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"ORANDUM EST UT SIT MENS SANA IN CORPORE SANO", THE BEGINNINGS OF HEALTH PREVENTION IN ANTIQUITY

Abstract

The article makes an attempt at providing answers to questions necessary to clarify the doubts related to the universal conviction about the breakthrough of the nineteenth century for the development of health promotion and health prophylaxis. Can ancient texts provide any evidence that it was actually the antiquity that laid the foundations for preventive medicine? Can it be concluded, on the basis of the research conducted by archaeologists, anthropologists and historians, that the increased physical activity and use of diet in antiquity were deliberate preventive actions?

Keywords: antiquity, health promotion, health prevention

„ORANDUM EST UT SIT MENS SANA IN CORPORE SANO" CZYLI POCZĄTKI PROFILAKTYKI ZDROWOTNEJ W STAROŻYTNOŚCI

Abstrakt

W artykule podjęta zostanie próba odpowiedzi na pytania, które są konieczne dla wyjaśnienia wątpliwości związanych z powszechnym przekonaniem o przełomowości XIX wieku dla rozwoju promocji zdrowia i profilaktyki zdrowotnej. Czy na podstawie tekstów starożytnych można stwierdzić, że to właśnie starożytność zapoczątkowała podstawy profilaktyki zdrowotnej? Czy na podstawie badań archeologów, antropologów oraz historyków można jednoznacznie stwierdzić, że wzmożona aktywność fizyczna i stosowanie diety były świadomymi działaniami profilaktycznymi?

Słowa kluczowe: starożytność, promocja zdrowia, profilaktyka zdrowotna

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"You should pray for a healthy mind in a healthy body".
(Juvenal 1918, 67)

Introduction

Health promotion as a social movement emerged in the second half of the 20th century, and the term was first used by Henry Siegerist in 1945 with reference to a series of activities aimed at ensuring proper conditions of life, education, work, physical culture as well as recreation and relaxation. The hitherto mechanical approach to the question of human health and illness which perceived human body as an object, began to be criticized. Medicine itself also was accused of focusing on the treatment of diseases and not on people (Starzyńska-Kościuszko 2018, 322). Holistic medicine proposed at that time, took into account the biopsychosocial context of human health determinants, and its goal was to: "treat the whole person, which means both her/his body, mind and spirit" (Starzyńska-Kościuszko 2018, 322).

The search for new ways of influencing health on a global scale was initiated, especially that, despite the 30 years of the World Health Organization (WHO) activities, the late 1970s noted deterioration of health standards in the world (Wysocki and Miller 2003, 505-512). In 1974, the Canadian Health Minister, Marc Lalonde, published a report entitled *A New Perspective on the Health of Canadians: a working document*. The document highlighted the significance of the four key health determinants which included: people's lifestyle (55%), living environment (20%), biological and hereditary factors (15%) and organization of healthcare (10%) (Wysocki and Miller 2003, 505-512). The *Ottawa Charter* adopted in 1986, was recognized as an act of institutionalizing health promotion, and in practice the tasks of health promotion began to be implemented through its basic components: health education and health-oriented public policy (Lalonde 1974).

1. Health promotion and health prevention

According to a British physician and journalist, editor-in-chief of *World Medicine*, Michael O'Donnell, health promotion is:

> "the art and science of helping people discover the synergies between their core passions and optimal health, enhancing their motivation to strive for optimal health, and supporting them in changing their lifestyle to move toward a state of optimal health. Optimal health is a dynamic balance of physical, emotional, social, spiritual, and intellectual health." (O'Donnell 1986, 4).

Health promotion requires policy makers in all government departments to take action to make health the centerpiece of their policy. In all health-related decisions made by politicians, disease prevention and protection against injuries should become a priority.

