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Pandemics and Mental Disorders: From the Thought of the 19th Century Psychiatrist Andrea Verga to long-term effects of COVID-19

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ABSTRACT

Pandemics and Mental Disorders

The COVID-19 pandemic has had and, due to its long-term effects, continues to have significant psychological consequences for many people. In this article, some of the most relevant signs of this psychological impairment are discussed, as are common reactions characterizing people's behavior in the face of fear triggered by a pandemic. All this is considered through a synoptic reading of the 1862 text entitled *Delle particolari forme di delirio cui danno origine le grandi pestilenze* [*The particular forms of delirium to which the great plagues give rise*] by the Italian psychiatrist Andrea Verga (1811-1895). Drawing on Verga's perspective, we can see clearly how human reactions to the fear of an unknown disease have been consistent over the centuries, and especially how some reactions are traceable to biological and social interactions in a syndemia perspective.

Keywords: Pandemic - COVID 19 - Mental health - Andrea Verga - History of psychiatry

Introduction

The COVID-19 pandemic has been repeatedly compared to the great plagues of the past¹, especially those which have been little discussed in recent years. For example, the Spanish Flu pandemic has some particularly interesting social parallels with the circumstances arising from COVID-19. Even less well-known is the epidemic of Lethargic Encephalitis, which overlaps somewhat with the Spanish Flu, and which had long-term effects that brought about fears in the effected populations reminiscent of our own fears regarding the long-term effects of COVID-19².

The most striking comparisons between pandemics are those suggested by the term ‘plague’ itself: from the Latin *pestis*, probably similar to *peior*, *pessimus*, ‘plague’ recalls “destruction, ruin, epidemic”. Even earlier, in ancient Greece, there existed the terrible assonance between the words ‘plague’ (λοιμός) and ‘famine’ (λιμός); Herodotus in his *Stories* relies on these two terms when he tells of the Cretans, affected by both epidemic and famine after returning to their island from Troy, where they had fought alongside the Achaeans³. Thus anciently, plague became a metaphor for evil and social destruction, so much so that in the Christian Middle Ages, it was joined with hunger and war in the invocation *A peste, fame et bello, libera nos, Domine* [From plague, hunger and war, deliver us, O Lord].

The devastation that plague and epidemic have caused and continue to cause are not limited to just the broad, socio-economic elements of society⁴, but affects above all and, perhaps most dramatically, the intimate affairs of people, forcing them to change personal habits and behaviors, often disturbing them on a psychological level. Moreover, as Fronteira et al. state, “A synergistic effect has been demonstrated [...] with socio-economic, cultural, and contextual determinants of health which seem to contribute to poorer health and accumulating social disadvantages”⁵.

Due to these many effects, COVID-19 has caused a “syndemia”, with serious, predictable, psychological sequelae^{6,7}. This neologism refers to a set of health, environmental, social and economic problems produced by the synergistic interaction of two or more communicable and non-communicable diseases characterized by heavy repercussions, in particular on disadvantaged population groups. But syndemia does not merely refer to comorbidity; syndemics “are characterized by biological and social interactions between conditions and states, interactions that increase a person’s susceptibility to harm or worsen their health outcomes”⁶.

Society is therefore faced with a calamity understood not only in terms of health, death, and economic loss, but also in socio-anthropological terms; that is, as an upheaval of community dynamics. In addition, the COVID-19 pandemic has created characteristics more particular to our time that have spread rapidly and globally⁸. This upheaval has given rise to fear, as happened also in epidemics of the past. The pandemic has shaken women and men from the depths, revealing their weaknesses, and at the same time showing the weaknesses of society, highlighting the limits of medicine,

and exposing everyone to a heavy and constant emotional burden. Information that, from day one, has emerged with extraordinary speed, especially through social media, has contributed to a harrowing anxiety, arising from the need of individuals to protect themselves from the dangers of a life-threatening, but invisible enemy. The imminent fear of death has triggered extremely strong psychophysiological responses, capable of destabilizing the individual.

A similar situation occurred during the polio epidemic in the United States between the 1930s and 1950s. Each time polio was diagnosed, a fear affected the family that bordered on terror in the face of a virus indiscriminately affecting children and adolescents, a fear that we still feel today when we consider the number of cases of this disease^{9,10}. This kind of fear “is an adaptive animal defense mechanism that is fundamental for survival and involves several biological processes of preparation for a response to potentially threatening events. [And] when it is chronic or disproportionate, it becomes harmful and can be a key component in the development of various psychiatric disorders”¹¹.

