

Research Article

PANDEMICS THEN AND NOW: A COMPARATIVE STUDY THROUGH THE EYES OF RENOWNED AUTHORS

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ABSTRACT

The whole world is reek with panic and despair throughout the past one and half year due to the rampage of Covid-19. It might seem unprecedented, but history is witness to such and more severe pandemics down the millennia. Authors and researchers have always put their heart and brain to get to the roots as well as branches of such pandemics. Their accounts reveal stunning facts and realities that can certainly aid in mitigating the current menace. The present study, done through historical and bibliographical method, attempts to focus on those literary gems and research papers that beacon towards the triumphant and optimistic way out for human civilization.

Keywords: Covid-19, Pandemic, History, Books.

INTRODUCTION

Civic life has been seriously compromised throughout this one and a half year since 2020 due to the inevitable reign of Covid-19. Such worldwide sway was almost unimaginable in twenty-first century. But Corona virus is here and unless miracles take place, it is going to strengthen its foothold for an indefinite period of time. It is, therefore, time to turn the pages of history to look up for some similar or deadlier pandemics that had wrecked havoc in human civilisation. The visionary outlook of some contemporary and yester-year authors provide for an analytical as well as remedial perspective towards these pandemics.

Objectives of the study

Pandemics such as Covid-19 baffle and scare man more than it makes them sick. When even the most advanced scientific and therapeutic technologies struggle to find a cure to a disease, man is left for nothing than to either drown in despair or hope for some miracles. The continual and unnerving genetic mutations of Corona virus have made it an obligation to fight with the tiny virus day in and day out throughout the one and a half year. Whether it is the medical professionals or the common citizens, a quick revision of history accounting and analysing the severest of pandemics through the eyes of contemporary as well as modern authors might provide some solace, clue and directions to ward off this invisible enemy. The present study has the following objectives:

- To find out about the different measures taken during the historic pandemics.
- To find out about the socio-economic conditions during the historic pandemics.
- To find out how the measures adopted during the historic pandemics comparable to the present one.

Delimitations of the study

The compulsion of home-confinement due to remedial lockdown had

left for limited scope to visit libraries and book stores. This research has been undertaken chiefly based on the books, research papers, reports and journals available though the World Wide Web.

METHODOLOGY

Historical and bibliographical study methods have been adopted. The resources for this article were mostly accessed from the internet, the WHO and UNICEF newsletters, other than various books, research papers, journals, podcasts and videos.

Finding answers to the questions

This study attempts to find answers to the objectives. How people used to deal with such occurrences of severe pandemics with so little information, knowledge and technology in the past and how these efforts are comparable or sometimes inspirational in today's scenario. The following books and research articles point out towards this revelation.

The Decameron by Giovanni Boccaccio (1351)



Fig1. La Danse Macabre (Dance of Death) by Michael Wolgemut (1493)

Way ahead of contemporary mediaeval literature, this compilation has been noted and annotated down the centuries for its sophisticated, lucid narration and dramatic style, vivid and realistic descriptions of people's lives from all strata of society and always bringing up the optimistic and witty aspects of human life in that horrific time of

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pestilence. Giovanni Boccaccio, a witness to the fourteenth century Black Death stricken Europe, authored this book around a central theme where seven noble ladies and three noble men escape the plague-infected city of Florence and spend the time at a villa Basilica di Santa Maria Novella in Fiesole for a fortnight. They spend the time there by forming a Brigata where each of them telling one story every day for ten days, thus contributing to a compilation of a hundred stories – the Decameron. The following figure depicts the painting of Black Death by Wolgemut.

A Journal of the Plague Year by Daniel Defoe (1722)

Written about fifty years after the notorious plague ravaged Europe and England, the author presents a vivid description of the time and the lives of the inhabitants. This journal is written as an eye witness account of a character named H.F. roaming the streets of London during the Bubonic Plague had hit it. The fact that Daniel Defoe was only five years old when the dreaded Bubonic Plague had hit London, his home town, in 1665, points to the speculation that “A Journal of the Plague Year” (1722) was not a collective of solely his own experiences. The central character, the bachelor saddler H.F., who we get to know of only from his signature at the end of the journal, raises the possibility that it was actually Henry Foe, the author’s uncle, who had survived the Great Plague of London.

