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https://orcid.org/0009-0009-1348-2030

https://doi.org/10.34739/dsd.2024.02.06



PERSPECTIVES OF EDUCATION IN THE FIELD OF HEALTH SECURITY - REFLECTIONS IN THE LIGHT OF THE RESULTS OF OWN RESEARCH

ABSTRACT: A school that responds to the challenges of the future, cares for the safety of students, and ensures psychosocial well-being are the requirements for modern education. The Ministry of National Education assumes that the main area of educational policy in 2025 will be activities in the field of health education of students, and in particular care for their physical and mental health. The aim of the article is to draw attention to the challenges for education in the field of health safety, and especially health education. The authors assumed that health education is an important element in the process of ensuring the desired level of health safety. Health safety includes both the prevention of health threats, as well as their control and ensuring lasting health support for society. Assuming that the key goal of these activities is to protect people's health and life, the process of shaping health safety cannot be devoid of educational activities. The publication presents selected results of research conducted among students of purposefully selected fields of study. The study used the diagnostic survey method, and the aim of the research was to identify students' opinions on various aspects of safety, with particular emphasis on health security. The study was conducted in the context of a health crisis (COVID-19 pandemic), which further highlighted the essence of the issues addressed. The results showed that students are aware of the changes and consequences brought about by the global health crisis. At the same time, students' interest in introducing a subject in the field of health security to the study program should be described as only moderate, even though they appreciate the essence of this area of education and connect it with the concept of sustainable development.

KEYWORDS: student opinions, health education, health safety culture, health crisis

PERSPEKTYWY KSZTAŁCENIA Z ZAKRESU BEZPIECZENSTWA ZDROWOTNEGO – REFLEKSJE W ŚWIETLE WYNIKÓW BADAŃ WŁASNYCH

ABSTRAKT: Szkoła odpowiadająca na wyzwania przyszłości, troszcząca się o bezpieczeństwo uczniów, zapewniająca dobrostan psychospołeczny to wymagania dla współczesnej edukacji. Ministerstwo Edukacji Narodowej zakłada, że głównym obszarem polityki oświatowej w 2025 roku będą działania w zakresie edukacji zdrowotnej uczniów, a w szczególności dbałość o ich zdrowie fizyczne i psychiczne. Celem artykułu jest zwrócenie uwagi na wyzwania dla kształcenia z zakresu bezpieczeństwa zdrowotnego, a szczególnie edukacji zdrowotnej. Autorki założyły, że edukacja zdrowotna stanowi istotny element w procesie zapewniania pożądanego poziomu bezpieczeństwa zdrowotnego. Bezpieczeństwo zdrowotne obejmuje zarówno zapobieganie zagrożeniom zdrowotnym, jak i ich kontrolę oraz zapewnienie trwałego wsparcia zdrowotnego dla społeczeństwa. Przyjmując, że kluczowym celem tych działań jest ochrona zdrowia i życia ludzi, proces kształtowania bezpieczeństwa zdrowotnego nie może być pozbawiony działań edukacyjnych. W publikacji



zaprezentowano wybrane wyniki badań realizowanych wśród studentów celowo dobranych kierunków studiów. W badaniu wykorzystano metodę sondażu diagnostycznego, a celem badań było rozpoznanie opinii studentów na temat różnych aspektów bezpieczeństwa, ze szczególnym uwzględnieniem bezpieczeństwa zdrowotnego. Badanie przeprowadzono w warunkach kryzysu zdrowotnego (pandemia COVID-19), co dodatkowo uwypukliło istotę podjętej problematyki. Wyniki pokazały, że studenci są świadomi zmian oraz konsekwencji, jakie przyniósł globalny kryzys zdrowotny. Jednocześnie zainteresowanie studentów wprowadzeniem do programu studiów przedmiotu z zakresu bezpieczeństwa zdrowotnego należy określić jako zaledwie umiarkowane, mimo że doceniają oni istotę tego obszaru kształcenia i łączą go z koncepcją zrównoważonego rozwoju.

