

SAFETY OF LIFE AND OCCUPATIONAL HEALTH IN PRIMARY EDUCATION INSTITUTIONS: MODERN CHALLENGES AND WAYS TO OVERCOME THEM

IRYNA BILOUS¹

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¹ West Ukrainian National University,
Ternopil
Ukraine

Contact: Assoc. prof. Iryna Bilous – 1982bilous@gmail.com.

Abstract:

The article examines the theoretical and practical aspects of ensuring life safety and occupational health in primary education institutions. Modern challenges are analyzed, including physical, psychological, and informational threats to participants in the educational process. The main issues related to compliance with regulatory requirements, the state of material and technical resources, the organization of evacuation measures, the prevention of bullying, and cyber threats are outlined. The study explores international experience in ensuring a safe educational environment and the possibilities of its adaptation. Effective measures for improving the security system in primary schools are proposed, including the integration of relevant knowledge into educational programs, the professional development of teachers, and active cooperation with parents.

Keywords: life safety, occupational health, primary education, physical safety, psychological safety, bullying, evacuation, regulatory compliance.

INTRODUCTION

The safety of life and occupational health in primary education institutions is one of the most critical components of the educational process, as it directly affects the physical, psychological, and emotional well-being of all participants in the educational environment. Ensuring safe learning and working conditions in schools is not only a legal requirement but also a necessary prerequisite for an effective educational process. Given this, studying modern challenges and finding ways to address them within the primary education system is of particular relevance.

The relevance of this issue is driven by several factors, including constant changes in the regulatory framework, increasing physical and psychological stress on children and teachers, the impact of information technologies, as well as global risks associated with pandemics, environmental disasters, and other emergencies. The lack of proper control over the condition of school premises, insufficient equipment, and non-compliance with safety regulations can lead to accidents involving students and teaching staff. Of particular concern are deficiencies in evacuation procedures and the insufficient awareness of both children and school personnel regarding emergency response protocols.

The psychological aspect of safety also requires special attention, as modern students face challenges such as bullying, cyber threats, emotional burnout, and psychological stress. The lack of an effective system to prevent psychological violence can have serious negative consequences for children's mental health. Furthermore, primary school staff often experience significant emotional strain, which can lead to professional burnout and a decline in the quality of the educational process.

The purpose of this article is to analyze contemporary challenges in the field of life safety and occupational health in primary education institutions, identify key issues, and propose effective solutions to address them.

This study is based on the analysis of scientific literature, legal documents, sociological surveys, and the practical experience of educators. The findings may be useful for school administrators, teachers, parents, and other stakeholders striving to create a safe and comfortable learning and working environment in primary schools.

Thus, ensuring life safety and occupational health in primary education institutions is a crucial task requiring a systematic approach, the involvement of all educational stakeholders, and the implementation of effective protection mechanisms. The following sections of the article will provide a detailed analysis of key challenges and practical recommendations for their resolution.

THEORETICAL ASPECTS OF LIFE SAFETY AND OCCUPATIONAL HEALTH IN PRIMARY EDUCATION INSTITUTIONS

Life safety and occupational health are key aspects of ensuring a healthy and secure educational environment in primary education institutions. In an international context, these concepts encompass a wide range of measures aimed at protecting students and staff from various hazards that may arise during the educational process.

The concept of «life safety» in the educational environment implies the creation of conditions that ensure the physical, psychological, informational, and social well-being of students [2]. This includes injury prevention, the provision of healthy learning conditions, and fostering a culture of safety among children. On the other hand, «occupational health» focuses on ensuring safe working conditions for teaching and administrative staff, including the prevention of occupational diseases and injuries.

In primary education institutions, ensuring life safety and occupational health is essential for creating a favorable and secure educational environment. The concept of «life safety» covers a system of knowledge and practical skills aimed at protecting children's lives and health from various dangers in the course of their activities [4]. The goal of life safety education is to develop a culture of safety, which includes an understanding of the types of hazards and ways to prevent them. V.M. Pokaliuk, in his article «Theoretical Foundations of Life Safety Education in Ukraine's Educational Institutions», thoroughly examines the content of this concept and its implementation in the educational process [12].

Occupational health in primary education institutions concerns the creation of safe and healthy working conditions for teaching and other staff, the prevention of occupational diseases, and the reduction of workplace injuries. This includes the implementation of relevant norms and standards, regular staff training on safety issues, and the provision of necessary personal protective equipment. Another crucial aspect is psychological safety, which involves creating a supportive and friendly atmosphere in the workplace that contributes to both effective teaching and children's development.