Like other pandemics, COVID-19 will continue to have a similar impact on mental health, not only individually but also collectively^{12,13,14}. For many of us, the devastation of COVID-19 can feel apocalyptic, like the beginning of the end of the world. But history suggests that, while the contagion might be new, the effects that contagion has had on us psychologically and socially follow well-established historical patterns. This paper discusses specifically those historical patterns as identified by nineteenth-century psychiatrist Andrea Verga (1811-1895), and where these patterns have arisen during the current pandemic situation.

Andrea Verga, one of the founding fathers of Italian psychiatry

Andrea Verga was born in Treviglio (Bergamo) in 1811 into a family of modest origins. At his mother’s behest, he studied in the seminary and in 1830 enrolled in the Faculty of Medicine at the University of Pavia. He was immediately impressed by the lectures of Bartolomeo Panizza (1785-1867), successor to Antonio Scarpa (1752-1832) and teacher of Nobel Prize winner Camillo Golgi (1843-1926)¹⁵.

After graduating, he became Panizza’s assistant and devoted himself together with Panizza to the study of the nervous system. In 1843, attracted by the correlations between the pathological anatomy of the brain and psychopathies, he accepted a position as assistant physician at a private asylum in Milan. In 1848, he moved to the Senavra public asylum, also in Milan. In the following years, after visiting asylums in Northern Europe, he became convinced of the absolute need to reorganize Italian asylums, to transform them into places of treatment, research, and teaching for the developing discipline of psychiatry. He then went on to direct the *Ospedale Maggiore in Milan*, where he promoted anatomic-pathological studies¹⁶. He had an organic vision of disease and used the scalpel to search for the organic causes of dementia during autopsies.

In 1865, a chair was created for him in the *Doctrine and Clinic of Mental Alienation*. In the meantime, he published numerous essays on the structure of the skull and brain, cretinism, and hallucinations. In 1862, he printed his work *Delle particolari forme di delirio cui danno origine le grandi pestilenze* [*The particular forms of delirium to which the great plagues give rise*]¹⁷.

Verga was a physician attentive to the effects of diseases on patients, but at the same time he investigated the causes of diseases in society and the effects of diseases on society itself, and in this regard he was a protagonist of a renewal of preventive and curative sanitary methods¹⁸.

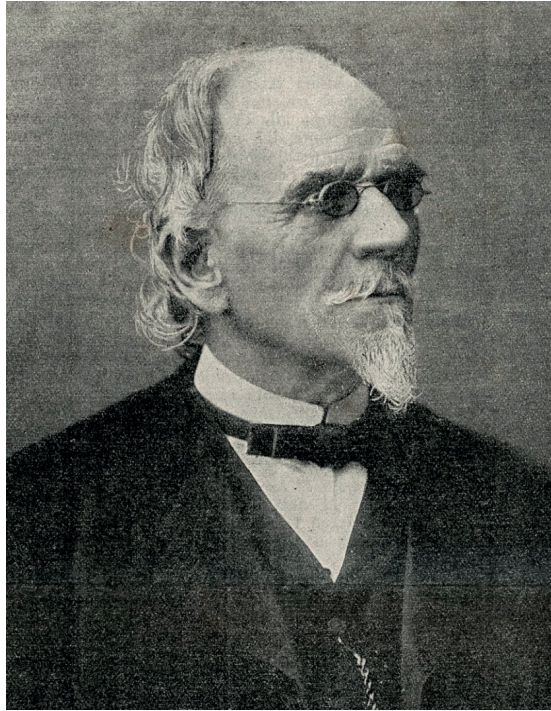


Fig. 1. Andrea Verga (public domain image)

His fame as a master of psychiatry was sanctioned with his appointment, in 1873, as president of the Italian Freniatic Society, a title he held until 1891, when he was replaced by Serafino Biffi (1822-1899) and appointed honorary president. Andrea Verga was also responsible for the classification of mental illnesses, which made it possible to standardize the statistical surveys on the pathologies present in the Italian asylums. This classification was based on symptomatology and included ‘moral insanity’ or ‘reasoning insanity’ among the forms of mental alienation. Since then, the concept of insanity has been considered as a cause of non-imputability in criminal trials. In 1878 Verga succeeded in creating the new Mombello asylum that replaced that of Senavra. He died in 1895.

