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FOREIGN EXPERIENCE OF COMMUNICATIVE ACTIVITY IN PUBLIC MANAGEMENT OF HEALTHCARE AS AN IMPORTANT COMPONENT TO OVERCOME COVID-19 PANDEMIC

Abstract. The article analyzes contemporary relevant foreign sources and outlines, the approaches to communication activities and communication policy in

public administration and public management aimed to overcome the COVID-19 pandemic. Revealed that the best results in the world were shown by Singapore, Japan, and Hong-Kong, which lead to the lowest level of the virus spreading in those countries. Also in that countries best results in regulations of related social processes. It was given analyzes of mechanisms and communicative instruments used by governments of these countries. It was highlighted the role of modern media and socialmedia in control of social isolation, intensification/decrease of panic among the citizens, spread/refutation of misinformation during a pandemic COVID-19. The analyses of best practices in the coordination of medical sites show the role of consultation via telemedicine and the Telehealth net. Analyzed four different strategies according to countries in which it used: USA, China, South Korea, and Europe. Defined directions of Telehealth net activities and usage of method of telemedicine which are: Triage of patients and decisions about hospitalization in certain medical institution. Consultations and distance treatment for the patients with COVID-19 who are on self-isolation. Coordination between clinics and consultation of healthcare specialists. Distance-learning for healthcare workers about anti-epidemic measures and peculiarities of work with a patient with COVID-19. Providing routine consultations for chronic and palliative patients. Telehealth approaches significantly reduce congestion in health care facilities, reduces the risk of infecting other residents and medical staff, and leads to economic benefits by reducing the use of personal protective equipment.

Keywords: public administration, public management, health, pandemic, communication, communication technologies, health communications, health communications, telemedicine, coronavirus, Telehealth, COVID-19.

ЗАРУБІЖНИЙ ДОСВІД КОМУНІКАТИВНОЇ ДІЯЛЬНОСТІ В ПУБЛІЧНОМУ АДМІНІСТРУВАННІ ОХОРОНОЮ ЗДОРОВ'Я ЯК ВАЖЛИВА СКЛАДОВА ПОДОЛАННЯ ПАНДЕМІЇ COVID-19

Анотація. Наведено аналіз сучасних актуальних зарубіжних джерел та на основі отриманих даних виділено підходи щодо комунікативної діяльності в публічному управлінні та адмініструванні спрямованої на подолання пандемії COVID-19. Виявлено, що найкращі результати показали Сінгапур, Японія та Гонг-Конг, що призвело до незначного розповсюдження вірусу та своєчасного контролю соціальних процесів, пов'язаних з ним на території цих країн. Проаналізовано механізми та комунікативні інструменти, що були задіяні урядами цих країн. Розглянуто роль сучасних медіа в керуванні соціальною ізоляцією, розповсюдження або зменшення паніки та спростування, або розповсюдження невірогідної інформації щодо пандемії COVID-19. При аналізі найкращих практик стосовно координації роботи закладів охорони здоров'я та надання медичної допомоги населенню, виявлена роль методу телемедичної консультації і роботи телемедичної мережі. Виокремлено та проаналізовано чотири стратегії відповідно до країн, які розробили вектор впровадження методів телемедицини: США, Китай, Південна Корея та Європа. Визначено напрями роботи телемедичних ме-

реж. У процесі дослідження виявлено основні напрями використання методу телемедицини: сортування пацієнтів та прийняття рішення щодо їх госпіталізації; надання допомоги та консультацій пацієнтам з COVID-19 на самоізоляції; координація між лікарнями та забезпечення консультацій спеціалістів вузького профілю; навчання медичного персоналу щодо протиепідемічних заходів та роботі з пацієнтом з COVID-19; забезпечення рутинних консультацій для хронічних і паліативних пацієнтів; використання дистанційних комунікативних технологій консультацій та навчання значною мірою зменшує перевантаження на заклади охорони здоров'я, зменшує ризик зараження інших мешканців та медичного персоналу і призводить до економічних бенефітів завдяки зменшенню використання засобів індивідуального захисту.

Ключові слова: публічне управління, публічне адміністрування, охорона здоров'я, пандемія, комунікативна діяльність, комунікативні технології, комунікації в охороні здоров'я комунікації в охороні здоров'я, телемедицина, коронавірус, Telehealth, COVID-19.