Among the elements allowing one to increase control over their own health, three play a key role, namely, good health management (Wojtczak 2009), knowledge and awareness in the area of health as well as healthy cities (Naidoo i Wills 2004). Those elements embrace a wide range of social and environmental interventions designed to protect health and improve the quality of human life by preventing and possibly minimizing the causes of ill health. Thus, they are closely related to another category of medicine, i.e. preventive medicine, which, by controlling risk factors and causes of diseases, aims to prevent the more serious consequences of the disease by its early detection and treatment. Quick and effective actions restoring health and inhibiting the progress or complications of an already existing disease can reduce the occurrence of disability and even permanent invalidity. In addition to disease treatment, rehabilitation and health promotion, preventive medicine has become one of the four main pillars of medicine.

Prior to discovering preventive methods, scientists concentrated on the causes of infectious diseases, which are most often the result of combined genetic and environmental factors. The surrounding environment, i.e. interlinked animate and inanimate components of nature: air, water, food and climate have a significant impact on human mental and physical health. According to the definition adopted in 1996 by the World Health Organization:

> "Environmental health comprises those aspects of human health, including quality of life, that are determined by physical, chemical, biological, social and psychosocial factors in the environment. It also refers to the theory and practice of assessing correcting, controlling and preventing those factors in the environment that can potentially affect adversely the health of present and future generations" (Bearer 2000, 925).

Since the 1960s, preventive healthcare has been commonly divided into three stages of activities related to disease control named respectively as: primary prevention - prophylactics, secondary prevention - screening, and tertiary prevention - reducing the effects (Paszkiewicz and Piotrowski 2017, 78). The beginnings of preventive healthcare are directly related to the development of epidemiological awareness. According to the authors of *Basic epidemiology*, epidemiology as a discipline controls health problems, and as a science deals with factors determining health and ways of its improvement, and its beginnings originate:

> "from Hippocrates' observation more than 2000 years ago that environmental factors influence the occurrence of disease. However, it was not until the nineteenth century that the distribution of disease in specific human population groups was measured to any large extent" (Beaglehole et al. 2006, 1).

Is it really true that nothing had been done before in the area of the initial phase of health prevention aimed at eliminating the life-styles increasing the risk

of illness? Can it be proved that actions leading to increasing individual influence on health or its maintenance and simultaneous abandoning of solely medical treatment (Paszkiewicz and Piotrowski 2017, 78) was proposed and practiced already in antiquity?

2. Health and illness in antiquity. causes of illness

Henryk Kirschner in *Promocji zdrowia na tle medycyny społecznej* (Health Promotion Against the Background of Social Medicine) contended that the main trends of public health were initiated and distinguished in ancient times. The first concerns environmental conditions with an emphasis on environmental hygiene, while the second focuses on a healthy lifestyle (Kirschner 1999). Ancient Greek written sources confirm that already in fifth century BC the Greeks sought a rational explanation for the emergence of diseases and epidemics (Iwańska 2010, 223-237). Did they try, therefore, to prevent them by proposing various types of health support activities? It was believed that man was a natural part of nature, and health meant harmonious interaction of all components of the human body with each other and with the external environment. Those considerations led to the formulation of the humoral theory, according to which good health was ensured by the balance between the four body fluids: blood, phlegm, yellow bile and black bile. The theory empasized also the importance of moderation in everyday life and the role of emotions and the environment in maintaining full health. According to this concept, the human body was subject to the laws governing the whole nature, so a physician should be familiar with them. The theory originated from the island of Knidos and was later developed on the island of Kos, the home of Hippocrates, the father of Western medicine (Krajewska and Głusiuk 2016, 78). The tradition associated with Hippocrates emphasized the role of the natural environment, the weather and the changes of seasons and climatic conditions on the occurrence and development of many diseases described by its representatives, and the humoral theory reflected the awareness of the interdependence of physical and mental health in the ancient Greek world.