Verga's relevance regarding psychological disorders arising from COVID-19

In Verga's text, published in 1862 under the title *Delle particolari forme di delirio cui danno origine le grandi pestilenze* [*The particular forms of delirium to which the great plagues give rise*], one of the several characteristics that he identifies that has also been created by our current situation is the fear alluded to above. He wrote that it is the sad privilege of humans to allow themselves to be taken by serious and lasting fear, and it is the privilege of plagues to spread fear over a large number of people. This fear contributes to the general uncertainty about one's own fate: the suspended commercial and social transactions; the forced isolation; the continuous and varied spectacle of identical facts; illness and death, and the very extraordinary nature of the measures adopted to combat them¹⁷.

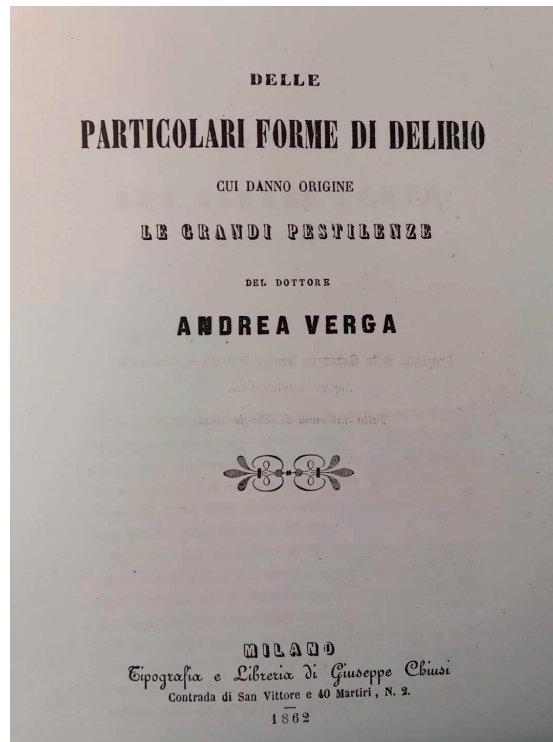


Fig. 2. Andrea Verga. *Delle particolari forme di delirio cui danno origine le grandi pestilenze*

Clearly, one must consider the socio-historical and scientific context in which Andrea Verga thought and wrote this text: a time when the origin of infectious diseases was still very mysterious.

After all, it was not until 1878 that Louis Pasteur (1822-1895) would present his germ theory¹⁹, and so Verga would have been writing of fears that came about in part because of the unknown origins of pathogens.

Though today we are familiar with the origin of pathogens generally, COVID-19 still provoked similar fears in many, fears that were, at times, extremely difficult to contain. Consequences of other devastating situations, such as terrorist attacks or natural disasters, on the psychological resilience of the population are more directly attributable to the clear origin of those events. During this present pandemic, however, the danger does not come from something we can see, nor from an Other that society has identified as a common enemy; instead it is an invisible danger that can also be found in ourselves, in our family members, in our friends, in the people we trust^{20,21}. In this way, a paradigm shift has been brought about in the perception of fear and consequently of security, clearly showing the fragility of our society and of our medical knowledge. All this has led to psychological reactions that include maladaptive behaviors, emotional stress and defensive responses, such as anxiety, fear, frustration, anger, boredom, depression, stress and domestic violence^{22,23,24,25}.

During the COVID-19 pandemic, it was also common to observe symptoms of severe psychological disturbances due to social isolation, lack of support (especially among the elderly and the families of sick people), and loneliness; these may constitute major risk factors for suicide²⁶. Moreover, the psychological and social effects of spending a long period in isolation, as required by governmental policies around the world, have proved to be highly predictive of the symptoms of acute stress disorder²⁷. Indeed, the scientific literature suggests that a number of negative psychological and emotional effects due to restrictive measures, such as quarantine, isolation and social distancing, have an impact on people's psychological well-being and on their emotional reactions to the pandemic itself^{28,29}.

Verga described the comprehensive devastation of such a situation, stating that when a deadly epidemic manifests in a place, the ignorant and the cowardly, who are the majority, are disturbed and confused. "The idea of a grave danger, of a nearing end of life, camps in their brain and becomes fixed there, preventing the regular distribution of cerebrospinal fluid to the rest of the organism; then the breath is slowed down, sleep and appetite are suppressed, and the general harmony of bodily functions remains disordered. The higher faculties of the mind fall into a kind of paralysis, whereby one is powerless to the cold and quiet examination of things, sensitivity and fantasy are exalted, waves of exaggerated sensations and perceptions, even entirely false and bizarre judgments. Objects seen through the lence of fear are enlarged, multiply, and turn to feed it"¹⁷.

