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The development of health security during the coronavirus pandemic

Abstract

This paper shows the importance of broadly defined health security, illness prevention, and health education, in all possible stages of human life. The paper contains a description of the basic threats to human health security emanating from the coronavirus pandemic. In addition, the author deals extensively with the preventive qualities of educational activities in the development of a sense of human health security. The main idea of the paper demonstrates that health security during the coronavirus pandemic, together with a sense of calm and stagnation, have a fundamental impact on human well-being. All this is combined with the adoption of the appropriate attitudes, while at the same time determining the focus of the concentration of human activity, and therefore of human education, in the times of threats to health.

Key words: threats, health security, coronavirus pandemic, sense of security

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Introduction

The issue of “human security”¹, which is increasingly present in cyberspace, is the subject of most discussions on modernity and changes in various areas of our lives. Concerns about uncertainty, but also about the numerous threats in this domain, are resulting in a rising number of cases of addiction, and growing incidences of aggression, violence, and brutality among people. The reasons for the deterioration of the human condition, and the desire to shut oneself only in the world of one’s nearest and dearest, or of one’s own self, are becoming increasingly apparent. Such attitudes make it difficult to cooperate with one another, and to take co-responsibility for the fate of oneself and others².

The set of threats identified as being related to survival is extremely extensive, and, more importantly, diverse. Several basic groups can be distinguished within it. The first involves raw materials, food, and drinking water, both in terms of their availability and in terms of competition, or even war, for their possession. In addition, there are threats associated with the destruction of the environment, and the effects of global warming in its broadest sense. Another group is associated with the broadly understood labour market, various manifestations of unemployment, the impermanence of employment, the disappearance of certain occupations, the changing nature of work, and threats to the health of societies.

Health is a fundamental value, and the right to it is included in a fundamental inventory of rights, the respect for which, to the extent that health security³ is guaranteed, should be supported by an effective State policy. The definition by the World Health Organisation (WHO) has incorporated the concept of health into a holistic hypothesis assuming that the whole is more than the sum of its parts. The essence of holism is precisely this “more than...”, which must be added in order for specific parts to form a whole. These are relationships, connections, links, and dependencies which, from the mutation of possible relations, create

1 For further details, see M. Czuryk, K. Drabik, A. Pieczywok, *Bezpieczeństwo człowieka w procesie zmian społecznych, kulturowych i edukacyjnych*, Olsztyn 2018; J. Gierszewski, A. Pieczywok, *Społeczny wymiar bezpieczeństwa człowieka*, Warszawa 2018; J. Gierszewski, A. Pieczywok, J. Piwowarski, *Wyzwania i zagrożenia w obszarze bezpieczeństwa kulturowego*, Toruń 2020; A. Pieczywok, *Działania społeczne w sferze bezpieczeństwa społecznego*, Lublin 2018.

2 A. Pieczywok, *The use of selected social concepts and educational programmes in counter-acting cyberspace threats*, „Cybersecurity and Law” 2019, nr 2, s. 62.

3 J. Ruszkowski, *Zwiększenie bezpieczeństwa zdrowotnego*, Warszawa 2010, s. 6.

“something more” for the part or the whole. These appropriate relationships between the part and the whole are referred to as synergy (cooperation).

The concept of health security is very broad – it includes important factors influencing the health of people. Their cooperation is a determinant in the process of achieving health effects on a social scale. It corresponds to the subjective feeling of threat faced by patients and their families in the event of illness⁴, and is closely linked to issues of accessibility to the extent that it meets health needs. Institutions and regulations can be precisely named, and the features, objectives, and results of policies which form the health security subsystem can be defined. One of the important tasks of health security is to properly ensure health protection for a society capable of effectively creating material and cultural goods. Health is, therefore, significant from an economic point of view, in the context of social and economic development⁵.

Health security involves ensuring the conditions for the maintenance of health security for both citizens in general and for individuals, and the provision of public health services by institutions. It includes maintaining favourable health trends in society, preventing and reducing diseases, combating epidemics and pandemics, and maintaining and creating the appropriate medical infrastructure related to patients’ access to health services and the health system.

