

Review of the impact of epidemics on mental and developmental health in parents and children

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Abstract - The CDC defines an epidemic as a sudden and unexpected increase in the number of disease cases in a specific geographic area. Epidemics include diseases like smallpox, measles, and polio, to name just a few. This doesn't mean that an epidemic illness has to be communicable. The outbreaks of West Nile fever and obesity are also referred to as epidemics. If a disease or particular health-related activity (e.g., smoking) is clearly above the anticipated prevalence in a community or area, it may be considered an epidemic. In this paper discuss the impact of epidemics on mental and developmental health in parents and children.

Keywords - Diseases, health, children, mental, parent, impact, epidemic

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INTRODUCTION

Infectious illness outbreaks may be triggered by a variety of circumstances, including a shift in the ecology of a population, the introduction of a new pathogen, or a mutation in the pathogen reservoir's genetic makeup.

In general, epidemics are concerned with the spread of infectious diseases and their patterns of transmission. When host immunity to an existing disease or a newly developing novel pathogen drops below the level observed in when the balance between the endemic and the transmission is upset, an epidemic may break out. [1]

As an example, a rate of 15 occurrences per 100,000 persons for two consecutive weeks is considered an epidemic in meningococcal infections.

The word "pandemic" may be used to describe an epidemic that has extended beyond a single country's borders or even across continents, but only if it affects or threatens a large enough population to be considered widespread. It is necessary to know the baseline incidence rate of a disease before epidemics can be registered and announced; for example, influenza epidemics are defined as a rise in incidence beyond this baseline. Many occurrences of a common sickness (like the common cold) would not be

considered epidemics because of the rarity of the condition. Besides harming people's health and causing deaths, an epidemic may have devastating financial and economic consequences. [2]

Epidemics were widely investigated in medicine in the 19th century. It is possible to trace the study of epidemics back to the late 18th century.

Hippocrates was the first ancient Greek or Roman philosopher to observe that certain illnesses had an epidemic nature (he wrote on pestilence). When Hippocrates wrote about the Peloponnesian Wars around the period of Hippocrates's use of the word epidemic for sickness that spreads with weather and wind and air, Thucydides was the first to use or allude to that phrase. [3]

Homer's Odyssey is credited with coining the term epidemic, which was subsequently used by epidemiologists and epidemologists for the Epidemics, a medical treatise written by Hippocrates.

"Indigenous" and "endemic" have the same connotations now as they had in Hippocrates' day.

A sickness epidemic is described in Thucydides' narrative of the Plague of Athens as one of the first documented records of the precise phrase. In the early 17th century, the phrases "endemic" and

"epidemic" were used to describe two different types of population-level sickness, the endemic occurring at a low frequency and the epidemic occurring at a high frequency. Emotionally charged terms like "epidemic" have become commonplace.

As defined by the Centers for Disease Control and Prevention: "over-diagnosis or under-diagnosis in a particular region or group of people over a specified time period is known as epidemics. In most circumstances, the cases are assumed to be connected in some manner or to have a similar cause (see also epidemic)." Epidemic and outbreak are two words that are often used interchangeably. This phrase should only be used for minor incidents, say researchers Manfred S. Green and colleagues. This difference is recognized by Chambers Concise Dictionary and Stedman's Medical Dictionary.

CAUSES

An infectious agent may undergo a variety of alterations that might lead to an epidemic.[4] These include:

- Increased virulence
- Introduction into a novel setting
- Increased vulnerability of the infected individual

Examples of "pandemic sickness" include West Nile fever and the obesity epidemic, as cited by the World Health Organization (WHO).

Infected food sources, such as polluted water, and the movement of populations of specific animals, such as rats or mosquitoes, that may function as disease vectors, are all factors that influence the spread of epidemics.