Books I and III of the treatise *Epidemics* by Hippocrates accentuate the seasonality of certain diseases. Despite the title of the treaty, which is commonly associated with infectious diseases, Hippocrates himself did not address the problem of infectivity (Iwańska 2014, 175-182). Still, although indirectly, he asked in his works why, among other things, the changes of the seasons can aggravate or stop an illness, lead to a crisis or trigger an illness? Unfortunately, there is no unequivocal answer to this question in Hippocrates' works preserved till today. Or, is this a problem related rather to the ambiguity of interpretation or complexities associated with their translation? Maybe Hippocrates left the struggle with this type of dilemmas to philosophers, and he himself concentrated solely on the work of the physician responsible for the patient's health?

An attempt to answer similar questions, this time formulated more directly, can be found in the works of Aristotle, who lived a few decades later and who, according to researchers was the first to identify the problem of infectivity "Why is it that the plague alone among other diseases infects particularly persons who come into contact with those who are under treatment for it?" (Aristotle 1984, 1320:7:15-16), and he gives the answer in the next sentence, but also in the form of a question:

> "Is it because it is the only disease to which all men alike are liable, and so the plague affects any one who is already in a low state of health? For they quickly become infected by the inflammatory matter caused by the disease which is communicated by the patient." (Aristotle 1984, 1320:7:16-20).

The above problem is discussed in the books of *Problems*, part of the *Corpus Aristotelicum*. This work, one of the most widely read in the past, is nowadays frequently disregarded. Aristotle points there to the changes of seasons as one of the reasons for increasing morbidity (Aristotle 1984, 1319:3:18-21). Another cause mentioned by the ancients were vapours from the earth. Aristotle asked: why do secretions spewed from the earth due to the sun activity cause plague? Lucretius already in the first century BC in *On the Nature of Things* wrote about a putrefactive process that creates lethal particles causing plague: "In earth are atoms of things of every sort; And know, these all thus rise from out the earth - Many life-giving which be good for food, And many which can generate disease, And hasten death" (Lucretius 1916, 6:771-775).

Titus Livius, the author of the *History of Rome*, describing in the first century AD the disease that affected the Romans in 452 BC, pointed to cattle scab as the main source of infection. He also suggested that the primary causative agent of the disease in animals was secretion, and the animals, since their heads are directed to the ground, are more susceptible to diseases caused by it. (Tytus Liwiusz 1956, 324). As another cause of illness, he repeated the common opinion, not only among the Romans, that "it is the air and water, as it usually happens, poisoned with the stench of decaying bodies or something similar, they destroy health to the highest degree" (Tytus Liwiusz 1956, 324).

The problem of secretion as a causative agent of many diseases was confirmed in the 4th century AD by Ammianus Marcellinus in *Res Gestae*. He wrote about the air, which, becoming thick with concentrated fumes from the ground, hinders the removal of secretions from the human body and contributes to the occurrence of often deadly diseases (Ammianus Marcellinus 2002, 276).

The second letter of Dionysius of Alexandria cited by Eusebius of Caesarea in *Church History* from the 4th century AD, also contains information about fumes as a cause of the epidemic:

> "For behold, such fumes are emanating from the earth, such winds are blowing from the sea, there is such a breath from the rivers, and the fog is pouring from the harbor that the only dew is corpse pus, to its last rotting particles. And then people are still surprised and do not know where these constant plagues, why these terrible diseases" (Euzebiusz z Cezarei 1933, 361).

Titus Livius, writing about the plague in Rome in 463 BC, gave the crowding of people in cramped spaces and mutual caring for others as the reason for the spread of the disease (Tytus Liwiusz 1956, 324). Thucydides similarly justified the spread of the disease over 400 years earlier in the *History of the Peloponnesian War*. During the epidemic in Athens, at the beginning of the war in 431 BC, the population of Attica was evacuated and located within the long walls connecting Athens with the port of Piraeus, crowded in the stuffy barracks, and the doctors: "died themselves the most thickly, as they visited the sick most often (Thucydides 2016).