ЗАРУБЕЖНЫЙ ОПЫТ КОММУНИКАТИВНОЙ ДЕЯТЕЛЬНОСТИ В ПУБЛИЧНОМ АДМИНИСТРИРОВАНИИ ЗДРАВООХРАНЕНИЕМ КАК ВАЖНЫЙ ЭЛЕМЕНТ ПРЕОДОЛЕНИЯ ПАНДЕМИИ COVID-19

Аннотация. Проведен анализ современных актуальных источников и на основании полученных данных выделены подходы к коммуникативной деятельности в публичном управлении и администрировании, направленном на преодоление пандемии COVID-19. Выявлено, что наилучшие результаты показали Сингапур, Япония и Гонг-Конг, в следствии чего распространение вируса на территории этих стран было минимальным, а контроль за социальными процессами, связанными с ним, был своевременным. Проанализированы механизмы и коммуникативные инструменты, которые были задействованы правительствами этих стран. Рассмотрена роль современных медиа в управлении социальной изоляцией, распространения либо уменьшения паники, распространения либо опровержения недостоверной информации, касающейся пандемии COVID-19. При анализе лучших практик координации работы учреждений здравоохранения и предоставления медицинской помощи населению, выявлена роль метода телемедицинской консультации и работы телемедицинской сети. Выделено четыре стратегии в соответствии со страной, в которой они применялись: США, Китай, Южная Корея и Европа. Определены направления работы телемедицинских сетей. В исследовании обозначены основные направления использования метода телемедицины: сортировка пациентов и принятие решения об их госпитализации; оказание помощи и консультация пациентов с COVID-19 на самоизоляции; координация между больницами и обеспечение консультаций специалистов узкого профиля; обучение медицинского персонала противоэпидемическим мероприятиям и работе с пациентом; обеспечение рутинных консультаций

для хронических и паллиативных пациентов. Использование дистанционных коммуникативных технологий, консультаций и обучение в значительной мере уменьшает перегруженность учреждений здравоохранения, уменьшает риск заражения других граждан и медицинского персонала и приносит определенные экономическую выгоду за счет уменьшения использования средств индивидуальной защиты.

Ключевые слова: публичное управление, публичное администрирование, здравоохранение, пандемия, коммуникативная деятельность, коммуникативные технологии, коммуникации в здравоохранении, телемедицина, коронавирус, Telehealth, COVID-19.

Formulation of the problem. Today, humanity is facing a new pandemic. We can already say that the number of patients who exceeded the psychological mark exceeded one million patients, and the number of deaths is much more than ten thousand.

In the context of a pandemic, it becomes vital to achieving the following goals: maximum prevention of the spread of the disease among the population, by isolating and social distancing people who may be infected and healthy, instant response to the outbreak, and achieving stable operation of key public services. Therefore, there is a need to change approaches to diagnosis, treatment, development of vaccines and medicines, as well as to change communication activities aimed at both maximum isolations of infected people and coordination of the work of health institutions, which are implemented by public administration and administration bodies. The World Health Organization (WHO) identifies that a multisectoral approach and community involvement is needed to end the pandemic.

In Ukraine today, there are significantly fewer cases of this infection than in Europe or the United States of America, but the country has introduced unprecedented quarantine measures. An urgent area of research is a very rapid study of world experience in communication and remote communication tools for patient counselling, the interaction of health professionals and coordination of administrative bodies and health care institutions and the introduction of these tools in communication activities in public management and health administration our country.

Analysis of recent research and publications. Fortunately, pandemics are not very common. The last flu pandemic, according to the WHO, was in 1968, and the world has changed significantly since then [1]. In the scientific literature until 2020, there is a small amount of research on communication activities during a pandemic.

At the same time, in the domestic literature, there is no analysis of the existing problems of communicative activity and communications in the modern conditions of the pandemic, considering the specifics of public management and administration.

The purpose of the article. Analysis foreign experience of public management and administration on the strate-

gy of communication activities and the introduction of communication tools in health care in a pandemic and total quarantine.

Presentation of main material. The World Health Organization reports that the new coronavirus pneumonia caused by SARS-CoV-2 was qualified on January 30, 2020, as a global challenge to the public health system and requires unprecedented measures to eliminate it and stop its spread around the world [2].

