

The Effects of Covid-19 in the Healthcare System

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Abstract The COVID 19 pandemic has drastically affected the overburdened public health systems in many countries. This has escalated the challenges faced in hiring, deploying, retaining, and protecting adequate well-trained, supported, and encouraged health professionals. This pandemic has highlighted a strong need for sustainable investment in healthcare systems and how crucial it is to develop resilient healthcare systems. Additionally, enforcing the critical role both in crisis response and in building a future that is prepared for health emergencies.

Keywords COVID-19, Healthcare System, Public Health Burden, Healthcare Professionals, Health Promotion

1. Background

Over the last two centuries, there have been different crises that have rocked the core of our world and healthcare system, such as poverty, global warming, world hunger, mental health issues, terrorism, civil wars, crises in Ukraine, Venezuela and Qatar, the swine flu, Ebola, H1N1 influenza (the Spanish flu), the Asian flu and On 11 March 2020, the World Health Organization (WHO) declared coronavirus disease 2019 (COVID19) a pandemic. Three months on from when China first alerted the world to the emergence of this threat, there were more than half a million con-firmed cases and 33,106 deaths reported worldwide (WHO. 2020). Large epidemics have sprung up in Western Europe and the United States. Worryingly, the infection has also emerged in developing countries where the impact of the pandemic will probably be worst. Infectious disease modellers at Imperial College London estimate that without mitigation, COVID19 could result in seven billion people infected and 40 million deaths globally this year (Walker, Whittaker, Watson, Baguelin, Ainslie, & Bhatia S. 2020).

Gurria (2020) explained that the coronavirus pandemic is causing a widespread of lives being lost and severe human suffering; it is a public health crisis in countries worldwide with the developing and under-developing countries struggling to contain the spread of the virus. To date, the covid-19 virus has brought with it the third and greatest economic, financial, and social shock of the 21st Century, after 9/11 and the Global Financial Crisis of 2008 (Gurria, 2020).

This article will explore the effects of the covid19

pandemic on the healthcare system and the issues thereof in developed and developing countries. Firstly, the major definitions of covid19 are presented in the introduction. Then, the discussion of the financial and economic effects of Covid19 (including the physical and mental exhaustion of the frontline healthcare workforce and the growing backlog of healthcare procedures) and the collateral issues such as major disturbances in patient care services to persons with NCDs and Mental illnesses.

2. Introduction

Center for Disease Control and Prevention (2019) defined the coronavirus disease 2019 (COVID-19) as a virus caused by a novel coronavirus, which was first discovered during an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China. The World Health Organization's Eastern Mediterranean Regional Office (2020) explained that the coronaviruses (CoV) are a large group of viruses that cause ailments inclusive of the regular cold to even more severe ailments such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). A novel coronavirus (nCoV) is a new strain that has not been formerly found in humans. The deadly illness was birthed from SARS-CoV-2 and was eventually named COVID-19 by the WHO (2020) and the name was chosen to prevent defaming its foundations in terms of populaces, topography, or animal connotations.

Methodology

Content analysis of six research articles was chosen to identify trends, economic and other effects that were specific to COVID-19 on the healthcare system. The purpose of using this research design was to use qualitative results of articles selected to assist in explaining and interpreting the findings of other quantitative studies used in this paper.

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Signs and Symptoms

According to the Ministry of Health & Wellness (MOHW) (2020) in Jamaica, the most common symptoms of COVID-19 are fever, tiredness, and dry cough. Some symptoms such as pains, nasal congestion, runny nose, sore throat or diarrhea were experienced by patients. WHO (2020) explained that COVID-19 affects different people in diverse ways and that most infected persons will experience mild to moderate form of the illness and recover without hospitalization.

Some fewer common symptoms include loss of taste or smell and a rash on skin, or discoloration of fingers or toes (WHO, 2020). It was highlighted that some serious symptoms were difficulty breathing or shortness of breath, chest pain or pressure and loss of speech or movement. MOHW (2020) concluded that older people, and those with underlying medical problems like hypertension, heart problems or diabetes, are more likely to develop a serious form of the illness and should seek medical attention immediately.