SŁOWA KLUCZOWE: opinie studentów, edukacja zdrowotna, kultura bezpieczeństwa zdrowotnego, kryzys zdrowotny

INTRODUCTION

The problems faced by countries and societies during the COVID-19 pandemic, as well as the organizations and institutions operating within them, force the need for new ways of thinking about health and security¹. Both health and security should be understood as a need and a value at the same time. Together with issues of education, these areas seem to be crucial in terms of opportunities for the survival and development of individuals, social groups, and nations. On 31/10/2024, a draft regulation of the Minister of Education was submitted for public and inter-ministerial consultations, which would amend the regulation on framework educational plans for public schools. According to it, from the 2025/2026 school year, a new subject called Health Education will be introduced into schools. According to the draft, the subject will be implemented in:

1. grades IV-VIII of elementary schools at a rate of 1 hour per week, with the subject to be implemented in grade VIII no longer than until the end of January of a given school year (not for the entire school year), due to the eighth-grade exam conducted in May in grade VIII of elementary school;
2. general high school (excluding general high school for adults), technical high school and industry lower secondary school in the amount of 2 hours in grades I-III, while the subject will be able to be implemented in grades I and II or in grades II and III or in grades I and III.

On the information website of the Ministry of Education², one can read that the subject of health education will be able to be taught by teachers of biology, physical education, upbringing for family life, psychologists, and by teachers who have completed studies or post-graduate studies in the field of health education and have pedagogical preparation, however, relevant regulations in this regard will be proposed in the near future in a planned amendment to the Regulation of the Minister of Education and Science of September 14, 2023, on detailed qualifications required of teachers³.

¹ M. Cieślarczyk, *Znaczenie kultury bezpieczeństwa w procesach logistycznych na przykładzie pandemii Covid-19 i innych elementów kaskadowej sytuacji kryzysowej*, Warszawa 2022, s. 236.

² <https://www.gov.pl/web/zdrowie/edukacja-zdrowotna> (18.11.2024).

³ Ibidem.

Health education in European Union (EU) countries is diverse, as each member state has autonomy in shaping its education system. Nevertheless, there are common goals and initiatives at the EU level that support health education. In most EU countries, health education is integrated into school curricula⁴. It can be implemented as a stand-alone subject or as part of subjects such as biology, physical education or civic education. Programs cover topics such as healthy eating, physical activity, hygiene, disease prevention (e.g. HIV/AIDS), mental health, sex education, and addiction prevention (tobacco, alcohol, drugs)⁵. Thus, for example, in Scandinavian countries there is a strong emphasis on mental health and sex education; in Southern European countries - on a healthy diet (e.g., Mediterranean) and physical activity. In Central and Eastern Europe, health education is developing more slowly in some countries in the region, but awareness of the importance of public health is growing rapidly⁶.

It is worth recalling that the first European Conference of Health Promoting Schools under the theme “Health Promoting School - an investment for education, health and democracy” was held in 1997 in Thessaloniki-Halkidiki, Greece. The resolution of that conference stated, among other things, that “every child and young person in Europe has the right and should have the opportunity to learn in a health-promoting school”⁷. Therefore, it may come as a surprise that there are heated polemics and voices contesting the legitimacy of introducing the subject of Health Education into Polish schools. The authors of the present study, long before the bill for a new subject called Health Education, decided to check the attitude of young people to the possibility of acquiring knowledge in the area of health security. The research group consisted of students of courses related to security in the broadest sense.

HEALTH EDUCATION AS A PART OF HEALTH SECURITY FORMATION

Security as a psychosocial and organizational (praxeological) phenomenon, can be both subjective and objective in nature⁸. Treated as one of the basic needs and values of an entity, security becomes one of its main goals. Needs, values, and goals are realized and achieved due to the proper relations between the entity and its environment (environment), as well as due to the appropriate security systems. As Cieślarczyk aptly and accurately notes, the aforementioned relations are dynamic - they change with the passage of time and the change of the subject's location. An important role is then played by the subject's value system and the norms (rules) he observes, but also by the wise activity (or lack thereof) manifested in various spheres of human life and activity, as well as in various areas of his security⁹. It is not insignificant to be

⁴ E. Toçi, G. Burazeri, K. Sørensen, H. Kamberi, H. Brand, *Concurrent validation of two key health literacy instruments in a South Eastern European Population*, “European Journal of Public Health” 2014.

⁵ <https://www.consilium.europa.eu/pl/policies/eu-health-policy> (10.12.2024).