The WHO calls for an assessment of the situation and the use of the most appropriate mechanisms to detect, protect and treat the virus, to take all possible measures to minimize the transmission of the virus, and to use innovative approaches to protect vulnerable groups of patients and doctors.

It can be noted that different countries provide such important areas as public management and administration of communication activities, communication in public management and administration in health care, and purely communication in the field of health care.

Many researchers note the importance of developing a communication strategy to ensure the best response to challenges and as soon as possible to overcome the COVID-19 pandemic [3, 4].

Legido-Quigley and co-authors studied the response of health systems to the COVID-19 pandemic in Singapore, Japan, and Hong Kong. In all three locations, the spread of the virus was low, and the systems were able to cope and adapt to the new pandemic.

In Hong Kong and Singapore, mechanisms were used, including communication, that was involved in the Severe Acute Respiratory Syndrome (SARS) epidemics in 2002/03 in Hong Kong and Singapore, H5N1 in Hong Kong, and H1N1 type of influenza in 2009. In these countries, coordination between ministries, agencies and institutions was established during the first week of the pandemic. While Japan began work on communications and coordination of the pandemic only in February 2020, which led to some poorly controlled outbreaks.

Plans have been developed in all three countries to support the routine operation of health services. However, it was noted that all three countries faced problems in integrating and coordinating services. In Singapore, remote meetings were held almost daily between managers of Regional Health Systems, directors of Health Care Institutions (HCIs) and representatives of the Ministry of Health. In Japan and Hong Kong, communication between representatives of governments and HCIs representatives was imperfect and needed to be improved.

A significant problem identified by researchers is public communication about risks because the question of who citizens trust is very important: official sources or rumours and misinformation.

The best results of the study were found in Singapore, where the Ministry of Health reported daily on the pandemic situation through modern channels like Telegram and WhatsApp groups, which involved doctors, microbiologists, virologists who answered questions and denied inaccurate information circulating in the community [5].

According to Raina M. Merchant and Nicole Lurie, during today's pandemic, social media has played a very important role not only in informing and providing information from the authorities but also in becoming a powerful communication tool for maintaining social ties and providing first aid. According to them, managing social isolation will be particularly difficult for already disadvantaged groups, such as the elderly, people with low socio-economic status or housing problems, people with chronic illnesses or disabilities, and people without documents. Social media should be used to raise awareness of the needs of these groups and to develop new methods for the community to mobilize resources and support in the absence of physical contact [6].

Besides, Vernon J Lee and co-authors note that in the government's communication with citizens, much emphasis has been placed on social responsibility and training on how to act during a pandemic. Researchers also note the important contribution of not only traditional media (television and print) but also the significant role of targeted communication through social networks and groups in messengers. There is also an effective and timely response to false information from the website of the Ministry of Health and other government agencies [7].

Wilder-Smith's study examined standard public health measures to stop human-to-human transmission in China: isolation, quarantine, and social distancing. The study notes that it is particularly important to use social media intelligently during a quarantine that covers the entire society since social media provides an opportunity to report the reasons for the quarantine, calm down, provide practical advice, and prevent false rumours and panic [8].

Mirco Nacoti and co-authors, after studying medical care in hospitals in Bergamo, Italy, note that the old model, both medical and communication, which was defined as a patient-centric model, showed its complete failure in the catastrophic COVID-19 outbreak on the south of Italy. Coordination between hospitals and regions failed, leading to hospital overcrowding and resulting in increased mortality not only in the COVID-19 patient groups but also in other non-infected critical patients (strokes, heart attacks, acute surgical pathology, etc.). The researchers conclude that communication activities in a pandemic should include coordination and communication not only with hospitals but with the entire population. Thus, researchers determine that mobile medical teams on the one hand and remote medical communications with the help of information and communication technologies can reduce the load on the hospital, and provide an opportunity to improve both patient logistics and accessibility of HCIs for patients [9].

According to many researchers, it is advisable to use telemedicine networks to address most of the issues related to the coordination of the work of institutions and the provision of routine planned care. Analysing the approaches taken by governments in overcoming the COVID-19 pandemic, Kenneth Okereafor and co-authors identify four strategies according to the country or group of countries that have developed one or another vector of telemedicine

implementation: the US strategy, the Chinese, South Korean and European strategies [10].