Did not Thucydides' description prove that the problem of contagiousness was known to those living decades before Aristotle? Ammianus Marcellinus, describing the plague in the second half of the third century after Christ in Amida, also emphasized that the great number of people intensified its effects (Ammianus Marcellinus 2002, 277). So, the question remains whether the ancients, being aware of the causes and effects, really remained indifferent and failed to take any preventive measures?

3. Treatment or prevention?

According to some scientists, archaeological and anthropological studies of neolithic societies allow to assume that the contemporary man was characterized by increased physical activity not limited to basic life activity. Similar findings were confirmed by studies of pre-neolithic societies. Stanley Eaton, Marjorie Shostak and Melvin Konner in *The Paleolithic Prescription: A Program of Diet and Exercise and a Design for Living* described the day cycle and the life cycle of the Paleolithic man. Hunters and gatherers of that time had the period of food finding interrupted by one or two days of more intense effort, followed by one or two days of rest or celebration. The time of rest was devoted to visiting others for family, social and commercial purposes, which often involved the necessity of covering long distances, even up to 30 kilometers (Shostak and Konner 1988, 32). Can it be univocally stated on the basis of the research conducted by archaeologists and anthropologists that the increased physical activity and special diet were conscious preventive actions undertook by people at that time?

Ancient written sources often combine diet and exercise. In India, proper diet and physical activity were the norm of everyday life (Snook 1984, 252–254). Indian system of medicine, Ajurweda[2], developed in antiquity and known from

[2] The World Health Organization has recognized Ayurveda as a highly useful system for modern Western civilization and since 1979 has been recognized by the World Health Organization

oral tradition already 3000 years BC, promoted this principle as conditioning health and long life (Tworuschka 2009, 95).

In ancient Egypt, it was most probably Herodotus who in the fifth century BC emphasized the importance of nutrition in the context of manual labour. In *The Histories*, Herodotus mentioned the costs of building the pyramid of King Cheops, among which are the amounts spent on the purchase of vegetables: "It is also marked in the Egyptian letter on the pyramid, how much was laid out for radish, onions and garlic for workers" (Herodot 2005, 147). Modern scientific research seems to confirm Herodotus' account. In 2008, there appeared information about the discoveries of a pathologist, Andreas Nerlich from Munich-Bogenhausen in Munich, who together with his colleagues from the academic hospital analyzed 91 bones and other tissue samples from Egyptian mummies and skeletons from the period between 3500 BC, and 500 A.D. After analysing two mummies, the scientists were able to identify the protozoan *Plasmodium falciparum*, one of the four protozoa of the genus *Plasmodium*, and at the same time the most dangerous malaria-causing parasite. According to the contemporary hypothesis put forward by pathologists, malaria was endemic in ancient Egypt and the research findings finally allowed them to confirm the speculations until now based only on the works of Herodotus or weak premises from Egyptian papyri (Lorenzi 2008). One more point emphasized by ancient authors in the first century after Christ, including Pliny the Elder in the *Natural History*, Pedanios Dioskurides in *Materia medica* or Celsus in *On Medicine* was the healing, as well as preventive role of radish, onions and garlic (Drygas 1995, 124-167). Was the demand for vegetables mentioned by Herodotus and other authors related to the incidence of malaria among workers and the treatment of an already existing disease, or was it a conscious preventive action undertaken by the ancient Egyptians with the aim of preventing not only malaria, but also other diseases?

In the 4th century BC there appeared a work entitled *Huangdi Neijing* (the Inner Canon), whose authorship is attributed to the Yellow Emperor, Huang Di, considered the father of Eastern medicine, who ruled in the third millennium BC. This work constitutes a basic treatise of traditional Chinese medicine and, according to the present state of knowledge, the oldest medical work in human history (of course, if the time of creation rather than the writing of the work will be taken into account). One of the basic principles mentioned in this work is the need to maintain or preserve a constant harmony of man with the outside world. It was regarded as the basis for disease prevention and at the same time the key to long life (Huang Ti 1949; Huard and Wong 1968; Maoshings 2016).