Certain infectious pathogens' seasonality may be a factor in epidemics. Any of the eight essential aspects of the system may be affected by seasonality:

- (1) Reproduction is a viable method of attracting recruits.
- (2) Transmission
- (3) Immunity and recuperation have been gained.
- (4) Waning immunity
- (5) Natural mortality
- (6) Symptomatology and pathology

(7) Disease-induced mortality

(8) Cross-species transmission

When it comes to upper respiratory tract illnesses like the common cold and a sore throat, winter is the peak season. The intensity of subsequent epidemics peaks and declines over intervals of five or ten years, both in terms of the number of individuals infected and the number of people who die. [5]

TYPES

Common source outbreak

A common agent has been introduced to all of the victims in a single source pandemic. In a point-source epidemic, all of the infected persons are exposed and incubated at the same place at the same time. A continuous epidemic or an intermittent outbreak, depending on whether the exposure was constant or fluctuating, might be labeled as such. [6]

Propagated outbreak

Person-to-person transmission of a disease is common in an epidemic. Individuals who have been exposed to the disease may go on to become reservoirs for further exposures.

In many cases, epidemics will have features of both common source and spread outbreaks (sometimes referred to as mixed outbreak).

A zoonotic disease agent may be transferred through an environmental vector or secondary person-to-person dissemination following exposure to a common source. [7]

MENTAL HEALTH

World Health Organization (WHO) defines mental health as a state of well-being in which a person develops his or her potential, copes with the normal demands of life, works productively, and contributes to the community. Mental well-being, according to Dr. Brock Chisholm, cannot exist in isolation from physical well-being. [8]

The Global Burden of Diseases, Injuries, and Risk Factors Study 2017 found that 792 million individuals have mental illnesses. A person's mental health is influenced by a variety of factors, including social, psychological, and biological factors. In addition, the World Health Organization (WHO) reports that poor mental health is connected to quick social change, stressful work conditions, gender discrimination, social isolation, unhealthy lifestyles and human rights violations (2018). Psychological and personality traits make people more vulnerable to

mental illness. Biological hazards include, but are not limited to, those based on a person's genes. Depression is the most often reported mental illness.

Sighing, a lack of interest or pleasure, feelings of guilt or poor self-worth, interrupted sleep or meals, fatigue, and reduced focus are all symptoms of depressive disorder, which persist at least two weeks. Also, for those who suffer from an anxiety disorder, common symptoms include restlessness, an unsatisfying sense of being constantly on edge, a lack of concentration, an inability to focus or a blank mind, irritability, muscle tension, and sleep disturbances (including difficulty falling or staying asleep as well as a restless, unsatisfying sleep). One in seven (14 percent) of all 10 to 19-year-olds in the world is thought to suffer from some kind of mental illness.

IMPACTS

- For example, pandemics may lead to a considerable and widespread rise in morbidity and death and have a disproportionately greater mortality effect on LMICs.
- It is possible that pandemics are only responsible for short-term budgetary shocks and long-term detrimental effects on economic growth.
- During pandemics, economic development is negatively affected by changes in individual behavior such as aversion to workplaces and other public meeting places generated by fear.
- Preparing for a pandemic may have huge social and economic impacts.
- Historical tensions may be exacerbated by pandemics in nations with weak institutions and political legacies of instability. Violence and hostility have been ignited between governments and people as a result of epidemic response tactics like quarantines in these situations.

Health Impacts

Pandemics may have a devastating effect on human health. About 30–50% of Europe's population perished in the Black Death epidemic. There were 35 million HIV/AIDS fatalities in the 1980s. Ebola, which killed 10,600 people across Guinea, Sierra Leone, and Liberia in 2014, is now the leading cause of death in those same countries. Pandemics disproportionately impact the youthful and economically engaged population. Because of their reduced immunity, younger individuals are more likely to get ill and die as a result of illnesses. As a result, the pandemic has a considerable influence on the number of years of life lost. [9]

It's also important to note that many infectious illnesses have long-term repercussions, which may be much more severe in pandemics. Patients' health is harmed for the rest of their lives by Zika virus medicine, for example. Depleted resources for normal healthcare, lower children vaccination rates, and a lack of access to treatment owing to the inability to travel are all indirect consequences of pandemics on health. Stroke and heart attack fatalities increased during the 2009 influenza pandemic owing to an increase in hospitalizations from influenza and pneumonia. So it's hard to tell whether a death is caused by the pandemic or by some other sickness that happened to strike at the same time. Because they have to care for family members or children who are sick, healthcare personnel may be more open to the spread of the illness.