Recently, the attention of most people has been focused on the threats posed by the coronavirus. The epidemic which broke out at by the end of 2019 in the Chinese city of Wuhan proved to be a greater threat than initially thought. Today, it is already officially considered a pandemic by the World Health Organisation (WHO). The coronavirus not only directly affects the well-being and health of millions of people around the world, but also the global economy, education, freedom of movement, and day-to-day behaviour.

The coronavirus pandemic has been a great shock to the European and global economies. It is also a serious threat to the residents of Poland in many aspects of our lives, including health. The Member States of the European Union have already introduced, or are introducing, measures to support budget liquidity and policy actions, in order to increase the capacity of national health systems, and provide assistance to the citizens and sectors particularly impacted by the pandemic.

4 Ibidem, s. 33.

5 A. Pieczywok, *Działania...*, s. 266.

The predominant problem for patients remains access to healthcare services provided as part of healthcare management as modified due to the state of the pandemic. Attention should also be drawn to the numerous problems being faced, or likely to be faced, by particular groups of citizens, especially the elderly, patients with disabilities and their carers, oncological patients, and those living in social welfare homes. As well as the threats directly affecting human health, this situation also has an impact on people's personalities and social relations, influencing the functioning of various social groups, countries and institutions, especially economic and social entities.

In addition, the healthcare systems of many countries, including Poland, have to cope not only with the growing number of COVID-19 patients, but also the shortage of healthcare staff, problems with the supply of medicines and personal protective equipment for medical staff, and, finally, the suspension of entire hospital wards from functioning.

The aim of this paper is to draw attention to the development of human health security in these times of the coronavirus pandemic.

The threats to human health security caused by the coronavirus pandemic

The threats to human health security caused by the coronavirus pandemic can relate to the social, emotional, health, economic, and educational spheres of both individuals and society⁶.

The view that one of the most significant threats to human social health is an inappropriate lifestyle, and not, as is repeatedly stated, institutional healthcare activities, is becoming increasingly widespread. In most cases, one's lifestyle is determined by such parameters and behaviour as diet, stimulants, personal hygiene, physical activity (including sports), stress, the natural environment, and preventive care.

Factors other than a healthy lifestyle which determine human health security also include the right to health protection, of which State institutions are the primary guarantors, and access to medical services on equal terms,

6 For further details on health security, see: M. Karpiuk, N. Szczęch, *Bezpieczeństwo narodowe i międzynarodowe*, Olsztyn 2017; M. Karpiuk, J. Kostrubiec, *The Voivodeship Governor's Role in Health Safety*, „*Studia Iuridica Lublinensia*” 2018, nr 2.

while the equal and fair availability of health services present a fundamental challenge for health policy, and thus also for health security.

Elements related to broadly understood knowledge of the organisation of the healthcare system, its accessibility, the concept of being patient-friendly, limiting barriers, the sense of equality of beneficiaries, the unchangeability of the rules, and attention to the quality of services provided, all play a fundamental role in activities related to developing a sense of health security. Undoubtedly, these elements have quite a large impact on the state of the epidemic emergency within society.

The state of epidemic emergency is a concept defined in the Act of 5 December 2008 on preventing and combating human infections and infectious diseases (uniform text, Journal of Laws of 2019, item 1239, as amended). It relates to the legal situation introduced in a given area in relation to the risk of an epidemic in order to take the preventive measures laid down in this Act. If an epidemic threat occurs in the area of more than one voivodeship – as is currently the case – a state of epidemic emergency may be declared (or revoked) by way of a Regulation by the Minister of Health, in consultation with the Minister of the Interior and Administration, at the request of the Chief Sanitary Inspector.