Rotting Face: Smallpox and the American Indian by R.G. Robertson (2001)

Small Pox had caused severe pandemic in sixteenth century in chiefly the native American States of Northern plains, Mexico, Peru and Easter Islands. This was an exotic disease to the Native Americans brought onshore by the Spanish conquistadors from old world Europe. This dreaded disease had claimed more lives than the war between the invaders and inhabitants had done. A Vietnam war veteran, R.G. Robertson has experienced the woes of forced invasion and laced his vivid description with that sensitivity of how the American Indians had almost faced extinction due to the dreading Small Pox infection during the 1837-1838. In the spring of 1837, an American fur company steamboat, the S.S. St. Peter, had docked on the Missouri river which was the native place of Mandans, Hidatsas, Blackfeet, Arikaras, Assiniboins and other tribes. One of the crew was already infected and soon it spread to three Arikara women, from whom the disease spread like forest fire among others. Fig2 projects the painting by an Aztec artist.



Fig2. 16th Century Small Pox by an indigenous Aztec artist

America’s Forgotten Pandemic: The Influenza of 1918 by Alfred W. Crosby (2003)

Originally titled Epidemic and Peace: 1918 that was published in 1976, this book is noted to be among the best and most credible and vivid anecdotes of the severe pandemic named Spanish Flu that is being counted among one of the severest pandemics down the history. Despite the success in genetic mapping of the 1918 Spanish Flu virus, the cause of its severity and what made the regular

seasonal disease so destructive is still unknown. An emeritus professor of History, Geography and American Studies in the University of Texas, Alfred W. Crosby has reminded us of a similar pandemic merely a hundred years back – the Spanish Flu of 1918 that had claimed millions of lives across the world in this very-timely book. Fig3 and Fig4 depict advertisements in a newspaper and of Lifebuoy soap during Spanish Flu respectively.

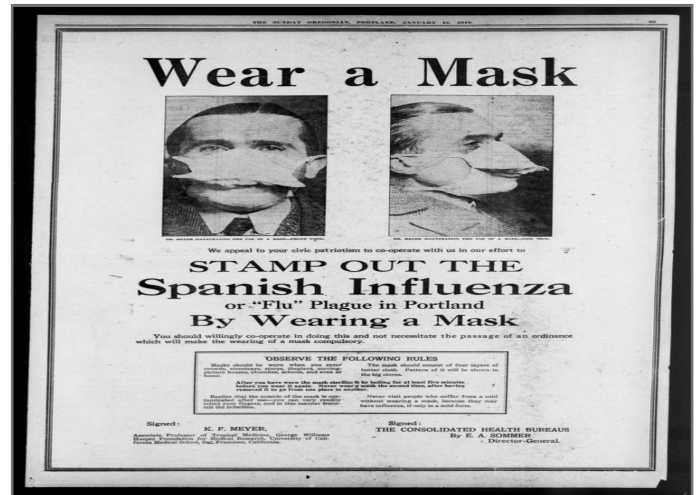


Fig 3. “The Sunday Oregonian” newspaper in Portland, 1919 asking citizens to wear masks



Fig4. An advertisement of Lifebuoy soap during Spanish Flu (1918)

And the Band Played On: Politics, People, and the AIDS Epidemic by Randy Shilts (1987)

The author has portrayed the evolution of AIDS after it was first encountered in 1981. A journalist of “San Francisco Chronicle”, the author has undergone investigative journalism to write the book often in more of a personal tone instead of in a narrative style. The possibility of its taking any bigger shape to earn the label of pandemic took too much time to be even recognised. It was as if allowed to spread notwithstanding its damage-causing capacity in the larger section of the society. Everyone from the politicians to even the doctors and scientists were in the “denialism” mode to take it seriously. As the name itself suggests, this book is about persistence, the continuance that should not be there, for there was the need for a change, for an intervention.

Spillover: Animal Infections and the Next Human Pandemic by David Quammen (2012)

In his adventures and explorations through the markets of wild animals in China, rainforests of Congo or in domestic pet markets in Bangladesh, the author has portrayed a first-hand account of his experiences out of his curiosity by the epidemiology of Ebola pandemic and had accompanied scientists in explorations to get to the root of this disease. In the early days of Covid-19 outbreak, the ruthless stories and videos of the wild animal market in Wuhan province of China had been circulating. Gradually the news of its association to be the source of Corona virus got spread. Speculations and theories started filling the pages of newspapers and social media platforms as whether the spill of Corona virus from Wuhan laboratory was an accident or a deliberate attempt. It can be certainly commented that Wuhan was not the first, nor was the only one of its kind. This 21st century has witnessed an array of epidemics and last but not the least, Covid-19 - all of which find their roots in zoonotic transmission.