⁶ K. Sørensen, H. Brand, *Developments and perspectives of health literacy in Europe*, 2017, s. 10-12.

⁷ M. Woynarowska-Sołdan, *Szkoła promująca zdrowie w Europie w świetle dokumentów czterech europejskich konferencji*, „Kwartalnik Pedagogiczny” 2015, s. 97-112.

⁸ D. Frei, *Sicherheit, Grundfragen der Welt*, Stuttgart 1977.

⁹ M. Cieślarczyk, *Współczesne rozumienie bezpieczeństwa*, Szczytno 2011, s. 17.

skillfully predictive of events, and thus to realize that shaping security (to paraphrase Cieślarczyk's thinking) requires thinking not only about what is 'here and now', but also about what is "somewhere and someday".

Global public health security is defined as the proactive and reactive actions required to minimize the danger and consequences of acute public health events that threaten the health of people across geographic regions and international borders¹⁰. Population growth, rapid urbanization, environmental degradation, and inappropriate use of antimicrobials disrupt the balance of the microbial world. New diseases, such as COVID-19, are emerging at an unprecedented rate, disrupting human health and causing social and economic impacts. Billions of passengers travel by airplane each year, increasing the potential for the rapid international spread of infectious agents. The dependency on chemicals has increased, as has awareness of potential health and environmental risks, such as climate change and air pollution. As food production becomes more globalized, so does the risk of contaminated ingredients and the risk of foodborne illness. As the world's population becomes more mobile and economically interdependent, global health risks are increasing, and traditional defensive measures at national borders cannot protect against disease invasion. Pandemics, health threats, and inefficiencies in health systems not only cost human lives, but also pose some of the greatest threats to the global economy and security we face today¹¹.

In the Polish literature, the issue of health security is analyzed by many researchers from different perspectives. Authors who address this topic include: Daria Krzewniak and Joanna Ważniewska¹², Magdalena Bsoul-Kopowska¹³, Mateusz Kuczabski¹⁴, Benedykt Bober¹⁵, Agnieszka Filipek¹⁶, or the aforementioned Marian Cieślarczyk¹⁷ and Jerzy Konieczny¹⁸. Multiple definitions and approaches lead to several conclusions, including the most important one – health security has a direct impact on other types of security and is one of the key spheres of life for both individuals and communities. As some researchers¹⁹ have shown, international

¹⁰ P.J. Schulz, U. Hartung, *The future of health literacy*, https://www.researchgate.net/publication/368782998_Measuring_health_literacy_in_Europe_Introducing_the_European_Health_Literacy_Survey_Questionnaire_HLS-EU-Q (11.12.2024).

¹¹ https://www.who.int/health-topics/health-security#tab=tab_1 (09.12.2024).

¹² D. Krzewniak, J. Ważniewska, *Kultura Bezpieczeństwa zdrowotnego a zrównoważony rozwój*, 2016, s. 53-73.

¹³ M. Bsoul-Kopowska, *Analiza porównawcza zarządzania bezpieczeństwem zdrowotnym państwa a jego rozwój gospodarczy*, „De Securitate et Defensione. O Bezpieczeństwie i Obronności” 2021, t. 7, nr 2 s. 55-72, <https://doi.org/10.34739/dsd.2021.02.04>.

¹⁴ M. Kuczabski, *Kategoria bezpieczeństwa zdrowotnego w naukach o bezpieczeństwie*, „Studia Bezpieczeństwa Narodowego” 2021.

¹⁵ B. Bober, *Bezpieczeństwo zdrowotne jako istotny komponent bezpieczeństwa Państwa*, „Studia nad Bezpieczeństwem” 2016, s. 33-64.

¹⁶ A. Filipek, M. Faldowska, D. Krzewniak, J. Ważniewska, *Wybrane elementy kultury bezpieczeństwa studentów w czasie pandemii COVID-19*, Siedlce 2021.

¹⁷ M. Cieślarczyk, 2022, op.cit.

¹⁸ J. Konieczny, *Bezpieczeństwo zdrowotne w zdarzeniach masowych. Rekomendacje organizacyjne*, Poznań 2022.