The coronavirus pandemic affects every level of functioning of the State and society, including criminal activities in Poland and worldwide. The risk of the coronavirus epidemic has aroused in Poles the desire for assistance and the need for organisation at the level of the smallest local communities. Phoney fundraising, data fraud, the illegal sale of products to which medicinal properties are attributed, and, finally, the failure to comply with quarantines, and Internet hate speech – the effects of the coronavirus pandemic can already be seen in the changing structure of the crimes committed and, in the future, it will probably also be the cause of changes in the scope of crime. The current situation provides new circumstances for committing crimes on the Internet. One of these is phishing, which involves obtaining access data to online banking services or payment-card data. The perpetrators of this crime most often create and send out emails or text messages allegedly coming from a bank of which we are a client.

Initiatives are being organised on the Internet to help the Polish health service and others in need, including fundraising for providing infectious wards with additional equipment to fight the coronavirus, and for the purchase of materials for and the stitching of protective masks.

The pandemic has also resulted in the growth of the illegal sale of products to which medicinal properties are attributed. Criminals, taking advantage of the social unrest caused by the growing scale of the virus infection, are posting advertisements on the Internet for the sale of toothpastes, dietary supplements, creams, and other products which they promote as coronavirus cures.

Recently, society has been burdened with a great deal of media information, focusing on the growing number of people who have been confirmed as having the coronavirus infection, and on the number of people who have died from it. This information, which has not previously appeared with such a high level, can act as a stressor and increase the risk of a deterioration in mental health – particularly anxiety and mood disorders – or can exacerbate their symptoms.

With the outbreak of the pandemic, the phenomenon of disinformation has also taken on unprecedented proportions. The scale of the problem is significant. Today, two pandemics can be observed: those of the coronavirus and fake news. Both are spreading rapidly, and are extremely dangerous, but it is an infodemic (misinformation during a pandemic) which might turn out to be a contagion which will last longer. More and more people are looking online for explanations of the situation they find themselves in, and, unfortunately, they come across fake news, false conspiracy theories, and rumours. It can be seen that many people find them credible because they fit in with the emotions they feel: fear, uncertainty, a sense of a lack of control, and insecurity. Catalysts for an infodemic are often social media, the development of which has facilitated the rapid transmission of unjustified suspicions and lies. Niche narratives, which not long ago would have been considered fictitious, are now widely available on social media. If randomly passed on without any verification of their truthfulness, they become online information, reach thousands of people, and create growing fear.

However, “health” misinformation, although very harmful and liable to ruin the already very much damaged confidence in the health services, might turn out to be a minor problem compared with the effects which can emerge long after the pandemic is over – the radicalisation of selected groups in society, and arousing aversion to other nations.

Many young people (e.g. school pupils) are not in the habit of checking and verifying information, which is a key skill in the context of combating misinformation. Young people also have difficulty distinguishing between what is opinion and what is fact. The Internet has proven to be a domain which

determines a number of socio-cultural processes, but it also functions as a tool to distribute knowledge, whether true or false.

The threats to human health security caused by the coronavirus pandemic, in many cases, have revealed the worsening performance of those who have had both mild and more serious symptoms of the disease. CT scans showed lung damage in patients discharged from hospital. In some patients, chronic complications in the cardiovascular system occurred. Coronaviruses are mentioned as one of the most common causes of respiratory tract infections. The very high incidence, prevalence, and mortality rates of these diseases make respiratory infections a serious problem worldwide, in both children and adults.

The fear of contact with the virus can become a dread of every person we meet. It is worth noting, however, that in recent years, long before the epidemic, much has already been said about the progressive weakening of the quality of interpersonal relations in the modern world, about the tendency to become increasingly isolated from direct contact with another human being, and to transfer more and more of human life's activities to the Internet. In focusing on work, people have had, and still have, less and less time to care for friendships and acquaintances, and more and more often live as if they were inhabiting small, separate, islands in the sea. This phenomenon is particularly noticeable in urban environments, where it is easy to remain anonymous, and where one can function without even knowing one's neighbours very well.

In many cases, in people who are in isolation, stress develops, and the activation of the sympathetic system and the hypothalamic-pituitary-adrenal axis increases, resulting in an increase in inflammation markers. The body thus adapts to the raised risk of injury in order to increase the likelihood of survival in adverse circumstances. However, long-term inflammation is harmful to health, and can lead to a greater risk of developing medical conditions such as ischaemic heart disease, strokes, cognitive impairment, or depression.