The Hot Zone: The Terrifying True Story of the Origins of the Ebola Virus by Richard Preston (1994)

Nature too sometimes imposes taboos or restrictions that if broken, can cause irrevocable disasters. So is the divide between the wild and the domestic. Man has isolated himself from nature long back both in habitual and behavioural terms. The self-imposed isolation has taken man too far away from nature to bridge the gap in any near future. The book has four sections – "The Shadow of Mount Elgon" narrates the story of Charles Monet, a French nature enthusiast and first reported victim of Ebola, "The Monkey House" narrates the stories of Reston, Virginia, where 29 lab green monkeys were found dead at a monkey quarantine facility and the rest were slaughtered, "Smashdown" narrates about a virulent kin of Ebola virus and "Kitum Cave", where Preston sets on for a journey.

COVID-19 Corona Crisis: (Health Hygiene and Development) Paperback by Chandan Sengupta (12 March 2020)

As the author puts it, it is nothing novel about a virus to know how it kills, what matters is how to kill it. This book attempts to raise questions regarding the thought process of the entire socio-political set up, the economic policy makers and the public health workers. Who is doing what and why and how they are doing so – is the theme that this book revolves around. Adding significant input to the present study this book is a must mention in the current times.

The Coronavirus: What you Need to Know about the Global Pandemic by authors Dr. Rajesh Parikh, Dr. Swapneil Parikh and Clinical Psychologist Maherra Desai (2020)

Neurosurgeon Dr. Rajesh Parikh has joined hands with Dr. Swapneil Parikh and Clinical Psychologist Maherra Desai to come off with this book to raise awareness on the pandemic Covid-19. With increasing tendency to achieve materialistic accomplishments in all walks of current life, there has been a decreasing sense of mutual trust and respect between patients and doctors. In our country, only the fortunate few can get admission in the public hospitals and the affluent few can enter the private nursing homes, the rests are left in the hands of their own destiny. In such a milieu, arrival of Covid-19 stirred the picture at both ends. Patients on one hand, have no other way than to rely on the doctors to cope with a new and hitherto unknown disease, on the other, the doctors are at their wits' end about how to treat the novel Corona virus disease.

Corona virus Disease 2019 (COVID-19) Epidemiology, Pathogenesis, Diagnosis, and Therapeutics Editors: Shailendra K. Saxena, (Ed.) (2020)

The author has gone into much depth and length of the biological and medical attributes of the current dreaded Covid-19. The book is a harbinger of hope showing effective ways to the global and local policy makers to devise health strategies and to minimise or halt the exasperating Covid-19 from causing more loss. From the expert to the experts, this book is a researcher's and expert's insight into the what, when, how and why of Covid-19. Shailendra K. Saxena is Vice Dean and Professor of King George's Medical University, Lucknow.

Origin and evolution of the 1918 "Spanish" influenza virus hemagglutinin gene: Ann H. Reid, Thomas G. Fanning, Johan V. Hultin, and Jeffery K. Taubenberger (PNAS February 16, 1999 96 (4) 1651-1656; <https://doi.org/10.1073/pnas.96.4.1651>)

This research article elucidates the detailed procedure of how genetic mapping of the avian influenza virus responsible for the notorious Spanish Flu in 1918-1919 was done. The researcher team had analysed and decoded the RNA from the "formalin-fixed, paraffin-embedded lung tissue sample" of the victims. Often, scientific researches outcompete adventures and expeditions in their excitement and thrill quotient. The account of isolation and examination of the Hemagglutinin (HA) gene of the virus causing the infamous Spanish Flu is one such example.

The SARS, MERS and Novel Coronavirus (COVID-19) Epidemics, the Newest and Biggest Global Health Threats: What Lessons Have We Learned? (2020) by Noah C Peeri et al

This study raises the most pertinent and perhaps disturbing questions in the wake of Covid-19 outbreak. They point out the lenient containment and treatment policies of the Chinese government, the controversial live animal market of Wuhan province in China that let loose this virus at first and the inadequate measures taken by global leaders to restrict intercontinental and cross-country transits. With the very onset of the current century, successive waves of a good number of epidemics have startled human race. And here we are, challenged and locked down by the novel Corona virus in 2020. The researchers have expressed their regret that man has still not learned from previous pandemic experiences and thus could not manage Covid-19 in the first place.

