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MEDICAL SAFETY, SECURITY AND INTELLIGENCE

Abstract: *The COVID-19 pandemic was not only medical and health services, as their name suggests, have the task of informing their governments about all possible threats and risks that come from the internal or external arena. In order to be able to inform and for the state to be able to react readily, numerous conditions and preconditions must be met, which will be discussed in this article. By analyzing the content of educational institutions that deal with medical sciences, security science, or intelligence, numerous shortcomings in the education process itself can be easily identified, which certainly have their consequences in practical work as well. The intelligence services did not have a clear picture or knowledge about the possibility of threats such as in the case of COVID-19, because the pandemic itself and the number of victims are proof of that. In other words, experts in medical sciences did not have the opportunity to exchange their information and to educate experts from Security Science or Intelligence in a certain way so that they would recognize or detect a threat. In the same way, experts in medical sciences do not know nor are they educated to understand the intelligence cycle or knowledge in the field of Security Science or Safety.*

Keywords: Medical Safety, Security, Intelligence, Security Studies, Medical Studies, psychological operation, hybrid warfare

Introduction

Numerous victims of the COVID-19 pandemic, which are measured in millions of victims, in addition to epidemiological and other health issues, have opened up questions from domains or areas of science that are at the intersection of Medical Sciences and Security Science and its sub-disciplines⁴. Unfortunately, we learn from the omissions or mistakes that the pandemic itself caused. Every mistake in medicine or security can result in not one but many hundreds of thousands and even millions of victims. Doctors of medicine are not trained in the intelligence cycle and Security Science, nor are members of the intelligence services trained in the knowledge and skills of doctors of medicine. In such a situation, the gap created allowed the deadly virus to spread freely around the world. Those who should have detected it in time and taken all protective measures did not even understand what a threat it was not only to national security but also to the entire world and the international community. Why were we not prepared, neither in intelligence nor medically, for the horrors of the COVID-19 pandemic? Can we expect similar situations in the future? This article has the possibility to indicate only some elements of the system that did not work. That's why we will try to explain what are the key terms that are rarely mentioned in the literature and where they are mentioned there is absolute confusion or even confusion of terms. Therefore, for the purposes of this article, we will try to shed light on what Medical Safety, Medical Security, or Medical Intelligence are.

Medical Safety in the Context of Medical Security and Intelligence

In short, Medical Safety is technical-technological protocols and means used in securing medical facilities and employees. This includes all measures from the application of cameras and other devices such as detectors, and cards for employees in the control of entrances and exits of hospitals or other medical institutions. Medical Safety in the context of Medical Security and Intelligence does not mean the standard terms of Medical Safety, which includes equipment for personal protection of employees as well as medical safety protocols in general. In order to better understand the entire cycle of security when we talk about medicine and medical institutions, in

⁴ See WHO COVID 19 (n.d.)

this paper we will focus only on those significant elements of the cycle that relate to the application of Security Science from Safety, Security and Intelligence in medicine itself.

Medical Security

Medical Security refers to the activities of man and the activities of nature. Under human activities, there is terrorism, sabotage, states of war and war-induced effects, an increasing number of physical violence against medical workers and other personnel, cyber-attacks and other risks. With digitalization in medicine, there is a great risk of the above-mentioned cyber-attacks on medical institutions. Cybercriminals continue to exploit vulnerabilities and exfiltrate confidential patient data and other confidential information. The healthcare sector offers cybercriminals a rich source of confidential data and is very easy to exploit as the defense and security controls are weak. (J. Besenyő, A. M.Kovács, 2023). In order to understand Medical Security as well as to be able to deal with all those threats and risks that come from the internal sphere or from the outside, it is necessary to know what Security Science is, what kind of science it is, what are the general and special theories in which this science-based and most of all, I need to know what are the general and special methods of this science. Without knowledge of Security Science methods, we will not be able to detect the mentioned risks and threats. In order for someone to be a professional in the field of Medical Security and even more so in Medical Intelligence, the candidate must be educated both in the field of medicine and in the field of Security Science. Security Science is the science about the condition/s of the state as an organized society, and not only any condition/s, but condition/s in which the state functions normally, and develops. These condition/s and processes depend on internal and external risk factors and threats. Security as science uses all the general methods of the social sciences. However, Security Science differs from all other social sciences by special methods that are from the natural sciences. These are data collection methods, processing, assessments, data analysis, and prediction methods. (J.Piwowski D.Trifunovic, 2023). It is these special methods that are used when making security risk assessments as well as intelligence data collection based on the intelligence circle. In many situations, doctors of medicine met people (which had consequences) who had contact with the special effects of various intelligence services. Medical doctors were