Some people are extra-susceptible to growing anxiety. These are, for example, persons with mental problems, such as delusional disorders, who are constantly afraid, for example, that they are sick with something, but no one has detected it yet. This is a group of people who feel very threatened in such a situation. Individuals who have some kind of defect in the functioning of their personality, in their perception of reality or a predisposition to mental disorders, or who suffer from mental disorders, have less ability to adapt. This situation deepens extreme attitudes. Patients with generalised anxiety, who, even under completely normal circumstances, worry too much, e.g. that they

will fall ill, that there will be a shortage of food in the shops, that they will not manage financially, will worry even more.

It is worth noting that the basic trait which predisposes people to the development of any mental disorder is a reduced ability to adapt, which can be caused, for example, by quarantine, the loss of work, or changes in the material status. This is why many people who are less able to cope with these difficulties show great disinclination to adapt.

In the times of coronavirus threats, we can also observe people with hypochondrial disorders, i.e., fear of illness and death, who feel increased anxiety about their health and life. People with these tendencies function much better when they know there is a doctor nearby, and when they have someone to call if something happens. This gives them a sense of security. But when such people read the news that there is a shortage of personnel and equipment somewhere, their fear is increased. The vision appears that there will be insufficient help when needed, and they start to panic.

It can also be observed that, in connection with the coronavirus epidemic, people are spending more money, above all, on products which they think will help to protect them against the disease (e.g. hygiene products and cleaning materials). The feeling of uncertainty associated with the epidemic also increases savings. The need to work and learn remotely to a greater extent translates into increased expenditure on, e.g., computer equipment.

The occurrence of coronavirus has also caused numerous disruptions at all levels of the education system. This has been felt by learners, teachers, educators, and parents alike. Higher education institutions, just like all schools and kindergartens in Poland, have been closed, and lessons, as well as other meetings in larger groups, have been suspended. There have been suspensions on lectures and lessons, bans on internships and placements, cancelled student exchanges, and frozen Erasmus+ programmes. Universities have switched to the organisation of remote learning (distance learning, e-learning). However, not in all schools has this process been carried out smoothly and at a high organisational level. This situation has rendered many Polish universities, not only in terms of mentality and competence, but also in terms of equipment, unprepared to implement the learning process in this form. Most of them are equipped with e-learning platforms, but there is also a significant sector which does not have them (especially private universities).

The preventive value of actions in the development of a sense of human health security

In order to improve the health of the Polish population during the coronavirus pandemic, there is a need for cooperation between ministries, above political divisions, and a significant increase in expenditure on health and health education is also required. One condition for improving the health of Polish society is cooperation between ministries, including the Ministry of Health, the Ministry of National Defence, and the Ministry of Science. A kind of a national health security strategy should also be developed in Poland.

Citizens' health security should be implemented within the healthcare system. This system should be reviewed in connection with the results predicted and achieved in protecting citizens' health. Maintaining the basic quality, accessibility, scope, and coverage of the services provided should be treated as a priority. For this reason, the main element in solving most or all of the problems related to the functioning of the healthcare system, and ensuring patient safety during the coronavirus pandemic, is to ensure the sufficient financing of the healthcare system. A significant part of the functions of the healthcare system remains, and must remain, the public good, for which the State must be responsible.

Before a vaccine against SARS-CoV-2 is developed, the way to treat the coronavirus is to change behaviour. The greatest importance and impact on health is associated with a healthy lifestyle, i.e. conscious behaviour which promotes the maintenance and protection of health. These include physical activity, rational nutrition, sustaining bodily cleanliness and a clean environment, maintaining safety, coping with stress, undergoing preventive medical examinations, etc. In order to break the chain of transmission, people should reduce their workload and contacts with others, even with their loved ones. They should stop going out, suspend certain activities and behaviour, and change routines. Finally, people should wash their hands more often, avoid touching their faces, keep their distance from others, and disinfect their phones.