Table 1: Diagrammatic Representation of World's Worst Pandemics

Name of Pandemic	Year	Place
Prehistoric Epidemic	Circa 5000 BC	Hamin Mangha and Miaozigou, China
Plague of Athens (Suspected Typhoid)	430 BC	Athens, Egypt, Libya, Ethiopia
Antonine Plague (Suspected Small Pox)	165 - 180 AD	Huns, Germans, Roman empire
Plague of Cyprian	250 - 271 AD	Ethiopia, Northern Africa, Rome, Egypt
Plague of Justinian (Bubonic Plague)	541 - 542 AD	Egypt, Palestine, Byzantine Empire, Mediterranean
Black Death (Bubonic Plague)	1346 - 1353 AD	Asia and Europe

American Plague (Small Pox, Measles, Bubonic Plague)	1492 AD	Caribbean, Hispaniola, Aztecs	Mexico,
Great Plague of London	1665 - 1666 AD	London	
First (of seven) Cholera Pandemic	1817 AD	Russia, Spain, Africa, China, India, America, Japan, Italy	
Third Plague Pandemic	1855 AD	China, India, Hong Kong	
Spanish Flu	1918 - 1920 AD	Europe, Asia, America	
Asian Flu	1957 AD	Hong Kong, China, US, UK	
AIDS	1981 - present	West Africa, US, world	
SARS	2002 - 2003	China, Singapore, UK, US	
H1N1 Swine Flu	2009 - 2010	Mexico, US, Europe, Asia, Africa	
Zika Virus Disease	2007 - 2015	Africa, Asia, US, Pacific	
Ebola	2007 - 2016	Democratic Republic of Congo, Uganda, Liberia	
MERS	2012 - present	Middle East, Africa, South Asia	
Covid-19	2019 - present	From Hubei, China to whole world	

- It brought about a drastic and wide scale social and political change in most Native American countries and islands during 1837-1838.
- Initially, the white government at the United States was not much attentive to the vaccination needs of the aboriginals, but eventually yielded to the fur-traders' appeal who were more willing to keep their fur-suppliers alive than to actually do something good for them.
- The inadvertent vaccination had also claimed some more lives.

America's Forgotten Pandemic: The Influenza of 1918

The author takes the readers through the following facts,

- Reportedly claimed about 25 million lives only from America, around 50 million or more lives from the United Kingdom and France, Germany, China and Japan, amounting to almost one third of the world's population between 1918 and 1920.
- The severity of the lethal Influenza of 1918-1919 that had expressed an antigenic drift and genetic shifts much like what the current Corona virus is showing.
- America, including the whole world, was trying to recuperate from the four-year old trauma of the World War I and the Spanish influenza sneaked into the United States with the returning army.
- Its multiplicity in Spain had perhaps given rise to the name "Spanish Influenza".

And the Band Played on: Politics, People, and the AIDS Epidemic

Gloomy facts are revealed like,

- A victim himself of the silent epidemic.
- The disease was first communalised by discriminating it as a "gay disease" since it was first prevalent in America's gay community.
- The band of denialism and apathy got played on by the government, medical practitioners, scientists, media and the community when the silent epidemic had hit the United States in the 1980's.
- United States had to pay back for this indifference through millions of lives.

Spill over: Animal Infections and the Next Human Pandemic

It has been found from the book that,

- Spill over of microbes and pathogens is taking place that were inhabited by certain wild animals like fruit bats, porcupines, gorillas, chimpanzees and monkeys and were hitherto incapable of attacking humans.
- Due to the lackadaisical proximity to exotic animals in lieu of large scale deforestation and subsequent loss of animal habitation leading to ecological imbalance, dodgy inclusion of wild animals into experimental cuisines and audacious leisure pursuit of petting wild animals have brought down the barrier and have seriously exposed human to animal diseases.
- The severe pandemics like AIDS, SARS and Ebola have prompted the author to warn about the "next big one", which can unfaillingly be seen now in form of Covid-19.
- In addition to China, Thailand, Myanmar, Bangkok and markets in some African regions have been reported to sell wild animals, commonly misquoted as "wet markets".

RESULTS AND DISCUSSIONS

From the historical and bibliographical study, sufficient insight has been found regarding the notable pandemics down the ages. The findings from the study elaborate on the objectives specified earlier as follows.