The US strategy, according to research by Mike Miliard, is primarily aimed at legally defining and streamlining the current regulatory framework for the use of telemedicine in overcoming the COVID-19 pandemic [11].

Yankai Zhai and co-authors argue that the Chinese strategy aims to maximize the practical use of telemedicine to provide care to patients [12].

Kenneth Okereafor notes that South Korea used data collected and aggregated from social media to combat the COVID-19 pandemic, which was then processed by artificial intelligence to search for disease patterns and develop a coordination strategy for HCIs and physicians assisting patients in self-isolation [10; 13].

The European model is based on the recommendations proposed by the National Health Service of Great Britain (NHS). Trisha Greenhalgh and co-authors determined that the NHS strategy using the telemedicine method is primarily aimed at detecting new cases and reducing hospital visits to alleviate the burden on them. So, the NHS offers a web service where you can check for symptoms during a survey on the website: https://111.nhs.uk/covid-19. After passing the survey, the patient is given a validated answer as to whether he/she has signs of COVID-19 and further actions are suggested. For those who want to get general answers and recommendations regarding COVID-19, there is a corresponding telephone line [14].

When systematizing modern scientific views, we can identify the following main areas of telemedicine, which have shown their effectiveness in response to the COVID-19 pandemic.

1. Sorting patients and deciding whether to hospitalize them in hospitals designated for patients with COVID-19 or in other hospitals.

2. Providing care and advice to patients with COVID-19 on self-isolation and treatment of the patient at home.

3. Coordination between hospitals and providing consultations to specialists.

4. Training of medical staff on anti-epidemic measures and work with patients with COVID-19.

5. Providing routine consultations of patients with non-emergency pathology of chronic and palliative patients.

One of the most difficult challenges facing medical systems has been the overload of the hospital network in countries with COVID-19 outbreaks, many studies suggest using the experience of medical sorting as triage of patients with telemedicine for mass injuries before they arrive in the Emergency Department (ED).

Thus, Judd E. Hollander and Brendan G. Carr studied the telemedicine triage system of patients with COVID-19 in various the US HCIs and noted the effectiveness and safety of this approach. In Houston, the USA, the ETHAN (Emergency Telehealth and Navigation) system has been launched, which aims to conduct telemedicine sorting by paramedics at home or in an ambulance, which significantly reduces the number of patients with COVID-19 to the ED. The ED doctor can use a smartphone or webcam to assess the patient's condition and decide on his hospitalization or treatment at

home. At the same time, the family doctor can continue to monitor the patient and make timely decisions about the patient's hospitalization. The authors propose to develop and use standardized algorithms for triage of a patient with COVID-19 through telemedicine consultation. Researchers also note that this tactic protects the doctor from an additional risk of infection [15].

Besides, according to Robert Turer and co-authors, the use of telemedicine will significantly reduce the economic burden on the health system, because each visit to these patients would need to use Personal Protective Equipment (PPE), such a need does not have in telemedicine consultations [16].

An important issue is the management of patients who remain at home or are in self-isolation after contact with a patient with COVID-19. Many clinics like Jefferson Health, Mount Sinai, Kaiser Permanente, Cleveland Clinic, and Providence are already implementing telemedicine systems that allow patient monitoring at home.

Kenneth Okereafor and co-authors determine that a list of telemedicine counselling scenarios should be offered for people who are in isolation: follow-up for the asymptomatic course, specialized medical counselling for patients with the uncomplicated and mild course, medical services for the treatment of patients who cannot reach specialized and highly specialized medical care and even geolocation monitoring of individuals who must be monitored for returning from countries with the COVID-19 outbreaks [10].

Hyunghoon Cho and co-authors also note the high importance of the ability to track the cell phone of a patient with COVID-19 to identify contacts and risks of infection. The authors have analyzed various mobile applications and strategies, and note that there are many issues today, as the undoubted benefits of anti-epidemic measures and the detection of new cases of infection can be offset by serious violations of shelf life [17].

Teleconferencing is one of the important components of telemedicine, and in the case of a developed telemedicine network has the potential to coordinate the work of clinics in the territory.

According to Jennifer M. Schmidt, a clear action plan should be created with the identification of patient routes following the existing or existing symptoms. According to the groups of symptoms determined by telemedicine, patients can be referred to the HCIs identified according to the route of patients. It is especially important to determine clear indications for referral of patients in need of high-tech treatment: extracorporeal oxygenation (extracorporeal membrane oxygenation (ECMO)), stenting, and hemodialysis, etc. [18].