¹⁹ J. Konieczny, L. Dajerling, *Bezpieczeństwo zdrowotne. Postępy monitorowania, obrazowania stanu zdrowia i środowiska*, Poznań 2019; D. Dymek, J. Sadłowska-Wrzesińska, *Common situational awareness in the process*

security leaders increasingly appreciate the importance of investing in health security. Health system efficiency, with an emphasis on information systems and effective response strategies, can provide effective protection against infections that cause epidemics. These words, used in pre-pandemic publications, today seem like a prophetic message aimed at the young. For it is to them that the future belongs, but it is also up to them to shape it – today's 'youngsters' will be dealing in the future with the next emergencies, the next social problems the world will pose to them. As experts, security and/or medical professionals, political decision-makers or social activists – they will be confronted with the need to respond and make decisions in the area of public health. Young people should definitely participate in debates about the shape of education, including health education²⁰.

BACKGROUND AND DESCRIPTION OF THE CONDUCTED RESEARCH

The study, conducted in May-June 2021 in three Poznań universities, used the method of diagnostic survey, a survey was chosen as the technique, the tool was a survey questionnaire, containing sociodemographic questions and statements on opinions on various aspects of health security in a pandemic state. Participation in the study was voluntary and anonymous. Initially, the survey process was prepared in PAPI systematics, but the epidemiological situation forced the research team to design an online tool. Purposive selection was used in the study - final year undergraduate students of three universities were invited to participate in the survey: Poznan University of Technology, A. Mickiewicz University in Poznan and Poznan Medical University. The fields of study were also purposely selected to allow for later comparative analysis, and thus were those related to security in the broadest sense: Security Engineering (PP), National Security (UAM), and Emergency Medical Services (UMP). The designed research tool was validated over the course of several research trials. The control group was Security Engineering students; the pilot study conducted among them made it possible to refine the research tool in terms of comprehensibility of the research questions. In addition, the Delphi method was used in the course of the pilot study, which the selection of questions was verified.

The questionnaire presented in this study is based on the content side of the students' views toward the COVID-19 pandemic. The new, unfamiliar virus has become a major topic of discussion (but also dispute), and has not escaped the controversy over the perception of the threat among young people as well. Thus, one can conclude that the research process began much earlier than the creation of the questionnaire – with casual conversations with students during online classes, in social situations of a non-professional nature, in public spaces. Not

of building social resilience to a health crisis – the example of the COVID-19 pandemic, „Zeszyty Naukowe SGSP” 2024, nr 89, s. 157-176.

²⁰ B.B. Jensen, V. Simovska, N. Larsen, L.G. Holm, *Young people want to be a part of the answer: Young Minds as an educational approach to involve schools and students in national environment and health action plans*, 2005, <https://iris.who.int/handle/10665/107635> (10.12.2024).

insignificant was the flood of views and opinions in social media, as well as the information chaos in public media. This was a situation conducive to the birth of so-called conspiracy theories. It is not without reason that the February 2020 coronavirus pandemic was called an 'infodemic' by the World Health Organization, which, in a nutshell, can be interpreted as the dissemination of distorted information²¹. Using a certain mental shortcut, it becomes legitimate to say that access to false information is a threat to health. The expansion of knowledge with erroneous information leads to the formation of a distorted worldview, based on permanent distrust, aversion to medicine, science, and other achievements of mankind. To meet the needs of verifying unverified information and debunking 'myths' in the field of health security, work began on the construction of a survey questionnaire²². Government reports, statistics, expert opinions, and WHO guidelines were used as theoretical background. Among the inspiring publications, the studies are worth mentioning: Gonzales and Griffin (2020)²³, Paltiel et al. (2020)²⁴, Blake et al. (2021)²⁵.

The survey consists of three main modules: the introduction includes questions on general beliefs about the COVID-19 pandemic. The main part includes questions related to the pandemic, but in such a way as to highlight three main periods: pre-pandemic, during the pandemic, post-pandemic. The third part, on the other hand, contains questions already directly related to health security issues. The whole was topped with the so-called 'metric' part, i.e. a request for sociodemographic data of the surveyed structure. The final version of the questionnaire has 55 questions (without sociodemographic questions)²⁶. More than 160 people took part in the survey, but 138 students (n=138) returned the questionnaires correctly filled out.