able to ascertain the effects of those actions, but not to understand how and in what manner these special actions (psychological operations against the civilian population or psychological warfare) were carried out. (Linebarger, P.,2020). Not only civilians are threatened by these special operations, but also government employees. It is one of the most extraordinary cases in the history of science: the mating calls of insects were mistaken for a "sonic weapon" that led to a major diplomatic row. Since August 2017, the world media has been absorbed in the "attack" on diplomats from the American and Canadian Embassies in Cuba. While physicians treating victims have described it as a novel and perplexing condition that involves an array of complaints including brain damage, the authors present compelling evidence that mass psychogenic illness was the cause of "Havana Syndrome." (Baloh, R.W., Bartholomew, R.E.2020). To understand the concept of "special war", we must look at the threads that have led to the fact that modern war conflicts are no longer viewed with the mandatory sign of "armed". We must understand that the result of a war conflict does not necessarily have to be the use of armed force and that some other forces can influence the outcome of war conflicts. This approach to the phenomenon of war, as important factors, must take into account: the concept of defense and war doctrine, as well as the political and economic means of applying force to all participants in the conflict. Taking this point of view, we look at the strategy, operations and tactics of the use of force in a special war; which further leads us into the world of military science systems and security sciences. When we step into the world of Security science, we will try to look at the phenomena of special warfare through which enemy activities are manifested. These phenomena are part of the reality that a person experiences (actively or passively) consciously or unconsciously. If a person is aware of these phenomena, he will try to conceptually define them. That is why we will also strive to define the phenomena of special war. To understand the origins of the special war, we must adopt a specific approach to studying and interpreting events on the global stage. This approach, a significant factor, must take into account: the geography, history, culture, politics, economy and technological development of all participants in the conflict. Taking this point of view, we look at the prescriptive dimension of the special war phenomenon, but at the same time, we also open its predictive dimension, which further leads us into the world of geopolitics. Special psychological operations carried out by one or more intelligence agencies against a nation, state, or certain groups are not intended only for individuals, but for wider social masses. The goal is to use

information to influence the awareness of the citizens who are the target of these actions so that they have a wrong or distorted picture of reality. In modern conditions, such operations are also called hybrid actions or hybrid war. The consequences for people's consciousness and psyche are great. Medical doctors know very little about the way a hybrid war or a special war is waged, except that they face the consequences. However, it is difficult to treat or provide medical assistance to persons affected by such effects if they do not know and do not know anything about the real causes. Hybrid warfare is not class warfare that signifies armed conflict. Hybrid warfare is waged by unconventional means, primarily through the application of information technologies in, so to speak, the newly created space that we define as cybernetic. This area has become very important for the work of security services in terms of defining possible threats coming from such areas, but also in terms of conducting special psychological operations according to the marked goals, which might be a state, community, people, vital infrastructure, or even important individuals. Hybrid warfare is part of special war, but the term refers to a specific action backed by a foreign intelligence service or services using modern means such as the Internet, social networks, portals and specially designed sites in the cyber sphere. In military theories, cyberspace is marked as the fifth combat space next to water, air, land and space. We are witnessing a great expansion of the aforementioned fifth combat space, which knows no borders, fences, or social or cultural barriers. This space directly enters the privacy of each individual and with powerful techniques as well as analytical programs "learns" all the habits of the user. Hybrid actions concentrate on several phases. The first phase is the goal selection phase. The second phase is the phase of preparation of actions. This phase involves gathering all the useful information from history, culture, politics, economics, energy, etc. - in fact, all the information that can greatly affect the interest and awareness of the goal. The third phase is the phase of acting. Platforms for the transmission of information, misinformation and other content that are actually launched by the security service are most often used as operational instruments. The fourth phase is the phase of verification of the achieved results and the phase in which, after the achieved goals, one shifts focus from the attack to the defense of the achieved. The era of hybrid operations began with Russian hybrid activities in Estonia in 2007 and Georgia in 2008. (D.Trifunovic, D.Obradovic, 2020). Is a person under the influence of a special war or hybrid actions a person who can reason based on a distorted reality that is presented to him in different ways? Security experts know what they want to achieve with these actions in "enemy territory"