Economic Impacts

Pandemics have both a short-term and long-term influence on the economies of countries throughout the globe. Quarantine, health facility preparation, isolation of infectious patients, and contact tracing are all part of the fight against the pandemic, which involves public health resources, human resources, and implementation costs. Providing health facilities for infectious patients and arranging consumables such as medications, medical supplies, and personal protective equipment are also part of the health system's costs. [10]

When tax revenues decrease and expenditures rise as a consequence of a pandemic, it may lead to a rise in fiscal stress, particularly in lower-middle-income countries (LMICs). Because of the government's inability to earn income owing to quarantine and curfews, the Ebola virus had a severe economic effect on Liberia, as seen by the surge in public health expenditures, economic deterioration, and revenue declines. Because of the lack of workers, the increased death rate, and the fear-induced behavior that occurs during pandemics, economic shocks are widespread. The pandemic's economic downturn is exacerbated by other factors, including labor shortages, transportation disruptions, job closures, restrictions on commerce and travel, and a blocked land border.

Social and Political Impacts

The social and political ramifications of a pandemic are extensive, including conflict between states, population relocation, and increasing social tension and prejudice. Many pre-modern pandemics were responsible for significant population changes, morality shocks, and social and political upheaval. Pandemics have been shown to exacerbate political tensions and instability, particularly in countries with weak democratic systems, according to studies. Because of the public's perception of the government's security personnel as part of a scheme to spread the illness, the 2014 Ebola virus caused

political and social upheaval in the state. Health care workers were threatened and facilities and supplies were damaged by the rioting and violence prompted by this problem. Anxiety, social isolation, fear-inducing behavior and economic difficulties may result from current pandemics. [11]

Other Adults

Mental illness is more common among the elderly population. About 23% of the country's elderly (those over the age of 55) are already depressed. Stress and deterioration of mental health in elders may be attributed to a variety of factors, including physical distance and the threat of mortality from COVID-19. According to current mental health surveys undertaken in the United States and Canada, seniors (those aged 65 and over) are less likely than other demographic groups to suffer from mental health issues. For whatever reason, it's not obvious why this happened.

Other people with chronic diseases requiring regular visits to health care institutions are being affected by the COVID-19 health care system outage. Mental illness may be a result of the high levels of stress brought on by a lack of timely access to treatment. Depression, anxiety, and suicide thoughts were all shown to be more common among patients in mental health facilities. Because many of these people have already been diagnosed with a serious mental illness, such as schizophrenia or bipolar disorder, a lack of frequent professional contact may have an adverse effect on both their mental and physical health. [12]

People aged 18–30 had the highest COVID-19 peritraumatic distress index in a nationwide survey of people with mental diseases during the COVID-19 pandemic, which indicated that women were more affected than men (CPDI). Mental health issues impact women more than males, according to recent polls in both Canada and France. Because women are more susceptible to the consequences of traumatic experiences, as well as to stress from their many tasks at home and in the workplace, they are more likely to suffer from mental health issues than males.

A significant degree of anxiety was also seen among young people in the United States, Canada, and Belgium, in line with the findings from China. Depression and suicide thoughts are more common among people in these categories. Information from social media was likely to generate stress among China's young.

Greater-educated persons in China, as well as migratory workers, were shown to have higher levels of stress owing to the unpredictability of their income

and exposure levels. Many of individuals who had physical symptoms such muscular pains or dizziness also had higher levels of stress, worry, and sadness than those who assessed their health as fair or poor. Stress levels in the general community were reduced by a well-prepared health care system and constant local information on the epidemic. Having high levels of confidence in doctors, a lower chance of developing COVID-19, proper knowledge of the condition, and personal preventative actions were also shown to be protective against mental health issues.... People with lower incomes in the United States have, for obvious reasons, a greater rate of mental health issues than do those with higher incomes.

Some studies have shown that returning Chinese workers with mental health issues (such as post-traumatic stress disorder (PTSD), anxiety, depression, stress, and sleeplessness) are less likely to suffer from preventative measures like handwashing and face masks.