DISCUSSION OF RESEARCH RESULTS – SELECTED ASPECTS

The results of the research conducted are systematically published in domestic and foreign periodicals. For the purpose of this study, the authors focused on selected issues, which can be presented using the following research questions:

1. Are students aware of the changes that have been induced by the global health crisis?

²¹ World Health Organisation, *Novel Coronavirus, Situation Report*, Geneva 2020.

²² The diagnostic survey conducted is part of a larger project in the COVID-19 research area: „Mobilne punkty pomocy medycznej, modułowe szpitale polowe. Doświadczenia organizacyjne i logistyczne COVID-19. Projekt rozwiązań systemowych w Wielkopolsce”. Project leadership: prof. Jerzy Konieczny.

²³ L. Gonzales, K. Griffin, *Supporting faculty during & after COVID-19: Don't let go of equity*, Washington 2020.

²⁴ A.D. Palitel, A. Zheng, R.P. Walensky, *Assessment of SARS-COV-2 Screening Strategies to Permit the Safe Reopening of Collage Campuses in the United States*, JAMA network open, <https://doi.org/10.1001/jamenetworkopen.03.07.2020>.

²⁵ H. Blake, H. Knight, Jia R., J. Corner, J.R. Morling, C. Denning, J.K. Ball, K. Bolton, G. Figueredo, D.E. Morris, P. Tighe, A.M. Villalon, K. Ayling, K. Vedhara, „*Students' Views towards Sars-Cov-2 Mass Asymptomatic Testing, Social Distancing and Self-Isolation an a University Setting during the COVID-19 Pandemic: A Qualitutive Study*, “*Int. J. Environ. Res. Public Health*” 2021, <https://doi.org/10.3390/ijerph18084182> (17.12.2024).

²⁶ The construction and application principles of the survey are presented in: J.Sadłowska-Wrzesińska, M.Serwin, A.Waśkowska, *Badanie opinii studentów na temat bezpieczeństwa zdrowotnego w stanie pandemii. Budowa i zasady stosowania autorskiego kwestionariusza ankiety*, In: *Środowisko bezpieczeństwa w zagrożeniach epidemiologicznych. Doświadczenia Covid-19 w Wielkopolsce*, M.Tomaszyk, D.Dymek (eds.) Poznań, 2022, s. 95-114.

2. Are students able to connect health security issues with the idea of sustainable development?
3. Do students think it is reasonable to introduce a health security subject into the study program?

Table 1. Attitudes toward the statement pandemic COVID-19 will change the way people work and interact by university

The COVID-19 pandemic will change the way people will work and interact	University						Total	
	UAM (1)		PP (2)		UMP (3)			
	N	%	N	%	N	%	N	%
definitely yes	25	39,7%	26	42,6%	2	14,3%	53	38,4%
rather yes	21	33,3%	29	47,5%	5	35,7%	55	39,9%
don't know	10	15,9%	3	4,9%	6	42,9%	19	13,8%
rather not	4	6,3%	3	4,9%	1	7,1%	8	5,8%
definitely not	3	4,8%	0	0,0%	0	0,0%	3	2,2%
Total	63	100,0%	61	100,0%	14	100,0%	138	100,0%
Kruskal-Wallis test: $H=7,808$, $p=0,020^*$, R.I: 2/3								

Source: own work

The Kruskal-Wallis test showed that UMP students are statistically significantly different from PP students in terms of their opinions on whether the COVID-19 pandemic will change the way people work and interact. The analysis of percentages shows that PP students are significantly more likely to agree (as many as 42.6% think definitely yes and 47.5% think rather yes) than UMP students (as many as 42.9% have no opinion and 35.7% think rather yes).

Table 2. Attitude to the statement Pandemic COVID-19 will change the way people work and interact by gender

The COVID-19 pandemic will change the way people will work and interact	Gender				Total	
	Female		Male			
	N	%	N	%	N	%
definitely yes	37	45,1%	16	28,6%	53	38,4%
rather yes	31	37,8%	24	42,9%	55	39,9%
don't know	8	9,8%	11	19,6%	19	13,8%
rather not	4	4,9%	4	7,1%	8	5,8%
definitely not	2	2,4%	1	1,8%	3	2,2%
Total	82	100,0%	56	100,0%	138	100,0%
Mann-Whitney U test: $Z=-2,060$, $p=0,039^*$						

Source: own work

The Mann-Whitney U test showed that women and men differ significantly in their opinions about whether the COVID-19 pandemic will change the way people work and interact. An analysis of percentages shows that significantly more women agree than men. Clearly, more women (45.1%) than men (28.6%) strongly agree.