Calton and co-authors note that the outbreak of COVID-19 has changed the general perception of medical care for chronic and palliative patients, leading to the search for other mechanisms for continuing medical care for these patients, as any contact, with a health care provider in itself, becomes a threat for life. The authors note that even before the outbreak of COVID-19, telemedicine was already widely used for this group of patients, so the University of California, San Francisco recommends the widespread

use of telemedicine for palliative patients at home. Today, in the face of the COVID-19 threat, changes and additions are being made to both protocols and legislation.

Many scientists also note the great potential for distance learning of health professionals to implement the same standardized algorithms for the treatment of patients with COVID-19 and other nosologies [19, 20].

In the United States, clinicians and administrators are in favour of urgent changes to the national health insurance program (Medicare), state medical care program (Medicaid) and a private insurance program to enable physicians to conduct and receive telemedicine consultations directly for patients. In line with these needs, the American Academy of Pediatrics has developed guidelines and proposals for a policy of payment for telemedicine consultations under COVID-19 [21], which describe the necessary changes that need to be made to overcome barriers to the provision of medical advice through telemedicine. Many regulatory measures will be relaxed shortly to support change.

Conclusions. The analysis of modern foreign scientific sources allowed to identify certain problems in the coordination of health care facilities, and communication between the participants in the process, as well as ways to solve them in the context of the COVID-19 pandemic.

It should be noted that most foreign experts agree that the communications of the participants in the process were insufficient to counter COVID-19. And the lack of coordination of the HCIs network has led to congestion and deaths not only among patients with COVID-19 but also among other groups of critical patients.

Analysis of the communication activities of the countries affected by the COVID-19 outbreaks revealed the best models for counteracting the pandemic.

Singapore showed the best results in communication between the state and society because immediately after the beginning of the pandemic, measures were taken aimed at communication between government agencies and HCIs, which significantly improved patient logistics and coordination of the COVID-19 network, as well as communication between the state and society, which involved all available mechanisms: classic media as television and print, as well as modern social networks and managers. Social media is used both to disseminate information about COVID-19, to provide advice on the patient's actions in the event of symptoms, to refute myths and rumours, and to overcome psychological problems that arise during social isolation.

A separate topic is the development and implementation of telemedicine, which has several significant advantages during the COVID-19 pandemic: reduces the burden on emergency departments and emergency care in general, improves patient logistics, increases health safety, reduces the economic burden by reducing the need to use personal protective measures, the possibility of training medical staff through the telemedicine network.

Successful experience in the use of telemedicine networks in the fight against the COVID-19 pandemic has been identified, as in many countries

these networks are already established and well-coordinated.

Different countries assign solutions to different problems as the basis of their strategy for using telemedicine networks. In the United States, the main issue in the development of the telemedicine network is the legal and regulatory legalization of the telemedicine method, prescribing algorithms that allow physicians to receive payment for telemedicine consultations under health insurance programs, and easing personal information requirements. The Chinese strategy of using telemedicine methods is aimed at expanding the technical capabilities of providing advice to patients. The South Korean model covers large streams of aggregated data from social networks and uses artificial intelligence algorithms to determine and predict pandemic patterns. The European model aims to detect new cases and reduce hospital visits.

Among the problems solved by telemedicine can be identified the following five large groups: sorting patients and deciding whether to hospitalize them in hospitals designated for patients with COVID-19 or in other hospitals; providing care and advice to patients with COVID-19 on self-isolation and treatment of the patient at home; coordination between hospitals and providing consultation with specialists; training of medical staff on anti-epidemic measures and work with a patient with COVID-19; providing routine consultations to patients with non-emergency pathology of chronic and palliative patients.

It should be noted that all components of communication activities and individual communications correspond to the general policy of countries in the field of health and public health.

Prospects for further research. The results of the analysis and generalization of foreign studies of communication activities and communications in the field of health and public health during the COVID-19 pandemic showed that communication activities and communications in public management and public administration include a fairly wide range of issues that are sometimes outside the existing health model. Prospects for further research will concern more specific aspects of communication activities and communications during the pandemic, and the development of a model of communication activities that will meet and will be implemented in public health and public health in Ukraine.

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