Reflection

Reflections on the legacies of the Middle Ages in coping with the COVID-19 pandemic*

Reflexões das heranças da Idade Média no enfrentamento da pandemia da COVID-19

Reflexiones acerca del legado de la Edad Media para afrontar la pandemia de COVID-19

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Abstract

Objective: to reflect on the legacies of the Middle Ages during the COVID-19 pandemic. Method: a reflection study on theoretical-philosophical aspects related to legacies of the Middle Ages and to the COVID-19 pandemic and was developed during an academic discipline in a graduate program in Nursing from a public university between September and December 2021. Results: humanity experienced countless changes over the centuries, resulting from several challenges that the populations had to face: wars, epidemics and even economic crises. These adversities were interconnected with cause-consequence. The health area had to advance to cope with these obstacles and allow people to resume their lives with the fewest possible impacts. Conclusion: the Middle Ages was a pioneer era in facing pandemics and left references currently used against COVID-19, such as hygiene measures, use of Personal Protective Equipment and social isolation, in addition to denial behaviors reminding us of the Dark Ages.

Descriptors: COVID-19; Pandemics; History, Medieval; Science, Technology and Society; Philosophy

Resumo

mudanças foram fruto de diversos desafios que as populações precisaram enfrentar, como guerras, epidemias, bem como crises econômicas. Tais adversidades estavam interligadas com causa-consequência. A área da saúde precisou desenvolver-se para o enfrentamento desses obstáculos e para que as pessoas pudessem retomar suas vidas com menos impactos possíveis. **Conclusão:** a idade média foi precursora no enfrentamento de pandemias, deixando referências utilizadas atualmente frente a COVID-19, como: ações de higiene, utilização de equipamentos de proteção individual e isolamento social, além de comportamentos negacionistas reportando-nos à Idade das Trevas.

**Descritores:** COVID-19; Pandemias; História Medieval; Ciência, Tecnologia e Sociedade; Filosofia

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**Introduction**

Epidemics caused by infectious and communicable diseases are present over the entire human development and leave traces that go beyond their space and time limits. This fact was confirmed by scientists who identified sequelae of the Athens plague in cadavers, before historical records of the disease were found in ancient Greece, uncovering traces of a battle whose scars still remain.¹⁻³

Pandemics are historical milestones that are generally strongly interconnected with social development and globalization. In the past, many epidemics coincided with the occurrence of wars, in which soldiers had to move across several regions, thus disseminating pathogenic agents throughout their path. In the Middle Ages, population crowding, associated with lack of appropriate sanitation and intense trade flow, favored the outbreak of the so-called Black Death in the mid-1340s, which caused thousands of deaths.¹⁻²,⁴
With globalization, intense movement of people around the world and the technological practicalities regarding means of transportation (trains and airplanes, among others) allowed for the rapid dissemination of diseases across the countries, which generates uncertainty. However, it was believed that facing a pandemic in the midst of the 21st century would be less challenging, given that so many others have already being overcome.\(^3\)\(^4\)

However, the details of how the virus act on the human organism were unknown, precluding efficient actions to prevent transmission and to effectively fight against the disease.\(^4\) Interaction between hosts and infectious agents is determined by multiple factors and conditions, including the individuals' susceptibility to contamination and their response to the infection-disease process; therefore, the COVID-19 reality became a challenge to the health area, due to its rapid dissemination and severity.\(^3\)

These factors contributed to overcrowding in health services and, with no possibility of relying on additional spaces or actions, both in terms of physical infrastructure and/or human resources, the professionals became hostages of an unknown virus and had to develop and adopt preventive measures to minimize severity of the situation. Social distancing, quarantine, use of masks and barriers in all coexistence environments were implemented in order to reduce disease spread. Consequently, there were dramatic changes in the everyday life of the entire population, as most people had never experienced a period of strict restrictions, as well as that of health professionals, who were daily exposed to the risk of infection and death.\(^2\)\(^4\)\(^5\)

The pandemic caused by COVID-19 evidenced the importance of some basic biosafety measures to control infectious and contagious diseases, such as hand washing and social distancing. Thus, health institutions promoted educational campaigns to encourage the adoption of individual and collective health practices that would contribute to reducing the number of infections and deaths.\(^5\) However, some measures exerted negative impacts on the populations' physical and mental health, especially in the most vulnerable groups, by increasing economic inequality between the different social strata, in addition to directly affecting personal ties due to social isolation.\(^4\)