The Greeks, while searching for the causes of diseases, at the same time tried to find ways of treating or preventing them. Was this interest arising only from the prospect of victories in the the first sports competition, i.e. the Greek Games, initiated in 776 BC and later referred to as the Olympic Games, or other

as one of the concepts of health.

occasional sports events? Were the privileges resulting from them the only motive for practicing sport? Xenophon in *Lakedaimonion politeia* quoted Lycurgus, the creator of Spartan laws, who clearly stated that only a healthy and strong woman would give birth to a healthy child, and stressed that Spartan girls were required to be athletic. "That's why he ordered the female to care for a body no less than male. And he established running and strength competitions for them, believing that both robust parents and offspring would be born stronger" (Ksenofont 2008, 17-18). Xenophon's text implies that the ancient Spartans cared for their bodies not only to realize the dream of winning the laurels in sports competitions, but also in result of conscious health-promoting action.

Was Sparta the only polis promoting physical activity of girls and women? Unfortunately, source materials that would confirm a similar appeal in other Greek poleis have most probaly not been preserved till modern times, but can one unequivocally exclude conscious women's activity based on the surviving texts of other authors? Living probably at the turn of the seventh and sixth centuries BC, Thales of Miletus, according to Diogenes Leartios, "used to say" that a happy man was one who was healthy in body, resourceful in soul and of a readily teachable nature: "Τίς εὐδαίμων, ὁ τὸ μὲν σῶμα ὑγιής, τὴν δὲ ψυχὴν εὔπορος, τὴν δὲ φύσιν εὐπαίδευτος" (Diogenes Leartios 1984, 28). If, according to the definition of the maxim, this sentence contains a rule of conduct, then in ancient Greece having a healthy body was one of the essential conditions for achieving happiness. It follows that a healthy body, apart from factors beyond human control, may have been influenced by man's conscious actions. Hippocrates understood the need for physical activity as an inseparable attribute of human life and in his works suggested that exercise should be included in the process of maintaining good health: "Eating alone will not keep a man well; he must also exercise" (Hippocrates 1953, 363). He noted, however, that all those activities must be appropriate to the age, place and time of the year.

Probably, one of Hippocrates' teachers was Herodicus from Selymbria, considered the father of modern sports medicine, who was the first in the history of Greek medicine to be credited with resorting to therapeutic exercises as an aid in the treatment of diseases (Georgoulis et al. 2007, 315-318). To keep the body in good shape, Herodicus proposed massages with olive oil and a proper diet. Exercises and massages were also meant to relax tense muscles, and the therapeutic effects of such measures were aimed at reducing pain and fatigue. (Wiciński 2014, 16).

Could Herodicus and Hippocrates' proposals have been accepted in Rome? In the first century BC, Asclepiades of Bithynia, doctor and philosopher, rejected all treatments used so far and, in return, encouraged the Romans to take rides and strolls, have body massages, undergo diaphoretic treatments and refrain from excessive eating (Smith 1880, 399). Such therapy did not convince Pliny the Elder, who defined it a plague. Hot baths, gymnastics, rubbing agents, liquors served on an empty stomach, provoking vomiting, removing unnecessary hair with

resin, those are methods he contemptuously referred to as "those medicines", and to Asclepiades himself as a charlatan: "Yes it really is! A plague that embraced customs and originated primarily from medicine" (Pliniusz 2004, 252).

That being the case, the question arises how the treatment proposed by Asclepiades, which potentially reduced the pain of a suffering man, could have been accepted only as a preventive measure? It is interesting why similar suggestions for treatment put forward by Aurelius Cornelius Celsus, who lived decades later, did not meet with equal contempt, and his name is mentioned in the work of Pliny the Elder with full approval. In *De medicina*, like Asclepiades, Celsus presents a critical approach to the treatment of all diseases with specially prepared drugs and presents other options for improving health such as moderate exercise, frequent stays in the countryside, avoiding sexual contact and alcohol abuse, taking steps to weight loss, etc. (Celsus 1859, 7).