or towards the group towards which these actions are directed. Can our fellow medical doctors saturate the nation and individuals and in what way? Here are some more examples. In Serbia, Russia has been carrying out a hybrid operation for years, which this country has carried out before. These hybrid actions or psychological or information warfare aim to turn Serbia and the citizens of Serbia against the EU, and NATO, with a complete distortion of reality to the extent that the author of this article introduced the term "*rusopatophilia*" for the citizens of Serbia who are included in these actions. This term refers to the citizens of Serbia who put Russia in a position above their state of Serbia and who can justify everything that Russia and the government there do to incredible limits. Russia's hybrid effect or psychological operations reached its peak when pro-Russian media in Serbia began to publish news that Ukraine attacked Russia in 2022 despite the obvious fact that Russia had committed aggression against Ukraine. Russian and pro-Russian media across Europe are involved in a systematic campaign to spread disinformation to influence the citizens of European countries to accept Russian and pro-Russian positions that are contrary to reality or common sense. In terms of defense against the aggressive policy of the Russian intelligence services, the Council of Europe had to adopt certain restrictive measures to suppress these actions⁵. According to NATO, Hybrid threats combine military and non-military as well as covert and overt means, including disinformation, cyber-attacks, economic pressure, deployment of irregular armed groups and use of regular forces. Hybrid methods are used to blur the lines between war and peace and attempt to sow doubt in the minds of target populations. They aim to destabilize and undermine societies⁶. Destabilization and undermining of society can be carried out with terrible psychological propaganda effects with extremely devastating effects for both the individual and the society and the state. What effects do these actions produced by the intelligence services have on people's health? Do these effects cause certain psycho-social changes and what kind? Do those who care about people's health know about these effects and do they understand the consequences? How do medical doctors help people and the community in above mentioned circumstances? Do those who make decisions in a community and state have knowledge about hybrid warfare and how they implement the methods of prevention and protection, and do they even know how to initiate the institutions of the state system in terms of protecting citizens, or does hybrid warfare paralyze

⁵ See "Council of the European Union" (2022),.

⁶ See NATO (n.d.)

them as well? In order to be able to collect information about certain threats and risks to security that come from different sources and are related to medicine, not only in terms of the protection of medical facilities, and employees but also with the general health of people, we must apply the knowledge of Security Science in the field of Intelligence. In this case, it is necessary to combine the knowledge and skills of medicine and Security Science.

Medical Intelligence

According to the United States Department of Defense, **Medical Intelligence** is defined as:

That category of intelligence results from the collection, evaluation, analysis, and interpretation of foreign medical, bio-scientific, and environmental information that is of interest to strategic planning and military medical planning and operations for the conservation of the fighting strength of friendly forces and the formation of assessments of foreign medical capabilities in both military and civilian sectors⁷. Medical intelligence is the application of Security Science in medicine. The intelligence cycle that is implemented in Security Science is applied to the information that is collected in this way, which means: data collection, data processing, assessment of data, data analysis and predictions. In contemporary circumstances, it is becoming more and more evident that Security Science and medicine must develop joint study programs or subjects that will be taught in the process of education.