The formation of a safe educational environment requires a comprehensive approach, including physical, psychological, and social safety. Physical safety ensures proper learning and recreational conditions, compliance of school facilities with sanitary and hygienic norms, and the availability of necessary equipment and materials. Psychological safety relates to supporting students' emotional well-being, preventing bullying, and addressing other destructive

behaviors. Social safety encompasses interactions with parents, the community, and other stakeholders to create a supportive environment.

In the article «A Safe Educational Environment in Preschool Institutions», N.V. Viktorchuk [8] analyzes the conditions for forming a secure environment, highlighting the main types of threats and risks while offering practical recommendations for their mitigation. The author emphasizes the importance of integrating all safety components to achieve effective results.

Under martial law, the issue of physical safety becomes especially relevant, requiring additional measures such as the provision of shelters, alarm systems, and appropriate training for staff and students. In the article «Creating a Safe Educational Environment in Educational Institutions Under Martial Law», T. Sobchenko [11] examines specific challenges and suggests ways to overcome them.

Thus, ensuring life safety and occupational health in primary education institutions is a multifaceted process requiring a comprehensive approach that includes physical, psychological, and social aspects. This necessitates constant attention, resources, and cooperation among all participants in the educational process.

Internationally, different countries have varying approaches to regulatory support for safety in educational institutions. For instance, in the United States, the Safe and Drug-Free Schools Act provides funding programs aimed at ensuring student safety. In the United Kingdom, the Health and Safety at Work Act requires employers, including schools, to ensure safe working conditions for all employees and students. In European Union countries, school safety issues are regulated both nationally and at the EU level through occupational health and safety directives.

In Ukraine, life safety and occupational health in educational institutions are regulated by the Law of Ukraine «On Occupational Health», the Law of Ukraine «On Education» and various subordinate legal acts that establish requirements for safe learning and working conditions. In 2017, the Ministry of Education and Science of Ukraine, in cooperation with UNICEF, developed the «Safe School» concept. According to its authors, the school should serve as a hub where children receive comprehensive support and assistance in difficult life situations, contributing to the resilience of all participants in the educational process. A «safe space» in an educational institution is defined as an environment where: all participants in the educational process are respected and protected; a system of mutual support is established, and relationships are built on care, empathy, and equality; discrimination based on gender, age, nationality, religion, or

social status is absent; all forms of violence are prevented through appropriate resources; and social, psychological, informational, and physical safety standards are upheld» [13].

In many countries worldwide, school safety is a priority area of public policy. For example, in Japan, schools regularly conduct evacuation drills and emergency preparedness training for events such as earthquakes. This helps students develop quick response skills to hazards and enhances overall school safety. In Finland, known for its high-quality education system, great emphasis is placed on creating a safe and supportive educational environment for students. This is achieved through the integration of safety issues into curricula, teacher training, and active parental involvement in school life.

Thus, life safety and occupational health in primary education institutions are crucial aspects influencing the quality of the educational process and the overall well-being of students and staff. International experience demonstrates that a systematic approach to safety, the integration of relevant topics into curricula, and the active participation of all stakeholders are key success factors. The adaptation of these practices in schools can contribute to creating a safe and supportive educational environment.

MAIN CHALLENGES AND ISSUES OF LIFE SAFETY AND OCCUPATIONAL SAFETY IN PRIMARY EDUCATION INSTITUTIONS

Ensuring a safe educational environment in primary education institutions is a crucial component of a high-quality educational process. According to international and national legal frameworks, including the Law of Ukraine «On Education» and the State Sanitary Norms and Rules for the Maintenance of General Education Institutions, educational establishments are required to create conditions that guarantee the physical, psychological, and informational safety of students and teaching staff. However, in practice, the implementation of these norms faces several challenges related to material and technical support, organizational aspects, and the awareness level of educational process participants regarding safety measures. Let us examine these aspects in more detail.

The physical safety of students is a fundamental component of ensuring security within educational institutions, as students must be protected from injuries and accidents at every stage of the educational process. Key aspects of physical safety include the condition of facilities, sanitary and hygienic conditions, and the organization of evacuation procedures.

The condition of facilities encompasses compliance with building regulations, ensuring that classrooms, corridors, and other premises meet safety requirements. It is also necessary to consider the availability of emergency exits, adherence to lighting, ventilation, and temperature standards, as well as the state of electrical systems. The lack of proper control over facility conditions can lead to accidents such as falls, gas poisoning, or electrical injuries. According to regulatory documents, particularly the State Sanitary Norms and Rules for General Education Institutions [3], facilities must meet specific sanitary and hygienic requirements. Therefore, regular inspections of the technical condition of buildings are a vital component of educational institution activities.