Headline stress disorder

The constant exposure to newspaper reports and television coverage of the COVID-19 pandemic gave rise to what has been dubbed *Headline Stress Disorder*, a condition that can have deleterious effects on the individual³⁰. Indeed, massive media coverage of the current health emergency has impacted both directly and indirectly the behaviour of citizens and healthcare workers alike. The general public, easily influenced by

the news spread by the media^{31,32}, was for months exposed to an avalanche of information – sometimes unverified and without a scientific basis – regarding the pandemic³³. In many people, this has elicited a marked emotive response, causing additional anxiety and stress, which may result in physical symptoms such as palpitations and insomnia; moreover, this condition can even progress towards veritable physical and mental disorders³⁴.

In this regard, back in March 2020, the World Health Organization saw the need to issue the following recommendation: “Minimize watching, reading, or listening to news about COVID-19 that causes you to feel anxious or distressed; seek information only from trusted sources and mainly so that you can take practical steps to prepare your plans and protect yourself and loved ones. Seek information updates at specific times during the day, once or twice. The sudden and near-constant stream of news reports about an outbreak can cause anyone to feel worried. Get the facts, not rumours and misinformation”³⁵.

Verga anticipated such a recommendation in the second half of the 19th century, stating that severe plagues are undoubtedly among the events most likely to make an alarming impression on the masses¹⁷.

Seeking a culprit

Another factor that has markedly strained citizens’ psychological balance has been the circulation of rumours – some totally unfounded – concerning the provenance of the virus. Regarding such a phenomenon, Verga wrote that human pride has always made humans shy away both from confessing their absolute ignorance and from admitting a specific morbid trigger that, in accordance with natural laws, develops in their organism and which passes from person to person, giving rise to disease. Rather, humankind prefers to seek the causes of the various contagions outside themselves, and very often far from themselves¹⁷.

For example, during the Covid-19 pandemic several possible causes of the virus have been invoked, such as:

- *accidental escape or deliberate release of the virus from a laboratory in Wuhan;*
- *a genetic mutation induced by 5G technology;*
- *a conspiracy by the big pharmaceutical companies;*
- *the work of malevolent organisations eager to destroy humanity*³⁶.

Since the beginning of the pandemic, such conspiracy theories have spread like the virus itself.

But again, this is no novelty. Indeed, as Verga wrote that in the pagan era of mythology, almost all plagues were attributed to the anger of the gods. Then, “in less superstitious times, the plague was deemed to be a poison spread by human iniquity. While

both these errors are coarse, the latter has certainly been more disastrous for mankind than the former. In the Christian era, sacrifices and consultations of the oracles were replaced by processions, the displaying of images or relics of saints, fasting and penitence. However, as the new faith did not strike deep and solid roots, either immediately or in all men, the delirium of persecution, with the customary idea of poisoning, has cropped up here and there at almost every recurrence of epidemics³⁷.

Over the centuries, the vastness and frequency of deliria triggered by the imagined actions of so-called plague-spreaders have prompted people to hypothesise plots of various kinds to explain this evil. In the absence of a scientific explanation for an evil that exists without an apparent reason, many people have often felt the need to invent a culprit. Some claimed that the Devil had paid unscrupulous individuals to spread the plague; others believed that the plague-spreaders were implementing a political design that even involved political figures of high standing³⁷.

We see examples of this throughout history. For example, in his *Stories*, Thucydides wrote that in Athens, in 430 B.C., the plague “struck suddenly; as the people of Piraeus were infected first, the Athenians claimed that the Peloponnesians had poisoned the water cisterns”³⁸. And during the devastating plague that swept Europe in the 14th century, Jewish communities were held to be responsible for the so-called Black Death, first by the people and subsequently by the authorities. Guido (Guy) di Chauillac, Pope Clement VI’s chief physician, referring to the outbreak in Avignon in 1348, commented on the presumable cause as follows: “*In aliquibus locis crediderunt Iudaeos venenasse mundum*” [In some places they believed that the Jews had poisoned the world]¹⁷. In addition, the plague that struck the French army under Naples in 1496 was believed to be the effect of a poison. History is rife with attempts to find a culprit or a scapegoat for the epidemics that have affected humanity over the centuries. Another example is found in a reference that Alessandro Manzoni makes of scapegoats in *I Promessi sposi* [The Betrothed]³⁹.