⁷ See “Joint Staff J-7” (2016)

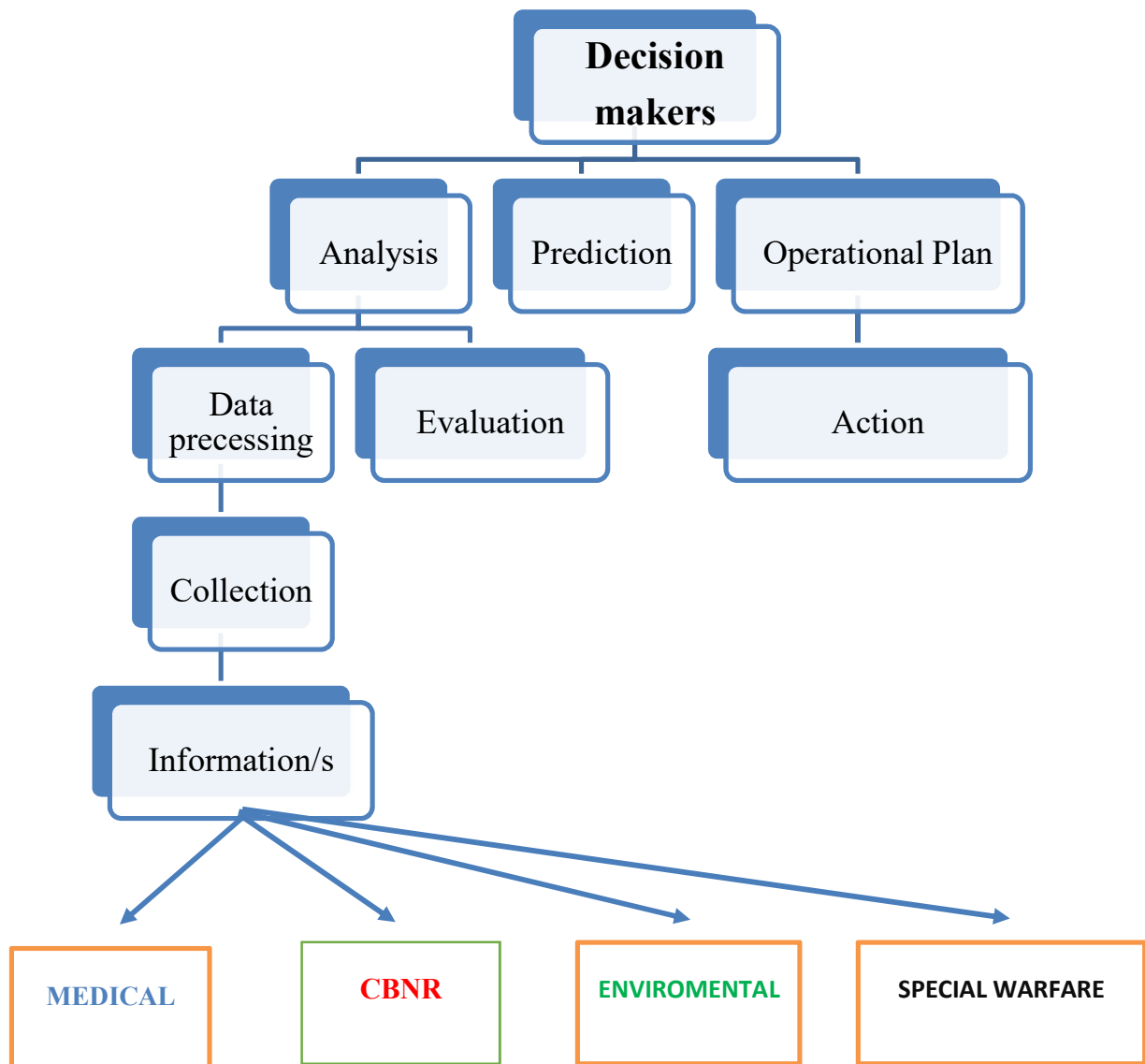


Diagram 1 MEDINT Procedure (Source: Author)

Intelligence data collection implies the collection of all that information about the relevant security threat factors. Intelligence services are part of the national security system and their activities are aimed at collecting data on individuals, groups, organizations, and state actors of other countries who intend to influence the national security system in any way. (D.Trifunovic, 2024). Medical intelligence collects all that information that can harm people's health in any way, whether it comes from traditional risk factors or from atypical sources such as hybrid effects or psychological operations within the framework of special warfare. Special attention

must be paid to the risks from CBNR, and this is where the cooperation between the two sciences must come to the fore.