Sanitary and hygienic conditions in the educational environment are also crucial. Since children spend most of their time in school, conditions must be optimal for their health. Violations of sanitary norms can lead to the spread of infectious diseases among students, negatively affecting their health. According to sanitary and hygienic regulations, schools must ensure proper cleanliness, ventilation, lighting, and timely disinfection measures.

Evacuation procedures in educational institutions are a critical aspect of students' physical safety. In the event of emergencies, it is essential that students and staff know the necessary actions and have access to evacuation exits. Problems in evacuation processes often arise due to insufficient training drills and a lack of clear organization.

Psychological safety includes aspects such as protection from bullying, support for children's emotional well-being, and proper interaction with teachers and parents. Since primary school education is a crucial stage of socialization, the level of psychological comfort determines not only academic achievements but also students' overall health.

Bullying remains one of the primary threats to students' psychological safety. It can manifest in various forms, including verbal, physical, social, or cyberbullying. The issue of school bullying is a global social problem. International PISA studies have measured the level of bullying by analyzing responses from affected students regarding the frequency of bullying incidents over the past 12 months. The research has shown that in many countries, the most common forms of bullying are verbal and physical abuse [6].

A crucial condition for combating bullying is creating an educational environment that fosters empathy, mutual respect, and tolerance. Norway was among the first countries to actively develop an anti-bullying program in the late 20th century. Thanks to the efforts of psychologist Dan Olweus, the Olweus Bullying Prevention Program (OBPP) was introduced and later adopted in other

countries such as the USA, Canada, Germany, Sweden, and Finland. The program was initially developed in response to tragic cases of suicide among Norwegian teenagers due to bullying. Research involving 40,000 students over two and a half years demonstrated its effectiveness. In 2001, OBPP was recognized as a national program for preventing juvenile delinquency. The program's goals include reducing existing bullying issues, preventing new cases, and improving peer relationships [5]. In Finland, the «KiVa» program has been implemented to prevent school bullying, showing significant effectiveness in reducing violence among students. In Ukraine, the issue of bullying is legally regulated by Law № 858-VIII «On the Prevention and Counteraction of Bullying», which provides specific measures to address this problem.

The emotional state of children is another vital component of psychological safety. Psychological well-being directly affects student's learning abilities. According to research by the American Academy of Pediatrics, stress and anxiety can negatively impact children's cognitive development [10]. Teachers play a crucial role in supporting students' emotional health by creating a learning atmosphere in which children feel secure and confident.

Interaction with teachers and parents is a key factor in children's psycho-emotional development. Deficiencies in this interaction can lead to socialization difficulties and reduced motivation for learning. Constructive, open, and supportive communication ensures the harmonious development of children.

Informational safety is becoming increasingly relevant with the advancement of digital technologies. Researcher N. Kyrylenko highlights that the informatization of education significantly affects individuals, creating new challenges in ensuring informational security [7]. The Internet provides vast educational opportunities but also presents serious risks, including cyberbullying, exposure to harmful content, internet addiction, and privacy issues. According to a World Health Organization study, cyberbullying is a major concern among teenagers, potentially leading to mental health disorders.

To ensure student's informational safety, educational institutions must conduct training on safe internet use and establish clear rules to limit access to harmful content. Internet usage guidelines should be integrated into the learning process, encompassing both technical security measures and educational programs to increase students' awareness of digital risks. Existing legal frameworks, such as the Law of Ukraine «On Personal Data Protection» and the Law «On the Basic Principles of Cybersecurity», establish a legal foundation for protecting children's data in the digital space.

Occupational safety for teaching staff is equally important in ensuring a secure

educational environment. Teachers face various occupational risks, including physical strain, psychological stress, and emotional burnout. These risks may include musculoskeletal disorders due to prolonged standing, as well as health issues related to working in noisy environments, poor lighting, or inadequate ventilation. Regular medical check-ups, workplace condition adjustments, and physical activities can mitigate health risks for teachers.

Workload-related stress, large class sizes, high performance expectations, and insufficient administrative support can contribute to professional burnout. According to studies by the American Psychological Association, burnout is one of the leading reasons why educators leave the profession [1]. To maintain teacher's well-being, support systems must be implemented, including psychological assistance, workload reduction, and the creation of a positive working environment.

Psychological comfort in teachers' work is also a significant aspect of occupational safety. Establishing a supportive psychological climate within the teaching staff, promoting professional development, and ensuring opportunities for relaxation and stress relief help prevent burnout and enhance teacher's effectiveness.

WAYS TO OVERCOME PROBLEMS AND IMPROVE SAFETY AND OCCUPATIONAL HEALTH STANDARDS

The issues of life safety and occupational health in primary education institutions are multifaceted and require a comprehensive approach to their resolution. From the physical safety of students to the mental health support for teachers, each aspect demands attention and appropriate measures to ensure safety and comfort in educational institutions. Ensuring life safety and occupational health in primary schools is a complex task that requires the implementation of various measures. These include organizational and methodological actions, the use of modern technologies, the development of a safety culture among students, and active cooperation between schools, parents, and public organizations.