EPIDEMIC AMONG CHILDREN/ADOLESCENT WITH PHYSICAL/MENTAL HEALTH ISSUES

Since the pandemic was originally declared, several non-essential medical treatments and appointments have been put on hold. For example, a research done by Sutter et al. (2021) found that more than 40% of children with motor disability and their carers experienced greater stress as a result of the Covid-19 Pandemics, as well as the effect of changes to therapeutic access on their physical and emotional well-being. Children with motor difficulties are more likely than their typically developing classmates to have mental health concerns. People's rehabilitation and mental health are negatively impacted by the absence of treatment they get.

Since long before the Covid-19 Pandemic, there have been problems with mental health on a worldwide scale. In the event that this epidemic affects people with mental health issues, what will happen to them? Children and adolescents, as well as adults with and without mental health disorders, were surveyed about their experiences during the Covid-19 pandemic's social constraints. All children and teenagers, whether or not they have a mental health issue, exhibit a rise to the worse in most emotions and concerns, according to this research. Emotions increased considerably among children and adolescents with mental health concerns when compared to those without mental health issues. Mental illness sufferers tend to have narrower social circles and weaker familial bonds. As a consequence, Covid-19 societal limitations may have a less negative impact on people. A possible explanation for these results is that people suffering from mental diseases have developed ways to cope. Covid-19-related restrictions and school closures

may also be utilized as a short-term method of coping with social and performance anxiety for persons with mental conditions.

FACTORS FACILITATING MENTAL HEALTH PROBLEMS/DISORDERS

Three major factors are impacting the population and may lead to mental health problems:

1. The direct impact of the disease, such as near-death experiences, isolation from loved ones during hospitalization, which is a grim experience both for the family and the patients in most African communities, stress from news about high death rates among the very ill and the highly exposed (eg health care workers), loss of loved ones or parents/guardians, and stigma and discrimination among survivors and affected families are all factors. Frontline health care professionals, COVID-19 survivors, families, and children who have lost loved ones to the illness, as well as those with pre-existing mental disorders, will be disproportionately affected by mental health issues.
2. In an effort to limit the spread of COVID-19 by restricting physical interactions, a ban on social gatherings could restrict access to social support structures, inadequate supplies of food and medication, limited access to treatment for those with mental health problems or other chronic conditions and restrictions on access to faith-based institutions and leaders. The primary source of support and care for the elderly in most Sub-Saharan African cultures is the family, which is based on a strong communal and local emphasis. As a result, elderly people in most communities are safe from the horrors that have been documented in high-income care facilities. However, in certain situations, the instructions to keep a physical distance might lead to loneliness.
3. Anxiety coming from the loss of a job or a source of income.

Losing one's employment and means of subsistence may be debilitating for anybody, but it's especially bad for individuals with low socioeconomic level, such as those in the informal sector. Many nations have taken some steps to alleviate the economic hardships, but the cash packages have been small and individuals operating in informal companies have not been eligible for any of the government programs.

A lot of people are debating and even questioning whether the lockdown and physical separation will have any effect on the informal economy, which employs 60% of males and almost 75% of women, as well as the bulk of city inhabitants who depend on it to

meet their basic requirements. As a result, farmers' perishable goods aren't making it to the metropolis as quickly as they had hoped. There would be a severe effect on mental health if lockdown and distancing measures are implemented without enough mitigating measures in place to enable small enterprises and people manage economically. "Communal life is not merely a question of culture in Sub-Saharan Africa; it is an issue of economic survival."

CONCLUSION

This epidemic has claimed the lives of many people they cared about. Mental health and social development for children and adolescents were systematically harmed. This deprivation may have long-term and irreversible repercussions. Unemployment or financial strain on a household has a severe impact on the children and adolescents who live there. As a result of this epidemic, public awareness of the significance of mental health has increased. Covid-19 will be better understood and dealt with by the mental health community as a result of this realisation and ongoing efforts. Rather from being a negative influence, Covid-19 has had a good impact on education in Malaysia, encouraging students of all ages to embrace technology. As a result of the widespread use of online education, formerly underserved communities now have access to a quality education. During the Covid-19, resources on mental health exploded and internet counseling sessions soon became accepted and normalized. Families and adolescents may now get the help they need without fear of being labeled or stigmatized.

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