Types of information

Medical

The medical information that is collected means information about various viruses, diseases and other factors endangering human health, as well as information about medical facilities, hospitals, laboratories, individuals, scientists, doctors and achievements that could be applied or used to endanger state security in any way.

CBNR

CBNR information that is collected refers to information about various threats to people's lives and health that can come from Chemical, Biological, Nuclear, or Radiological agents. In all this, it is necessary to collect data about the agents themselves, institutions, bio laboratories, scientists, achievements and trends in this field and all possible data and analyses about possible risk factors.

Environmental

Environmental information that is collected refers to information about various threats to the lives and health of people that can come from endangering the environment in any way. These threats to the environment can be caused by human acts or acts of nature. In both cases, they can have devastating consequences for people's health and lives. If they are caused by human actions, they can be the result of negligence, coincidence, or human error, or they can be deliberately and purposefully caused. For example, in the case of the flooding of the Fukushima Daichi nuclear power plant, a natural disaster caused a tragedy not only for people's health but also for the environment. (Unravelling the Fukushima Disaster, 2016). On the other hand, the Russian aggression against Ukraine, as one of the consequences of the war and deliberate human activity,

led to the collapse of the dam on the Dnipro River. Huge amounts of water that were accumulated by the dam spilled out and flooded numerous settlements, endangering the lives of people and animals⁸.

Special Warfare

Special warfare denotes the term for special actions such as psychological operations, the aim of which is to spread misinformation, misleading, deceptions and other activities aimed through the network of information at weakening the defense power of the opponent, causing paranoia and fear as well as confusion. Modern special operations are also called hybrid war, which is specific in that it is conducted by one or more intelligence services with the use of modern means of communication, such as the Internet, where there are various chat groups, forums, blogs, websites, portals and other discussion groups. Given that these are operations with psychological effects, especially on the civilian population, it is necessary to examine the consequences for people, especially the impact on mental health. Security Science experts know how to prepare and how to carry out such actions, but medical science experts need to determine the consequences for people and society. Security Science and medical sciences are equally important in this process. To detect such anomalies, it is necessary to educate professionals in the field of Medical Security and Medical Intelligence who, together with experts in medicine and security, would participate equally in the security system of a state.

Conclusion

The COVID-19 pandemic has caused the loss of millions of people. Although there is more than a threat and a risk not only for one country, there was no reaction from the institutions that had to recognize and detect this threat. If the institutions of the state system had detected this danger and risk in time, they could have organized protection measures, including localization, in time to prevent the spread of this deadly virus. Although scientists warned of a possible pandemic a decade ago, nothing was done. In the author's text in the National Geography magazine, Robin Marantz Henig quotes Nobel laureate Joshua Lederberg from his article published in 1988: "The

⁸ See Kullab & Novikov (2023).

ravaging epidemic of acquired immunodeficiency syndrome has shocked the world. It is still not understood widely that it is a natural, almost predictable, phenomenon. We will face similar catastrophes again and will be ever more confounded in dealing with them if we do not come to grips with the realities of the place of our species in nature. A large measure of humanistic progress is dedicated to the subordination of human nature to our ideals of individual perfectibility and autonomy. Human intelligence, culture, and technology have left all other plant and animal species out of the competition. But we have too many illusions that we can, by writing, govern the remaining vital kingdoms, the microbes, that remain our competitors of last resort for dominion of the planet. The bacteria and viruses know nothing of national sovereignties⁹.”(J.Lederberg, 1988). The consequences of this observation, to put it mildly, are mostly focused on the security institutions of a country. Every country reacts to security risks and threats with its institutions. Institutions are part of a country's security system and rely on qualified, specially trained and educated personnel. Even though security and the need for it is as old as human society, most scientists and professionals do not even know what it is. What kind of science is that? Even today, some theorists do not understand the difference between safety and security. Even in some countries, there are no linguistic boundaries for these completely separate processes. The importance of Security Science in Security Studies is even less understood because it is impossible to organize Security Studies without Security Science. Understanding the aforementioned phenomena and working on the development of special methods of Security Science will contribute to the convergence of this science with medical sciences for the general good and the protection of society and the state.