These changes lead us to reflect on the context in which we are inserted and drive us to seek knowledge in other eras, when populations faced similar challenges
with fewer resources. The most significant epidemics are studied out of curiosity in universities; however, experiencing the impact of a pandemic at the present time has shown the weakness and lack of preparation of the general population to deal with it, demanding the conduction of new research studies.\textsuperscript{2} Meanwhile, it was noticed that the discoveries made throughout history are crucial to adopting immediate biosafety measures in the face of a public health threat such as the novel coronavirus.\textsuperscript{6}

Considering the aforementioned weaknesses, the history of Middle Ages proves to be relevant for the current health field, as it was the period when the first collective coping measures were implemented during dissemination of fatal diseases. The creation and adaptation of Personal Protective Equipment (PPE) and the beginning of quarantines, for example, were part of the legacy of that time, used to cope with various disease outbreaks, such as those of smallpox, Spanish flu, Human Immunodeficiency Virus (HIV) and Influenza (H1N1), among others.\textsuperscript{5-8}

After immersion into the theme during the “Philosophy of the Nursing and Health Sciences” discipline of a PhD program in Nursing from southern Brazil, it was noticed that the history of Middle Ages is present in several current contexts, both in its foundations and in the actions to prevent and combat epidemics. Thus, the diverse knowledge from that time proves to be a valuable tool to overcome the current adversities. To such end, this article intends to reflect on the legacies of the Middle Ages in the COVID-19 pandemic context.

**Method**

This study was conducted after some debates between students of an Academic PhD Program in Nursing from a Public University in southern Brazil on the theoretical and philosophical aspects of health, science and philosophy during the Middle Ages and their parallels with the COVID-19 pandemic scenario. The debates took place during the Philosophy of the Nursing and Health Sciences academic discipline, which was grounded on the ontological and epistemological bases of Science, of Nursing and of the Health disciplines; in addition to performing a historical analysis of philosophical thinking and the contribution to the Health and Nursing fields. The aforementioned academic
discipline consisted of three credits, with 11 remote meetings due to the pandemic, and was taught by two nurse professors with complementary training linked to Philosophy. The number of students was approximately 30 individuals, and the paper was conducted in groups of four or five people, who were responsible for reading, making searches and deepening on the theme chosen in order to discuss the subject matter during the meetings and, thus, promote reflections and debates with the other classmates.

**Philosophy and Science: The foundations of medieval thought**

To begin the discussion about the current legacies of the Middle Ages, it becomes necessary to understand the context of that period; the phenomena involved in people's way of thinking about the world; and how they understood health and the way they dealt with it.

The central discussion topic between Philosophy and Science at that time was related to Faith, Reason, Philosophy and Theology. It is important to bear in mind that Science was developed through Philosophy and that the contemporary dichotomy in which Faith and Science are understood as different subject matters did not exist; thus, teaching was linked to various interconnected knowledge areas. As known today, Science emerged after the Modern Era; therefore, it is important to understand the Middle Ages, the period when these changes occurred.  

With the fall of the Roman Empire, the cities had their size and importance reduced and many schools were closed. Approximately in 800 AD, Emperor Charlemagne reopened all schools, which were linked to monasteries, cathedrals or noble courts. Knowledge for a few was strengthened, always linked to the Church, and the first universities appeared in the period from 1100 to 1200 AD.

As knowledge of that time was directed to philosophical and divine issues, natural sciences had little reason to develop and were only related to the resolution of practical problems, such as appropriate time to pray, which was linked to motion of stars, and the proper time to celebrate Easter, which was determined by the mathematics of lunar and terrestrial motion.
Knowledge was reproduced through “copyists” and translators, as the original Greek writings were lost in Europe, except for a few works. Some of these writings were sent to the Arab world (Byzantine Empire, which survived the fall of the Roman Empire) and were rediscovered by Europeans after the Crusades. Therefore, at that time, translations usually contained comments from their translators.¹⁰

The philosophy of the period from the 1ˢᵗ to the 6ᵗʰ centuries (end of the Roman Empire and early Middle Ages) was called Patristic Philosophy (derived from priests/clergymen). This period was characterized by the spread of Christianity, in which apostles, and then priests, sought to conciliate principles of Greek philosophical thought with Faith by means of rational arguments, with initiation of the debates on Faith and Reason.⁹

It was at that time that Dogmas appeared, which were truths attributed to God and that were not to be questioned. One of the main thinkers of that time was Boethius (480-524 AD), a Roman aristocrat, translator and commentator of Greek works who authored revealing works about the intimate relationship between Philosophy and Theology. In turn, Saint Augustine (354-430 AD) related his studies to Plato's work, in which the Sensible World and the World of Ideas gave way to the Divine World. Therefore, Saint Augustine developed his Theory of Illumination, in which God provides us with knowledge of the Eternal Truths and illuminates Reason; thus, it is only through God that it would be possible to know the Truth, by connecting with the Divine.⁹-¹⁰,¹²