As a next step, the researchers decided to ask about sustainability issues - in the context of health security.

Table 3. Attitudes toward the statement: *For the country to be economically competitive and grow in accordance with the principles of sustainable development, the health security of citizens must be a key issue* - among respondents overall and by university

For the country to be economically competitive and grow in accordance with the principles of sustainable development, the health security of citizens must be a key issue	University						Total	
	UAM		PP		UMP			
	N	%	N	%	N	%	N	%
definitely yes	18	28,6%	15	24,6%	5	35,7%	38	27,5%
rather yes	28	44,4%	32	52,5%	5	35,7%	65	47,1%
don't know	13	20,6%	14	23,0%	4	28,6%	31	22,5%
rather not	2	3,2%	0	0,0%	0	0,0%	2	1,4%
definitely not	2	3,2%	0	0,0%	0	0,0%	2	1,4%
Total	63	100,0%	61	100,0%	14	100,0%	138	100,0%
Kruskal-Wallis test: $H=0,136$, $p=0,934$								

Source: own work

Significantly more respondents strongly or rather agree (74.6%) than strongly or rather disagree (2.8%) that in order for the country to be economically competitive and grow sustainably, the health security of citizens must be a key issue. The remaining 22.5% of the respondents have no opinion on this issue. The Kruskal-Wallis test showed no statistically significant difference between students at different universities in terms of attitudes toward this statement.

Knowing the students' opinions on the inevitable changes in functioning brought about by the health crisis, and given the relatively high level of awareness of the concept of sustainability, the researchers decided to ask directly for their opinion on the introduction of the subject 'Health Security' into the study program.

Table 4. Attitude toward the statement: *I think it is reasonable to introduce a subject called 'Health Security' into the study program* – among respondents overall and by university

I think it is reasonable to introduce a subject called "Health Security" into the study program	University						Total	
	UAM		PP		UMP			
	N	%	N	%	N	%	N	%
definitely yes	13	20,6%	9	14,8%	1	7,1%	23	16,7%
rather yes	20	31,7%	13	21,3%	5	35,7%	38	27,5%

don't know	15	23,8%	21	34,4%	2	14,3%	38	27,5%
rather not	10	15,9%	11	18,0%	6	42,9%	27	19,6%
definitely not	5	7,9%	7	11,5%	0	0,0%	12	8,7%
Total	63	100,0%	61	100,0%	14	100,0%	138	100,0%
Kruskal-Wallis test: H=2,707, p=0,258								

Source: own work

Significantly more respondents strongly or rather agree (44.2%) than strongly or rather disagree (28.3%) that it is reasonable to introduce a subject called 'Health Security' into the study program. The remaining 27.5% of the respondents do not have an opinion on this issue. The Kruskal-Wallis test showed no statistically significant difference between students at different universities in terms of attitudes toward this statement.

In the next step, the authors of the study decided to see if the fact of having been ill with COVID-19 could influence the answers given – in such a way as to contribute to a greater awareness and need for knowledge in the field of health security.

Table 5. Attitude toward the statement: *I think it is reasonable to introduce a subject called 'Health Security' into the study program* – with a breakdown of those who have been ill, have not been ill or do not know if they have been ill on COVID-19

I think it is reasonable to introduce a subject called "Health Security" into the study program	Have you been ill with COVID-19?						Total	
	yes		not		don't know			
	N	%	N	%	N	%	N	%
definitely yes	6	15,8%	10	17,2%	7	16,7%	23	16,7%
rather yes	9	23,7%	17	29,3%	12	28,6%	38	27,5%
don't know	12	31,6%	14	24,1%	12	28,6%	38	27,5%
rather not	8	21,1%	12	20,7%	7	16,7%	27	19,6%
definitely not	3	7,9%	5	8,6%	4	9,5%	12	8,7%
Total	38	100,0%	58	100,0%	42	100,0%	138	100,0%
Kruskal-Wallis test: H=0,158, p=0,924								

Source: own work

The Kruskal-Wallis test showed no statistically significant difference between those who have been ill, have not been ill, or do not know whether they have been ill with COVID-19 in terms of attitude toward the statement: *I think it is reasonable to introduce a subject called 'Health Security' into the study program*. Among those who have been ill with COVID-19, the largest number (31.6%) have no opinion on the subject. Among those who have not contracted COVID-19, most (29.3%) think it is rather justified, and among those who do not know whether they have contracted COVID-19, most think it is rather necessary (28.6%) or do not have an opinion on the subject (28.6%).