⁹ Experts warned of some pandemic decades ago. Why weren't we ready? National Geographic, By Robin Marantz Henig, A version of this story appears in the July 2020 issue of *National Geographic* magazine.
<https://www.nationalgeographic.com/science/article/experts-warned-pandemic-decades-ago-why-not-ready-for-coronavirus>

References

- J. Besenyő, A. M.Kovács, *Healthcare Cybersecurity Threat Context And Mitigation Opportunities*, Security Science Journal, Vol. 4 No. 1 (2023) Zagreb, Croatia, 2023, p.1
- Council of the European Union (2022), *EU Imposes Sanctions on State-Owned Outlets RT/Russia Today and Sputnik's Broadcasting in the EU*, <https://www.consilium.europa.eu/en/press/press-releases/2022/03/02/eu-imposessanctions-on-state-owned-outlets-rt-russia-today-and-sputnik-s-broadcasting-in-the-eu/>.
- J.Piwowski, D.Trifunovic, *From Security Science to Security Culture*, RIEAS –Research Institute for European and American Studies, Athens, Greece, 2023, p.21
- Baloh, Robert W., Bartholomew, Robert E. *Havana Syndrome: Mass Psychogenic Illness and the Real Story Behind the Embassy Mystery and Hysteria*. Germany: Springer International Publishing, 2020.
- Joint Staff J-7 (2016), *Joint Publication - Department of Defense Dictionary of Military and Associated Terms 1-02 (JP 2-01)*, Directorate for Joint Force Development, J-7, Joint Doctrine Branch, Pentagon, Washington, DC 20318-7000, USA
chromeextension://efaidnbmninnibpcjpcglclefindmkaj/https://irp.fas.org/doddir/dod/jp1_02.pdf
- Kullab, Samya; Novikov, Illia (2023). *Russia covered up and undercounted true human cost of floodings after dam explosion, AP investigation finds*. The Associated Press. Retrieved 20 March 2024
- Linebarger, Paul. *Psychological Warfare*. U.K: Wyatt North, 2020.
- NATO, (n.d.) *Countering Hybrid threats*, https://www.nato.int/cps/ru/natohq/topics_156338.htm?selectedLocale=en
- D.Trifunovic, D.Obradovic, *Hybrid and Cyber Warfare – International Problems and Joint Solutions*, National Security and Future, (Volume 21, br. 1-2.), Zagreb, Croatia, 2020.
- Trifunovic, D. (2024). *Intelligence and Protection of Key (Critical) Infrastructure Objects*. In: Kovács, T.A., Nyikes, Z., Berek, T., Daruka, N., Tóth, L. (eds) *Critical Infrastructure Protection in the Light of the Armed Conflicts*. HCC 2022. Advanced Sciences and Technologies for Security Applications. Springer, Cham. https://doi.org/10.1007/978-3-031-47990-8_1
- Unraveling the Fukushima Disaster. UK: Taylor & Francis, 2016.
- J. Lederberg, *Medical Science, Infectious Disease, and the Unity of Humankind*. JAMA. 1988;260(5):684–685. doi:10.1001/jama.1988.03410050104039
- WHO COVID 19, (n.d.) *Number of COVID-19 deaths reported to WHO (cumulative total)*, <https://data.who.int/dashboards/covid19/deaths>, Retrieved, 19.04.2024