From the 9ᵗʰ to the 15ᵗʰ centuries the Church consolidated its political, economic and cultural power through moral principles and the unrestricted belief in the truths revealed by God. This period is called “Scholastic”, which means to derive from or belong to a school. In addition to that, the emergence of universities provided more support to this sociopolitical system.⁹-¹⁰,¹³ Hence, these institutions provided not only the disseminating vehicle, but also the ideas to be disseminated and that would cement the universality of Christian society, consolidating the tripod of authority formed by popes, kings or emperors, and the University. In other words, Science, the so-called studium.¹³

The main thinker of that period was Saint Thomas Aquinas (1225-1274 AD), a professor at the University of Paris who based his writings on Aristotle's Greek thought to systematize the Christian doctrine. In addition, scientific and philosophical research
could not contradict Faith, as knowledge was considered a divine revelation, that is, both human reason and religious teaching come from God and, thus, could not contradict each other.\textsuperscript{12}

In parallel to that, his works were relevant for the Church, with several of his writings linked to its foundations. The most important of his works is \textit{Summa Theologica}, as it argues the existence of God as the explanation for everything: the motion of the world, the causes of all causes successively, the perennial existence of something, the parameters of perfection. The philosopher also asserted that nature has a purpose, through which it possible to know God, because it is His creation.\textsuperscript{10}

In the late Middle Ages, after the discovery of ancient Greek writings that were in Arab possession, there was an expansion of the knowledge on Natural Philosophy, which was essential for the emergence of several thinkers of that time and of later times. After the 15\textsuperscript{th} century, there was investment in new scientific studies and thinkers, thus contributing to advances in knowledge throughout history, mainly in studies of Natural Sciences and Medicine.\textsuperscript{10-11}

\textbf{Historical and health care conceptions in pandemic times}

The relationship between Philosophy and Theology also influenced how society understood health/disease states in the Middle Ages, as the body represented a moral element within the logic of Christian salvation. From the perspective of that time, human corporeity was a consequence of the original sin and the diseases that afflicted human flesh denounced the behavioral deviations made by the sick.\textsuperscript{14} Therefore, the religious orders were responsible for taking care of the patients and help them redeem themselves, in order to achieve the miracle of cure. If they died, they were carrying with them the burden of their sins, in an act of charity that would ensure salvation of their souls and their entrance into the Kingdom of Heaven.\textsuperscript{14-15}

The way in which the population understood health states was based on a relational model of thinking, in which disease indicated a rupture between an individual and the society to which they belonged, that is, it resulted from non-compliance with the values and divine laws in force. Consequently, large-scale diseases represented massive deviations, which implied collective punishments.\textsuperscript{16}
Although miracles and prophetic visions were part of the European mythical culture, everything that was performed outside the Church's scope was considered Satanism, regardless of being a healing practice. Therefore, adopting any behavior that was not determined by the Church or by religion was considered a dishonor to Christ's teaching and would arouse the Wrath of God. Those who did so were considered *maleficus*, Devil's servants who threatened society and brought evil inside people's homes.\textsuperscript{16-18}

Based on the speculations about the corruptible strengths of society, Witch Hunts and Inquisition investigations were launched, as well as "scientific" laws and methods to determine the punishment for those who committed such crimes.\textsuperscript{17} According to some authors, the Inquisition was one of the first historical examples to characterize 'professional' healing practices and to promote interventions against 'non-professionals' who wanted to take care of the disadvantaged.\textsuperscript{4,18}

However, when the Black Death spread throughout the European continent killing thousands of people, many citizens sought protection in home recipes and herbal mixtures to prevent contamination by the disease “miasma”. These combinations were later incorporated into the clothes of plague physicians, who worked wearing leather garments soaked in lard; beaked masks with flower essences and glass eyes, the first safety “equipment” created for health care.\textsuperscript{14,19-20}

Another important measure involving biosafety adopted in the late 14\textsuperscript{th} century was punishing people who dumped excrements such as urine and feces on the streets, as these excretions were frequently tossed out of the window, contaminating the entire environment. After implementing the new regulations, there was a relative improvement in the hygiene conditions of European cities and towns, with a reduction in the proliferation of rats and other animals that contributed to the development of countless diseases.\textsuperscript{8}

