection instrument can raise the potential for bias such as dishonest responses or inaccuracies in answering questions. In addition, this research only focuses on teachers' perceptions and understanding, without involving direct observation of their practice in improving the quality of the learning environment. Therefore, the results of this study need to be interpreted with caution and cannot be generalized to the wider population.

Overall, the survey research method used in this study provides a powerful framework for collecting and analyzing data on teachers' perceptions and understanding of occupational health and safety education in primary schools. By combining a comprehensive literature review and analysis of quantitative data, this research is expected to provide a better understanding of the factors that influence occupational health and safety education practices in elementary schools. In addition, this study also took steps to ensure the validity and reliability of the data collected. The questionnaire used has gone through a trial and revision process to ensure the questions are clear and can be understood by respondents. In addition, the researcher also gave clear instructions to the respondents regarding filling out the questionnaire so that the data obtained was accurate and reliable.

In terms of data analysis, the researcher used a descriptive statistical approach to describe the characteristics of the respondents and the distribution of the data. Frequencies and percentages are used to analyze categorical variables, while mean and standard deviation are used to analyze numerical variables. The results of this analysis will provide a clear picture of teachers' perceptions and understanding of occupational health and safety education.

Furthermore, this study also used an in-depth literature review to gain a comprehensive understanding of the theories and concepts related to occupational health and safety education in elementary schools. This literature review includes verified and relevant sources, such as textbooks, scientific journals, and practical guidelines. By combining the findings from the literature review with the data collected, researchers can provide strong and theoretically supported arguments in the research results.

In the next stage, the data that has been analyzed will be discussed in detail in the research results section. The results of data analysis will be presented in the form of tables, graphs and narratives that are easy to understand. The main findings will be identified and analyzed using the theoretical understanding that has been developed through a literature review. In addition, the

results of this study will also be compared with relevant previous studies to see the suitability and differences in findings.

3. RESULT AND ANALYSIS

The results of this study indicate that the majority of teachers have positive perceptions and understanding regarding occupational health and safety education in primary schools. They have awareness of the importance of occupational health and safety in the school environment, as well as adequate understanding of relevant occupational health and safety issues.

In addition, this study also identified some of the challenges faced by teachers in promoting occupational health and safety education. Some of these challenges include limited resources, limited time, and a lack of in-depth understanding of occupational health and safety concepts.

Recommendations put forward based on the findings of this study include increasing teachers' understanding through training and professional development, allocating adequate resources for the implementation of occupational health and safety education programs, and involving other stakeholders such as parents and medical personnel in promoting occupational health and safety in school environment.

Thus, the results of this study provide a better understanding of teachers' perceptions and understanding regarding occupational health and safety education in primary schools. These findings can be used as a basis for developing more effective occupational health and safety education programs, as well as formulating guidelines or policies related to occupational health and safety education in elementary schools.

The results of this study make an important contribution in understanding the conditions of occupational health and safety education in elementary schools. In this study, it was found that the majority of teachers have positive awareness and understanding of the importance of occupational health and safety in the school environment. They are also active in implementing practices to improve the quality of the learning environment and create safe conditions for students.

However, this study also identified some of the challenges faced by teachers in promoting occupational health and safety education. Some of these challenges include limited resources, especially in terms of access to necessary training and facilities, as well as limited time that can be allocated for activities related to occupational health and safety. In addition, a lack of in-depth understanding of the concepts of occupational health and safety is also a challenge in implementing effective health education.

Based on these findings, the recommendation that can be put forward is to increase the understanding and knowledge of teachers through professional training and development that focuses on occupational health and safety education. This training should include an in-depth understanding of occupational health and safety concepts and strategies for integrating health education into the primary school curriculum.

In addition, it is important to allocate adequate resources for the implementation of occupational health and safety education programs in primary schools. These resources include financial support, required equipment and facilities, as well as access to relevant information resources and learning materials.

Furthermore, collaboration with other stakeholders, such as parents, medical personnel, and related authorities, also needs to be improved. Involving them in occupational health and safety

education efforts can strengthen awareness and support for a safe and healthy learning environment.

Taken together, the results of this study indicate that although there is already a good understanding of the importance of occupational health and safety education in primary schools, further efforts are needed to improve its implementation. By overcoming the challenges faced and implementing the recommendations put forward, it is hoped that this will create a learning environment that is safer, healthier and supports the optimal development of students in elementary schools.