Actions aimed at increasing the possibilities of patients' access to health services, abolishing limits in terms of access to services, improving the quality of medical services, the actual valuation of health services, and increasing the limits on admissions to medical studies (doctors, nurses) should be combined with a reorientation of medical care and the recognition of the important role

of health promotion, health education, and the prevention of threats related to the coronavirus pandemic.

As regards the spread of misinformation about the fight against the coronavirus pandemic, one solution might be to teach young users to perceive the media critically, which in the Polish educational discourse has been called media education. Elements of this were introduced into the 2009 core curriculum as part of Polish language or computer science lessons. However, it was partial information, and too fragmented to bring tangible results.

In the case of prevention, the basic tool should be vaccination, which involves immunising the body with an antigen or antigens contained in a vaccine. In this way, specific mechanisms of the immune system are activated. The processes of an immune response to the use of an antigen in a vaccine are the same as those of pathogens, and they trigger both non-specific and specific immunity. However, not all vaccines provide 100% protective efficacy against coronaviruses, and not against all their types. At present, we do not have vaccines which are effective against human coronavirus infections.

The most popular method of creating a proper relationship between individuals and groups to health is health education, which is used both in various types of population campaigns and in habitat-based health promotion programmes. During the coronavirus pandemic, this is taking on an even greater dimension. An important challenge it must meet today is thus to eliminate inequalities in healthiness, including by seeking and implementing more effective ways of influencing people of different levels of education and ages.

It can be stated that the aim of health education is not only to provide information on the value of health but, above all, to make people want to use this information in practice. Therefore, the fundamental aim is to shape attitudes towards health and to publicise the need to take care of one's own health as a result of recognising it as one of the fundamental values in human life.

Health education is defined as a system of educators' influence, which aims at the acquiring by learners of knowledge about the human body (the overall physical, mental, and social spheres), developing skills, abilities and attitudes determining the maintenance and strengthening of health, and the application of hygiene principles in everyday life. Health education is an integral part of shaping the full personality of a human being, and is aimed at people of different ages, but especially at children and young people.

In today's technology-rich world, changes in lifestyle, work, study, and leisure activities are exerting a significant impact on health. Health promotion, as well as health and environmental education, have an influence on the personal and social development of every human being from an early age, especially through the provision of information about health and changes in lifestyle.

The process of implementing health education should be carried out on several significant levels of human life, namely in education, in workplaces (institutions), and also in retirement (senior education).

One of the basic tasks of schools is to prepare pupils for life, so that in the future they can make the right choices on health matters. Skills and habits related to a healthy lifestyle are formed in the early stages of life, because then the child's psyche is sensitive to the environment. It is difficult to change this later on, so the skills, habits, and attitudes acquired at that age will be preserved in later years.

The most common forms of health promotion in schools include workshops, assemblies and lectures, shows, talks, educational films, excursions, trips, meetings with the school nurse, contests, participation in competitions, tournaments, campaigns, and sports and recreation events.

The authors of the projects of educational programmes, as well as those who conduct various forms of education (teachers, educators, healthcare workers), should particularly focus on making pupils aware of the relationship between human health and their lifestyle, as well as the physical and social environment in which they live.

One of the fields in the protection of the health of workers, in addition to the assessment of the working environment and preventive healthcare for workers, is workplace health promotion. This is a very important, and a still underestimated, link in a properly functioning and comprehensive occupational healthcare system.

Workplace health promotion involves a range of organised, over and above obligatory and voluntary, activities going beyond the traditional tasks of medical prevention, aimed at making changes in the social and organisational environment of the workplace. These are activities which extend further than the employer's responsibilities regarding employee health protection and occupational health and safety.

The workplace health promotion strategy during the coronavirus pandemic should focus on the so-called positive aspects of health, the observance of the principles of personal hygiene, the preservation of the appropriate contacts and social relations, fitness, and resistance to stress. Health promotion is undertaken so that employees feel good in their workplace, have fewer sickness absences, become more involved in the development of the company, and function better in professional and everyday life, and, as a result, the company better fulfils its economic tasks.

