Chapter 1

Introduction

Damir Huremović

Catastrophic pandemics have been occurring at regular intervals throughout human history, with the last one (Spanish flu pandemic of 1918) taking place a century ago, just before the advent of modern psychiatry as a science and a clinical specialty. As a consequence, contemporary psychiatry had little opportunity to seriously consider such historically important phenomena through its clinical, scientific lens. At least in part, an explanation for this may lie in the distribution of pathologies and resources – with an exception of HIV epidemic and seasonal flu pandemics, infectious disease outbreaks, and their burden remains limited to developing countries, tying up their national and international (where available) health-care resources. Developed countries, on the other hand, have managed to significantly ameliorate the burden of infectious diseases and minimize possibilities of an outbreak through improvements in standard of living, general precautions, and immunization. With communicable diseases not among the

D. Huremović (✉)

North Shore University Hospital, Manhasset, NY, USA

e-mail: dhuremov@northwell.edu

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first five causes of death in the developed world [1], it is understandable that research interest in infectious diseases and, particularly, in pandemic outbreaks, remains marginal within all specialties not directly involved in combating communicable diseases.

Some recent events, however, including outbreaks of Zika virus and MERS and, prior to that, outbreaks of Ebola hemorrhagic fever and SARS, have managed to draw global attention to a possibility of a real pandemic in the twenty-first century, stirring up anxiety and uneasiness in societies, developed and developing alike, across the globe. Despite advances in healthcare technologies, therapeutics, and international surveillance efforts, a catastrophic outbreak of pandemic proportions remains a faint, but distinct possibility [2]. Human impact on global biosphere, population growth, expansion of international travel and trade, armed conflicts, misuse of antimicrobial agents, and changes in attitudes toward immunization, all increase the odds of such an outbreak occurring spontaneously. In a more sinister scenario, sadly, a pandemic outbreak can be intentionally instigated by state or non-state actors through acts of deliberately orchestrated biological warfare and bioterrorism [3]. In order to be able to adequately respond to such global health challenges, the international public health community seeks to identify infectious diseases that can pose a public health risk because of their epidemic potential and for which there are no countermeasures or they remain woefully insufficient (“Disease X,” per WHO terminology) [4]. Participation of mental health experts in projects devoted to preparing for a pandemic outbreak remains negligible or very limited [5].

Approaches to mental health and psychiatric care in such outbreaks remain poorly understood [6], outlined, or covered by existing interests, research, and literature within psychiatry as a discipline. Moreover, it is unclear what part of psychiatry could and should “claim” such infectious outbreaks as its legitimate study subject; two subspecialties within psychiatry could stake such claim, but neither fully does.

One such subspecialty of psychiatry – Consultation Liaison psychiatry (CLP) – addresses the interface between mental

health and other medical specialties, including infectious diseases. Most mental health resources and research dedicated to the area of infectious diseases within CLP are, however, largely focused on infections that endemically impose steady and significant public health burden on societies (e.g., HIV, Hepatitis C, or TB). With their steady and predictable epidemiology, such diseases allow for studious and systematic approach which has been utilized over the past decades. This includes neuropsychiatric sequelae, emotional burden, social stigma, and impact on communities. Within this branch, unfortunately, there is virtually no substantial knowledge, focus, or interest in rapidly spreading outbreaks of infectious diseases that leave little time to studiously and fully comprehend mental health aspects of such illnesses, with potentially devastating social impact, both during the outbreaks and in their aftermath.

In those instances, another subspecialty of psychiatry – disaster psychiatry – lends itself as a primary discipline to outline mental health responses that are, by default, undertaken as emergency mental health responses to a disaster. While the general approach of disaster psychiatry is applicable to organizing and providing emergency mental health response to epidemic outbreaks, there is little focus within disaster psychiatry on infectious diseases alone. While this general approach to mental health in a disaster can also be used in cases of infectious diseases outbreaks, there are several crucial idiosyncrasies in pandemic mental health that make it stand out and make it worth a more serious consideration in literature and research.

Unique features of mental health responses in pandemic outbreaks include the following:

- Time lapse and disease modeling – Pandemic outbreaks, unlike most disasters, have predictable epidemiological models that allow limited, but valuable, time for prognostication, planning, and preparation as the pandemic approaches and progresses.
- Mental health burden on health workers – Health workers in pandemic outbreaks are both at increased risk for

infection and psychological trauma while caring for infected patients, with rates of PTSD among healthcare personnel in such situations reaching 20 percent, as was the case during the 2003 SARS outbreak [7].

- Quarantine - For centuries, a routinely practiced method of infection control, quarantine and, overall, social distancing have received surprisingly little attention in psychiatric literature so far. Prolonged isolation and separation from families and their community can nevertheless have profound effects on individuals even if they are merely isolated and not directly affected by the disease. Similar effects can be observed in healthcare workers placed in isolation. Quarantine and isolation warrant special mental health attention in any infectious disease outbreak.
- Neuropsychiatric sequelae among survivors – Neuropsychiatric sequelae of surviving an infectious illness, its complications, and complications associated with treatment may warrant sustained mental health focus and attention. This set of sequelae may require an expansion in resources and expertise from more trauma-focused to include neuropsychiatric aspects of care in order to prevent and minimize long-term disabilities.
- Behavioral contagion and emotional epidemiology – Managing concerns, fears, and misconceptions at the local community and broader public level become as important as treating individual patients. Mental health providers may find themselves participating in public mental health activities, helping to formulate responses to alleviate public anxiety and concerns; basic understanding of *emotional epidemiology* can be helpful in such situations [8].
- Precarious status of healthcare facilities and healthcare workers – In the midst of a pandemic outbreak and unlike in other disasters, healthcare facilities may transform from points of care to nodes of transmission, further jeopardizing public trust in the healthcare system and its ability to respond to the outbreak. Understanding, for example, the emotional burden on healthcare workers, exposed to disease and separated from families, or challenges surrounding immunization hesitancy in a particular community may

help mental health providers play an instrumental role on a multidisciplinary public health team deliberating a reasonable, yet meaningful, mental health response to an impending potential disaster.

This book examines some of the unique elements of pandemic outbreaks to be considered when formulating a mental health response and explores additional modalities of supplementing and strengthening that response in case of such an outbreak. In addition to focusing on clinical aspects of this issue and associated treatment strategies in addressing it, this text also outlines some public health aspects of planning for mental health responses at various levels (hospital and community), including vaccine hesitancy.

Our daring vision for this book is for it to be an impetus to generating international research and policy interest that would result in steady, serious, and sustained efforts dedicated to understanding this topic. In the interim, we hope that it will serve as a useful starting resource to providers establishing and organizing mental health response in communities afflicted by epidemic or pandemic outbreaks.

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