Organizational and methodological measures are the foundation for creating a safe educational environment. They include thorough planning, conducting briefings, and training for all participants in the educational process. According to the Ministry of Education and Science of Ukraine, the goal of these measures is to enhance the theoretical and methodological training of officials on occupational health and life safety issues. This not only ensures compliance with

regulatory requirements but also creates conditions for an effective response to potential threats.

The use of modern technologies significantly enhances safety in educational institutions. In particular, the implementation of video surveillance systems, electronic access control systems, and specialized mobile applications promotes operational monitoring of situations and rapid responses to potential incidents. Research shows that the integration of digital technologies into the educational process has its particularities, advantages, and disadvantages, but when used correctly, they can significantly improve safety.

The development of a safety culture among students is a key element in preventing dangerous situations. This is achieved through integrating safety lessons, conducting role-playing games, and incorporating relevant topics into curricula. Methodological materials help teachers develop the right actions and skills for safe behavior in situations of martial law and emergencies.

The conditions of martial law in the country require additional attention to ensuring physical safety in primary education institutions. Traditional elements of physical safety are supplemented by the need to equip educational institutions with shelters, air alarm systems, and other protective measures. This requires school leaders to adapt existing safety plans and develop new measures aimed at protecting students and staff in emergencies. According to UNICEF, despite 97% of children aged 10-17 considering themselves informed about mine safety rules, 135 cases of mine-explosive injuries in children were recorded in the last two years, highlighting the need for ongoing efforts in this area.

Cooperation between schools, parents, and public organizations is an integral part of creating a safe environment. This interaction ensures a comprehensive approach to solving safety issues, bringing together various resources and expert knowledge. The «Safety Educator» [9] project is an example of such cooperation, where communities can join the initiative and make educational institutions safer by involving specialists in controlling and implementing safety measures. Additionally, the introduction of security officer positions in schools enhances safety measures, including controlling access and ensuring traffic safety around educational institutions.

Thus, improving safety in primary education institutions is possible through a comprehensive approach that includes organizational and methodological measures, the implementation of modern technologies, the development of a safety culture among students, and close cooperation between schools, parents, and public organizations. This approach ensures the creation of a safe and conducive learning environment, which is a guarantee of the health and well-being of all participants in the educational process.

CONCLUSIONS

The results of the research indicate that life safety and occupational health in primary education institutions is a multifaceted issue that requires a comprehensive approach. The main risks of physical, psychological, and informational nature affecting both students and teachers have been identified. In particular, non-compliance with sanitary and hygienic standards, inadequate material and technical base, improper organization of evacuation measures, as well as the high professional workload of teachers and insufficient preparation of students for actions in emergencies, are key issues that need to be addressed. Psychological threats, including bullying, cyber threats, and emotional burnout of teachers, significantly affect the quality of the educational process. An analysis of international experience shows that integrating practices aimed at improving safety in schools can contribute to better conditions in educational institutions.

To ensure effective life safety and occupational health in primary schools, it is recommended to implement comprehensive measures. First, it is necessary to improve the legal framework for safety in educational institutions and ensure its updating in line with current challenges. Second, the modernization of the material and technical base of schools should be carried out, including improving the condition of buildings, updating educational equipment, and providing necessary personal protective equipment. It is important to conduct regular monitoring of the working conditions of teachers and the psychological comfort of students, as well as to introduce programs for the prevention of emotional burnout among teachers.

Special attention should be given to improving the system for preparing participants in the educational process for actions in emergencies. It is recommended to conduct regular evacuation drills, first aid training, and integrate safety topics into educational programs. Particularly relevant is the introduction of digital literacy programs, which will contribute to improving the level of information security for students. Preventing bullying and creating a safe psychological environment requires the implementation of anti-bullying programs, active collaboration with parents, and the involvement of psychologists in the educational process.

An effective approach to improving safety is the use of modern technologies, such as video surveillance systems, electronic access control, and mobile applications for emergency notifications. It is recommended to expand cooperation between educational institutions, local authorities, and public organizations, which will allow more effective implementation of safety measures and threat prevention. In the long term, it is advisable to adapt international experience in ensuring safety

in schools, including methods for early threat detection and a continuous safety education program for teachers.

Thus, ensuring life safety and occupational health in primary educational institutions requires a comprehensive and systematic approach. The implementation of the proposed measures will contribute to creating a comfortable and safe educational environment, positively affecting the quality of education and the overall well-being of all participants in the educational process.

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