The most common practice is to create on the company's premises specially arranged spaces for exercises and gymnastics, employee gyms, rehabilitation and sports centres, and, in some cases, also football pitches. Such places should be provided with equipment for both strength and aerobic training. Employees should also be consulted there on rehabilitation, actually provided with rehabilitation or relaxing massage, and advice on health and special individual training.

One of the most important problems concerning health promotion is taking care of health in post-working age. Ageing is a challenge not everyone can cope with. Awareness of the problems which can occur in old age, suitable preparation for this phase of life, and a proper attitude towards one's own and others' old age, will undoubtedly help everyone to experience this period in the best possible way, using the variety of experiences of one's whole life. Old age is not isolated from earlier periods of life – from both positive and negative experiences. Contentment in old age is often associated with the feeling of subjective satisfaction, a sense of joy, and happiness in relations and contacts with others.

Healthy and active physical ageing most often manifests itself in the absence of chronic diseases, the lack of constraint on functioning, being active, independence in everyday activities, mental self-care, including the lack of limitations on cognitive and intellectual functions, mental well-being, willingness to acquire new knowledge and new skills, and, in the social aspect, participation in social life and social relations, and the maintenance of strong social ties. The network of social relations and ties includes the family, groups of friends, acquaintances, neighbourhood groups, a religious community, and formal organisations.

In conclusion, it should be stated that the increased focus on the problem of health and food security is coinciding with an increasing level of education about, and awareness among society of, the direct link between health and food consumed, and with the progress of science, which makes it possible to

detect threats and improve techniques for combating them. These actions are particularly important in the process of developing health security during the coronavirus pandemic.

Both health security and food security require legal protection, i.e. legal provisions on the requirements for food and the methods for enforcing them. The aim of establishing such legislation is to safeguard the health and life of humans, and to protect them from harmful physical, chemical, and biological agents.

The World Health Organisation (WHO) recommends that the flow be reduced of information which causes discomfort and anxiety. In such a situation, it is best to limit the flow of information to the recommendations of sanitary and epidemiological services, and other reliable sources of knowledge, which, in practice, will facilitate better adaptation to the current conditions. Knowledge of the ways the virus is transmitted, how to reduce the risk of infection, and how to take proper care of hygiene, will be the most useful. In this way, safety can be improved in real terms, which will also benefit mental health.

At the same time, in order to improve the efficiency of the healthcare system, particularly in view of the presence of the coronavirus pandemic, it is essential to carry out actions aimed at the better management of healthcare facilities, and at improving the quality of the health services they provide. Training should also be addressed to the administrators of public funds in healthcare.

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Kształtowanie bezpieczeństwa zdrowotnego w dobie pandemii koronawirusa

Streszczenie

Treść artykułu pokazuje jak istotnym aspektem jest szeroko pojęte bezpieczeństwo zdrowotne, profilaktyka oraz edukacja zdrowotna we wszystkich możliwych etapach życia człowieka. Artykuł zawiera charakterystykę podstawowych zagrożeń bezpieczeństwa zdrowotnego człowieka wywołanych pandemią koronawirusa. Autor wiele miejsca poświęca profilaktycznym walorom działań edukacyjnych w kształtowaniu poczucia bezpieczeństwa zdrowotnego człowieka. Idea przewodnia artykułu dowodzi, że bezpieczeństwo zdrowotne w dobie panowania pandemii koronawirusa wraz z poczuciem spokoju i stagnacji mają podstawowy wpływ na stan samopoczucia człowieka. Wszystko to łączy się w przyjmowaniu odpowiednich postaw i wyznaczaniu jednocześnie obszar koncentracji działania człowieka, a więc jego edukacji w dobie zagrożeń zdrowotnych.

Słowa kluczowe: zagrożenia, bezpieczeństwo zdrowotne, pandemia koronawirus, poczucie bezpieczeństwa