Diet and exercise do not exhaust the preventive measures in ancient Rome. Designer of war machines from the 1st century BC, author of the Vitruvian man image popularized in Leonardo da Vinci's seminal version, wrote a treaty entitled *The Ten Books on Architecture*, presenting the most valuable source of knowledge about Greek and Roman architecture (Vitruvius 1960). Medicine, according to Vitruvius, is one of the nine scientific disciplines that, as he argued, an architect should master: "For an architect ought not be and cannot be (…) a physician like Hippocrates, though not ignorant of medicine" (Vitruvius 1960, 11).

It is the architect who is responsible for choosing a place for the new city. The city cannot be exposed to any threats hazardous to human health. In order to meet this condition necessary for the establishment of a new city, the architect should choose an area on a hill inaccessible to fog and frost. Vitruvius proposed areas free from blowing winds and located far from swamps, because the combination of morning winds, fog and vapours of the swamp fauna may lead to the contamination of the selected place:

> "But marshes that are stagnant and have no outlets either by rivers or ditches, like the Pomptine marshes, merely putrefy as they stand, emmitting heavy, unhealthy vapours. (Vitruvius 1960, 21).

City walls should not be marked along the sea coast and oriented south and west because, according to Vitruvius, such a city will not be healthy. If:

> "too much moisture enters the channels of a body, and thus introduces disproportion, the other elements, adulterated by the liquid, are impaired, and the virtues of the mixture dissolved. […] By shutting out the winds from our dwellings, therefore, we shall not only make the place healthful for people who are well, but also in the case of diseases due perhaps to unfavourable situations elsewhere, the patients, who in other healthy places might be cured by a different form of treatment, will here be more quickly cured by the mildness that comes from the shutting out of the winds." (Vitruvius 1960, 24-25).

According to Vitruvius, diseases that developed as a result of a cold are difficult to treat in themselves, and the treatment is hindered by the air that has been thinned by the wind. Mild and heavy air, without drafts, can strengthen the sick and accelerate recovery, which is why he suggests that cities should be built in temperate zones.

To find a suitable place to found a city, Vitruvius proposes a proven method of the ancestors, which consisted in sacrificing animals hunted in areas that were planned for inhabitation. The usefulness of the selected place was to be judged upon the appearance of the sacrificed animal's liver. The grey-blue liver meant that the trial had to be repeated, sometimes even several times. When the results no longer raised doubts as to the animal's health, the decision was made to start construction. However, on recurrently finding abnormal animal livers the ancestors decided to resume exploration elsewhere. When the city was surrounded by walls, squares and streets had to be marked out depending on the directions of the world. Their correct layout was a prerequisite conditioning the health of its inhabitants (Vitruvius 1960, 25; Iwańska 2013).

At the same time, at the turn of the first and second centuries AD, Decimus Iunius Iuvenalis, a Roman satirical poet, wrote the famous sentence: "Mens sana in corpore sano", which to this day is translated as: "a healthy mind in a healthy body", i.e. ommiting the fact that this is only a fragment taken out of context. The full version reads:

> "Orandum est ut sit mens sana in corpore sano", which means "You should pray for a healthy mind in a healthy body", because wealth, long life, power, beauty, children are, according to the author, false goods. You should trust the gods who love people more than themselves, and let them choose what they think is best for them. However, if it is necessary to pray "for something", it is necessary to ask only for a healthy body and mind: "orandum est ut sit mens sana in corpore sano. fortem posce animum mortis terrore carentem, qui spatium vitae extremum inter munera ponat naturae, qui ferre queat quoscumque labores, nesciat irasci, cupiat nihil et potiores Herculis aerumnas credat saevosque labores et venere et cenis et pluma Sardanapalli. monstro quod ipse tibi possis dare; semita certe tranquillae per virtutem patet unica vitae" (Juvenal 1918, 67).