It is currently known that the Black Death is transmitted from one host to another through the bite of infected fleas and that its manifestations result in enlarged and very painful lymph nodes known as buboes. In the most advanced stage of the disease, its transmission occurs through droplets of saliva, then causing the so-called Pneumonic Plague.\textsuperscript{20} However, due to lack of information and pharmacological resources at that
time, the only measures that showed to be effective in containing the disease were quarantines and social isolation.\textsuperscript{19,21}

It is interesting to point out that, currently, even with evolution and technology, it is the medieval resources that remain. It is even more curious to note that its traces are not only in the measures to fight against COVID-19 and in the protective garments of the health team, but also in the attitudes of the general population. The search for protection in religious forces and extraphysical justifications for the presence of the disease are often observed, as well as home recipes and production of handmade clothes to repel it. There are extreme acts of denial of consolidated facts; collective judgments and even violent punishments against fellow human beings, either through an act of xenophobia or because of a sneeze at the wrong time and/or place. We see blind rejection towards questioning of the status quo, to the extent that the “best” for all is a reason for inquisitions and deaths. Therefore, are the Dark Ages actually so distant?

It is a fact that the mental health state of the population has been affected due to the COVID-19 pandemic. Problems such as anxiety, depression, sleep disorders or exacerbation of other chronic pre-existing diseases significantly affected the population's quality of life.\textsuperscript{22} In addition to that, those in a situation of greater social vulnerability tend to be more susceptible to these worsening conditions.\textsuperscript{23} In this regard, it is worth noting that health professionals represent one of the most affected groups during the pandemic due to work overload, uncertainties related to the new disease, severity of the cases, death of coworkers, and fear of contracting the disease and of contaminating their family.\textsuperscript{24}

Considering knowledge evolution from the 15\textsuperscript{th} to the 19\textsuperscript{th} century, the development of scientific studies clearly shows the occurrence of the pandemic due to a virus, with enormous capacity of replication and infectivity. We are aware of its cause, not attributed to “miasmas” anymore, but uncertainties remain, for being a novel microorganism. Consequently, there were difficulties establishing measures to prevent and control the epidemic, based on economic priorities, scientific denialism, lack of political coordination and lack of appreciation of all human lives.\textsuperscript{13,16,19,21}

Organization of health institutions improved over the centuries, but political and social articulation is required for them to appropriately develop their duties and provide
dignified and safe working conditions for the professionals. In addition, several speeches are noticed on divine punishment, sacrifice and donation of health professionals in the front line within the current context. It is worth noting the relevance of overload in the health sector, as a key element in the preservation of life in the face of situations such as the COVID-19 pandemic.²⁵

There is an evident need to strengthen surveillance and to improve the countries' preparedness and response to public health emergencies, in addition to making a commitment to provide good quality and transparent information that collaborates with research studies on epidemic outbreaks.²⁵ Likewise, the importance of understanding historical and health care conceptions in pandemic times is evidenced, in order to improve the response to new occurrences.

Even with the technological advances available, we are still at the mercy of serious and unknown situations with regard to the best practices linked to coping with health problems. The scientific community and the authorities are not able to articulate actions to avoid this pandemic or minimize its dimension since, in addition to the deaths, it leaves sequelae in physical and mental health and in the social and economic fields, which are impossible for us to measure their full extent.

In this scenario, the challenge is to reorganize life in society, both individually and collectively. It can be asserted that the lessons from the past are relevant for the present and for the future. Even after centuries, certain achievements, actions and consequences are still reasserted in the present. History signals us significant changes after shocking events.

With regard to the contributions of this reflection to the area, it is worth emphasizing the importance of research studies that deepen the discussion on the impacts and similarities between the current context and the reality of the Middle Ages, in order to support the development of health strategies, either in the individual or in the collective context. In addition, considering the temporality of knowledge production in Health and Nursing, the current study may contribute to the historical record of the COVID-19 pandemic.
Conclusion

This study allowed reflecting about the legacies of the Middle Ages in the current COVID-19 pandemic context. Prominence was not only given to the emergence and improvement of Personal Protective Equipment and of the social isolation and hygiene measures and to the relevant role of universities in the construction of knowledge and in questioning scientific knowledge; but also to denialism, discourses related to divine punishment, and how epidemics directly affect the most socially and economically vulnerable populations, causing millions of lives to be lost.

It is expected that the lessons learned with the current experience may contribute to advance knowledge and to improve actions and practices to cope with future pandemics. Should a new disease of this magnitude occur, scientific evidence and previous behaviors may guide scientific discoveries about prevention, with more assertive attitudes towards management of epidemic crises.

References


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