The Decameron

The author takes us through the following findings,

- A horrid description of the symptoms of bubonic plague.
- The mishaps that concluded happily.
- Corruption of the Catholic Church clergies.
- Escape from embarrassment or misfortune with the help of ready wit.

A Journal of the Plague Years

The Journal represents,

- Horrific details of the lives or rather deaths of the citizens.
- Different strategies undertaken to evade the clasp of the macabre disease.
- The hit or miss treatment procedures in the absence of scientific knowledge.
- The restlessness and psychological morbidity observed among the citizens.

Rotting Face: Smallpox and the American Indian

The book reveals that,

Hot Zone: The Hot Zone: The Terrifying True Story of the Origins of the Ebola Virus

This book leads us through,

- To trace the root of the origin of the deadly Ebola virus disease causing haemorrhagic fever that had originated in tropical, Central and West Africa.
- The speed of its spread and severe, gruesome lethality could be compared to another deadly pandemic, the Black Death and this is the cause that it has been termed the “hot” virus.
- The nonchalant order of then President of Zaire to shoot down any villager that attempted to escape their sealed area.
- No escape from the ghastly agent of death abandoning one’s infected loved ones prompted the author to write “In order to win this war against an inhuman enemy, people had to make themselves inhuman.”

COVID- 19 Corona Crisis: (Health Hygiene and Development)

The focus is on the following,

- With contradictory and confusing news about the genetics and epidemiology of Corona Virus from across the world, it is worthwhile thinking about the mitigation strategies and their proper implementation.
- Even the World Health Organisation was no exception to be beguiled like this.
- Laboratories all around the world, whether renowned or commonplace, made desperate and often capricious claims in order to remain in the limelight.

The Coronavirus: What you Need to Know about the Global Pandemic

This book circles around,

- An effort to hold up the pictures of the overall health sector of India, its nook and corners and loopholes.
- Attempts to show the way to fix the fundamental shortcomings of Indian health service so that the basic health needs of citizens from all walks of life are taken care of much before another pandemic like Covid-19 strikes.
- The contribution of English Scientist David Tyrrell (explained the etymology of Corona virus during 1964-1966), Hungarian obstetrician Ignaz Semmelweis, (recommended about the importance of hand-washing) and Dr. Li Wenliang (the first ever Chinese to proclaim that Wuhan disease was a new form of Covid).

Coronavirus Disease 2019 (COVID-19) Epidemiology, Pathogenesis, Diagnosis, and Therapeutics

The author,

- Has put into all the details regarding the genomic configuration, epidemiology, host-pathogen interaction, host-defence mechanism of Covid-19 in a very comprehensive way to help fight the disease.
- Hopes that the book would come handy to scientists, doctors, researchers and global policy makers as an informative resource regarding the pathobiology of Covid-19 and its effective treatment and containment.

Origin and evolution of the 1918 “Spanish” influenza virus Hemagglutinin gene

The article reveals following facts,

- Hemagglutinin (HA) gene of the Spanish Flu causing virus H1N1 or Swine Flu virus reportedly produces a membrane protein that helps the virus to anchor itself to the host cell.
- This protein also acts as a beacon to the host immune system which soon after identifying the invader jumps into action.
- The five among the ten genes of the Influenza virus showed similarity much with human than with avian strain due to such mutation and consequently was identified as an H1N1 subtype that recurred in 2009 as Swine Flu.
- Originating in birds, the virus invaded human and its RNA underwent mutation to evolve into a human-specific strain.

The SARS, MERS and Novel Coronavirus (COVID-19) Epidemics, the Newest and Biggest Global Health Threats: What Lessons Have We Learned?

The researchers put an effort to,

- Trace the roots of the three severe Corona Virus diseases of 21st century, viz. SARS (Severe Acute Respiratory Syndrome), MERS (Middle East Respiratory Syndrome) and Covid-19 and analyses the common underlying factors that led to back to back pandemics caused by these three influenza like viri.
- This similarity implies that we were being warned by these waves of flu for the past two decades and the scientists and researchers were foretelling about the possible arrival of a “big one” in near future. But little did the policy makers and world leaders heed to those warnings.

CONCLUSIONS

The challenges and bewilderment Covid-19 has brought everyone face to face with, no getaway has yet been found out from that. Amidst such a scenario, the present study has attempted to put forward some literary and research publications from both past and present. These books and research papers help shed light on some unheard of or less prioritized areas about pandemics in general and Covid-19 especially, that might open some closed door towards a safe and normalized life as was during pre-Covid days.

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