One hundred years later, Galen, one of the first commentators on the works of Hippocrates, a Greek doctor of gladiators in Pergamon, and then in Rome, a doctor of Emperor Marcus Aurelius, wrote about the beneficial effects of physical exercises, both for the appearance of the human body and the work of its internal organs:

> "The uses of exercise, I think are twofold, one for the evacuation of the excrements, the other for the production of good condition of the firm parts of the body". (Galen 1951, 54).

Unfortunately, the works of Hippocrates and Galen were not translated into Latin in ancient times. After the fall of the Western Roman Empire, probably the majority of the medical treaties were found in the library resources of the Eastern Roman Empire. An excerpt from the works of Galen and other works of Greek medical authors comes from Oribasius, doctor of Julian the Apostate, who compiled *Medical Collections* in 70 volumes in the second half of the 4th century which constituted an encyclopedia of the contemporary medical knowledge (Nutton 1984, 1-14).

By the end of antiquity, medical works began to take on a more theoretical rather than practical character. Magnus Nisibis, John of Alexandria, Andreas Agnellus of Ravenna were propagators of Galen who knew Hippocrates only through the prism of Galen's comments (Temkin 1935, 405-430). In the seventh century AD Syria, which belonged to the Byzantine Empire, became part of the Arab world and Galen became known to Syrian Christians. This led to the first translations of his works into Arabic as early as about 750 AD. As regards medieval medicine, Galen remained unknown until the 11th century AD and was introduced thanks to translations of his works into Latin from the Arabic language (Galen 1916). Is it therefore not surprising that Władysław Szumowski in *Historia medycyny* (History of Medicine), referring to medical practices in the Middle Ages, stated that: "the ability to treat diseases and the preventive measures were worse than in ancient times" (Szumowski 1994, 127)?

Conclusion

Can it be concluded on the basis of ancient texts that antiquity lay the foundations for health prevention? It is beyond doubt that the ancients sought the causes of illness. The basic identified causative factors were those beyond human control, such as natural conditions prevailing in the environment in which people lived including the influence of the climate. Vitruvius' architectural proposals confirm the dawning awareness of health threats arising from those conditions and the necessity to find ways of counteracting them. Analysis of Greek texts confirms, moreover, the knowledge of ancient Greeks about the spread and infectivity of some diseases. If there is knowledge about causes and effects, the awareness of the need to prevent and possibly eliminate hazards cannot be excluded.

Did health-related activities carried out in ancient times go beyond the offer of the Vitruvian city? The body cult was widespread in ancient Greece and its inhabitants had an almost philosophical approach to human body because they saw the importance of excellent body build and physical fitness that needed to be cultivated. Greek doctors appreciated the importance of physical exercise, which they recommended to their patients as a complementary therapy to traditional treatment (Wiśniewska and Wiciński 2014, 17). The cult of the body was not only associated with celebrating sporting events. The widely held conviction that an athletic, strong, and consequently, healthy mother will bear a healthy child forced prevention in the

form of increased activity and physical exercise for girls, at least in Sparta. Thales' definition of human happiness, which implied that health was its indispensable condition, shows the distance between the condition of health achieved by physical exercise and something that people could ask the gods to bestow on them, as Decimus Iunius Iuvenalis wrote. Perhaps the gradation of the values most cherished by the Romans and presented in the *10th Satire*, will put some light on the question why Asclepiades' proposals, which today can be defined as a healthy lifestyle, met with such disapproval and lack of understanding among his contemporaries.

It seems that, based on just a few examples of ancient sources, one could venture to say that antiquity was the cradle of early preventive health care. Perhaps, if the medical terminology in ancient times had been richer and more varied, such a statement could be formulated with even more certainty and relate to not only on one or two, but many areas of human activity at that time. Whether any effective actions were actually undertaken or whether they were limited merely to proposals, as was the case with Vitruvius, still remains an open question.

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