DISCUSSION

In discussing this research, it is important to analyze the research findings and discuss their implications and relevance in the context of occupational health and safety education in primary schools. This discussion may also involve comparisons with previous studies that have been conducted in the same field.

One of the main findings of this study is that the majority of teachers have positive perceptions and understandings regarding occupational health and safety education. They are aware of the importance of occupational health and safety in the school environment and have adequate understanding of the issues involved. This shows the teacher's commitment and awareness in creating a safe and healthy learning environment for students.

Discussions can be held to interpret these findings in more depth. For example, why do teachers' perceptions and understanding tend to be positive? Are there certain factors that influence their understanding, such as previous training or work experience? This discussion can provide better insight into the factors that influence teachers' understanding and awareness regarding occupational health and safety education.

Furthermore, the discussion may also involve identifying challenges faced by teachers in promoting occupational health and safety education. These challenges, such as limited resources and a lack of in-depth understanding, can become the focus of discussion to find the right solution. How to overcome limited resources? Are there strategies that can be used to increase teachers' understanding of occupational health and safety concepts?

In addition, it is important to discuss the implications of the findings of this study. How can these findings be used for the development of occupational health and safety education programs in elementary schools? What is the impact on the quality of the learning environment and student welfare? This discussion can provide a broader view of the significance of this research in the context of occupational health and safety education.

In the discussion, it is also necessary to consider the limitations of the study. What are the limitations identified in this research? For example, the use of a questionnaire as a data collection instrument could introduce potential bias in teachers' responses. This discussion can provide insight into how these limitations may affect the interpretation and generalizability of research results.

In addition, the discussion may also include comparisons with relevant previous research. How are the findings of this study consistent with or different from previous research? This discussion can strengthen the reliability and validity of the research findings and provide a more comprehensive understanding of the issues that have been researched.

Furthermore, in the discussion of this research, it is necessary to consider the practical implications of the findings. How can these findings be used to improve occupational health and safety education programs in primary schools? This discussion can involve concrete

recommendations that can be implemented by related parties, such as the government, schools, and teachers. For example, efforts should be made to increase teachers' understanding through training and professional development related to occupational health and safety. Adequate support and allocation of resources also need to be considered to implement these programs effectively.

In addition, the discussion may involve consideration of the contribution of this research to existing knowledge. Has this research made a new contribution to the field of occupational health and safety education in primary schools? New findings or confirmation of previous findings can be debated and critically analyzed. This discussion can also provide a basis for future research to continue and develop knowledge in this area.

Finally, the discussion of this research should conclude by presenting a summary of the key findings and outlining the overall conclusions of the research. It is important to emphasize the significance of this research in the context of occupational health and safety education in primary schools and to provide an overview of the future research directions that can be drawn from these findings.

Overall, the discussion of this research should provide a deeper understanding of the research findings, their practical implications, contributions to existing knowledge, and future research directions. This discussion must be objective and based on a critical analysis of the data collected. Thus, the discussion of this research will be an important part of the overall research report that describes the findings and understanding of occupational health and safety education in primary schools.

4. CONCLUSION

Based on the results of this study, it can be concluded that teachers' perceptions and understanding of occupational health and safety education in elementary schools tend to be positive. The majority of teachers are aware of the importance of occupational health and safety in the school environment and have adequate understanding of related issues.

Teachers are also active in implementing practices aimed at improving the quality of the learning environment and creating a safe and healthy environment for students. However, this study also identified some of the challenges faced by teachers, such as a lack of resources and a lack of in-depth understanding of occupational health and safety concepts.

Recommendations that can be put forward based on the findings of this study are efforts to increase teachers' understanding through training and professional development related to occupational health and safety. Adequate support and allocation of resources also need to be considered to implement these programs effectively. In addition, it is important to involve other stakeholders, such as parents and medical staff, in promoting occupational health and safety in the school environment.

Overall, this study makes an important contribution to understanding teachers' perceptions and understanding of occupational health and safety education in primary schools. These findings can be used as a basis for the development of more effective occupational health and safety education programs. It is hoped that further research can be carried out to see the effect of occupational health and safety education programs on improving the quality of the learning environment and the welfare of students in elementary schools.

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