Relying on Giuseppe Ripamonti’s *De peste quae fuit anno 1630* [The plague occurring in 1630]⁴⁰, Manzoni provides a vivid account of the attacks on “untori” (anointers), who were otherwise regular people thought to be intentionally spreading the plague: “frenzy had spread like the contagion. The traveller whom peasants met off the main road, or who was dawdling along it looking about, or who flung himself down on the ground to rest, the stranger who [was] thought to have something odd or suspicious about face or dress, were all anointers. At the first warning from anyone, even at the cry of a child, the bells would ring the alarm and people come rushing up. The unlucky wretch was pelted with stones or seized, beaten, and taken off to prison by the angry crowd... And prison up to a point was a haven of safety”³⁹.

While particularly violent, this example is a type of how, throughout the history of pandemics, scapegoats have been selected and blame has been placed on their shoulders, operating as a kind of cathexis for the rest of the population⁴¹.

What is striking is that this search for a *scapegoat*, albeit in the form of *conspiracy-related hindsight*, has again manifested itself in the setting of COVID-19; and this despite the fact that science had over a century ago developed an explanation for the spread of germs and the modalities of contagion.

Conclusion

Many studies have confirmed the enormous psychological impact the COVID-19 pandemic has had on people. Especially during the initial phase of the pandemic, many people suffered considerable psychological malaise in terms of anxiety, depression, and post-traumatic symptoms. Moreover, some groups, such as healthcare workers and COVID patients, proved particularly vulnerable^{26,42}. The results of these studies support the idea that interventions in the sphere of mental health should be formally integrated into public health programs and emergency-response plans.

Echoing a similar sentiment, Verga spoke about the importance of protecting those who are psychologically most vulnerable during a pandemic, in addition to caring for physical needs: “By illuminating and strengthening public opinion through all manner of study and practice, by inuring it against the charms of the supernatural and by casting doubt on all things that are refractory to precise demonstration, we can ensure that deliria remain isolated individual phenomena that do not spread their ferment throughout whole populations”¹⁷.

In line with this conviction, the *Centers for Disease Control and Prevention* (www.cdc.gov), the World Health Organization (www.who.int), mental health organisations and public health institutions have issued practical guidelines on how to cope with the impact of the COVID-19 pandemic on mental health, with particular regard to high-risk groups. In Italy, since the initial phases of the pandemic, the Reference Centre for Behavioural Sciences and Mental Health of the Higher Institute of Health has conducted and/or participated in studies and carried out investigations to evaluate the state of the services available to the population^{43,44,45}. Similarly, the American Psychiatric Association (www.psychiatry.org), the National Alliance on Mental Illness (nami.org) and the Substance Abuse and Mental Health Services Administration (www.samsha.gov) have provided ordinary people with general advice on how to organise their time and manage their physical and mental health.

More can still be done, however. For example, there have been calls for various countries to set up multidisciplinary mental health teams in a homogeneous systematic manner and provide clear information on the pandemic and implement services for mental health consultation through various channels, including telemedicine, with particular regard to access by vulnerable population groups, such as the elderly or psychiatric patients^{46,47}. Additionally, at the National Council of the Order of Italian Psychologists in December 2020, the psychology branch of the National Board of Scientific Societies strongly urged the government to cater to the psychological needs

of the population after so many months of pandemic. The Board asserted that “There is an evident need to systematise psychological prevention and to promote psychological well-being, counselling, support and psychotherapy through the optimal deployment of society’s resources: public health, schools, the welfare system and the world of work”⁴⁸. This need stems from the fact that there is convincing evidence of the association between the pandemic and mental disorders, though some aspects require further clarification.

“The SARS-CoV-2 has unraveled the complex dynamics between a novel, challenging health problem, co-existing, chronic and endemic ones and the capital of knowledge, competencies and practices of people all over the world and stressed its fundamental syndemic nature. As such, in this and incoming epidemics a syndemic understanding of health and disease is needed”⁵.

A study of history can often illuminate our current situation and, as this paper suggests, reading Verga is one of these instances. His work, although not very well known especially by non-Italian audiences, was already part of the historical record at the beginning of the pandemic. Knowledge of the parallels identified here in Verga’s work and the COVID-19 pandemic might have helped up anticipate the psychological and sociological consequences of this disease in its early stages. Indeed, one last observation from Verga can still help clarify what has been and what is to come: deliria, like illnesses in general, are modifications of human activity; man cannot hope to preserve himself from the former any more than from the latter¹⁷. For this reason, regarding the COVID-19 pandemic, the potential factors of risk and protection need to continue to be investigated⁴⁹. In addition, it is essential to study the long-term psychological consequences of the COVID-19 pandemic, in order to implement adequate strategies of prevention, treatment and rehabilitation in the event of the emergence of similar public health emergencies in the future⁵⁰.

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