In light of the research results presented, the answers to the research questions posed are as follows:

1. In general, students are aware of the changes that have been induced by the global health crisis, but the level of this awareness varies depending on the university represented. The greatest awareness in this regard is shown by students of the Poznan University of Technology, which can be explained by the convergence of the issue raised with the field of education (management, logistics, safety at work). The greatest skepticism about the issues raised is represented by students of the Medical University. Regarding gender differences, the survey found that women were far more likely to agree with the statement that the pandemic will change the way people work and interact.
2. Students are able to link health security issues with the idea of sustainability, as evidenced by nearly 75% agreement with the thesis. The test showed no statistically significant differences – neither within gender nor by university.
3. Interest in the introduction of a subject called ‘Health safety’ into the college study program can be described as moderate - less than 45% of respondents expressed themselves positively towards such a proposal. The authors of the study decided to test whether the fact of being ill with Covid-19 could influence the answers given – in such a way that it would contribute to a greater awareness and need for knowledge in the field of health security. The tests conducted did not confirm this hypothesis.

SUMMARY AND CONCLUSIONS

The pandemic has proven that cooperation among EU countries is of paramount importance to protect human health, both during a pandemic and during periods when we are not dealing with emergencies and can address basic health care issues, invest in robust care systems and train health professionals. The European Health Union aims to raise the EU-wide level of protection, prevention, preparedness, and response to human health threats²⁷.

The surveys conducted, although carried out during the difficult period of the pandemic and with limited public exposure, showed that analyzing the opinions of a selected group of the public is possible and worth pursuing. It can contribute to reducing risks, mainly by shaping and/or modeling attitudes, raising awareness, and correcting established views. In practice, the usefulness of survey research is still contested (treating it as unreliable, extremely subjective), although this approach is not sufficiently justified - current trends in the field of the issue under discussion clearly show that one of the most effective ways of determining the possibility of improving the quality of life is opinion research in a selected group of respondents – their preferences, goals, motives and sources of involvement, but also fears, concerns, expressions of dissatisfaction or knowledge deficits. Therefore, it is worth conducting surveys, but remembering that they should be systematic and enable analysis and monitoring of the effectiveness of

²⁷ European Health Union. *Protecting our health together*, https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/promoting-our-european-way-life/european-health-union_pl (05.12.2024).

the introduced solutions. In this regard, it is difficult to overestimate the role of education, but also of scientific research using appropriate methods.

The aim of this study was to highlight the challenges for health security education, especially the subject called Health Education. The students participating in the study are highly aware of the changes that the global health crisis has brought, they are able to connect the issue of the importance of health security with the concept of sustainable development, but at the same time they do not show a high interest in expanding their knowledge in this area. This represents a certain dissonance. Perhaps this is indicative of a passive attitude, from which the conviction of an external causal force (the state, the system) that exclusively shapes health security emerges. This issue requires further in-depth research.

Ensuring health security is a multifaceted task that requires the involvement of various entities at the international, national, local and individual levels. The main responsibilities lie with the State and the government, international health organizations and local governments. The role of the private sector cannot be overestimated either – private health facilities, pharmaceutical companies and medical insurers are obliged to comply with standards and ethics in order to support health security. However, we must not forget that each person is responsible for taking care of their health, following medical recommendations, personal hygiene, and using available health programs. Social organizations can support educational activities and support people in difficult health situations, while scientific and research institutions, conducting research on new treatment methods, medical technologies, and epidemiology, play a key role in the progress of medicine. All of the above-mentioned entities and their tasks require cooperation and coordination, because public health is a common good that requires the involvement of the entire community. In this context, health education can contribute to both increasing the level of medical prevention and increasing awareness of the health of Polish women and men. Health education is not only a process of teaching or acquiring knowledge, but also taking positive actions for one's health, as well as making choices that are conducive to health. Introducing health education to schools will help young people discover their choices for good health and life.

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