3. Economic and Financial Effects (Inclusive of the Growing Backlog of Healthcare Procedures)

Chan (2009) in his address at the 23rd Forum on Global Issues stated that in times of economic crisis, people tend to relinquish private health care and make more use of publicly financed health services. This trend has come in a time when the public health system in many countries is already vastly overstretched and underfunded like this covid-19 epidemic (Lynch, 2020). In many low-income countries like Jamaica, more than 60% of health spending comes in the form of direct out-of-pocket payments (IMF, 2020). Economic recession upsurgues the risk that people will disregard care, with prevention falling by the wayside, less preventive care is predominantly disturbing at this time when demographic ageing and a rise in chronic diseases, non-communicable diseases and mental illnesses are global trends (IMF, 2020).

Grays (2020) explained that in the United states of America, hospitals and clinics are experiencing a reduction of in-person clinic visits due to social distancing and that the major factor is the halt placed on elective procedures and surgeries in order to prepare for COVID-19 patients. Surgeries have been reduced by approximately 50 percent nationwide and even though the government hospital stimulus fund aims to increase reimbursement for COVID-19 admissions, hospitals are expected to still lose over \$1,000 per COVID-19 patient. (Grays, 2020). Cutler (2020) confirmed Grays (2020) by explaining that since people are being asked to practice physical distancing and minimize outside activities, many people who would otherwise be using healthcare are now choosing to stay home. Cutler (2020) stated that while healthcare workers are busy dealing with COVID-19 patients, healthcare offices are still

suffering from the decline in other patients. His report highlighted that some primary care practices have reported reductions in the use of healthcare services of up to 70% (Cutler, 2020).

The healthcare industry in developed countries typically one of the fastest-growing industries, with an average total of 8,500 jobs being generated monthly; yet, in March 2020, only 200 jobs were generated in the United States of America (USA) (DocWireNews, 2020). When services are cut, as they have been during this epidemic, income streams are lost and with the unexpected loss of revenue, expenses are reduced [(Culter, 2020); (DocWireNews, 2020)]. The situation has gotten so out of control that private hiring firms and hospital operators are announcing layoffs and pay cuts all across the globe (Lynch, 2020). Key ingredients for an effective response appear to be the need for extensive testing, proactive contact tracing, an emphasis on home diagnosis and care and the monitoring and protection of health care and other essential staff. It is clear that the speed of response needed to keep pace with the epidemic spread is exponentially faster than that of bureaucratic processes in health systems. Crucially, there is a need for learning to identify and understand which approaches work (Lee, & Morling, 2020).

Javanmardian, Shellenbarger & Smith (2020) expressed that COVID-19's financial toll has been revealing itself. The Mayo Clinic estimated a \$3 billion revenue deficit in 2020 and is expected to suffer a \$2 billion loss this year (Pieters, 2020). Javanmardian, Shellenbarger & Smith (2020) explained that the fate of what a post-pandemic scene holds implies a return to the normal operating model is definitely not a sustainable choice for the future. Hospitals and health systems should methodically re-evaluate and transmute their organizational models (Javanmardian, Shellenbarger & Smith, 2020).

The physical and mental exhaustion of the frontline healthcare workforce

Our healthcare professionals here in Jamaica and around the world are the direct frontline soldiers in this battle against COVID-19 and are far stretched by demand, double and triple shifts, some are unable to go home out of fear of compromising family members, some are afraid for their lives and the lives of their patients, some are managing troublesome patients who are declining to be isolated as well as treated and many end up in a consistent confusion attempting to be beneficial and productive (Lynch & Okachi, 2020). One can just envision the significant levels of feelings, stress, the physical and mental fatigue that they are encountering during this time (Lynch & Okachi, 2020). According to Mao (2020), with a calamity of this magnitude, psychological counselling for crisis intervention is required for all healthcare and allied staff since they are at higher dangers for mental issues.

During any normal time, 50% of physicians are battling burnout, or emotional fatigue caused by work related stress (West, Dyrbye & Shanafelt, 2018). Many studies explained

that healthcare professionals' mental health was a restrained, widespread public health crisis prior to COVID-19 and now, that they are fighting a deadly virus with personal protective equipment shortages and no evidence-based treatment (Cooch, 2020). Social segregation and individual sentiments of isolation are realized risk factors for suicide, and it is already proven by research that doctors have higher percentages of successfully completed suicides than the general population [(West, Dyrbye & Shanafelt, 2018), (Sani, 2020)].

Research on mental distress in healthcare workers had already shown that doctors were more likely to suffer from psychiatric disorders when compared to workers from other industries (Kim, Kim & Lee, 2018). Additionally, approximately 50% of doctors were suffering from burnout, and that they suffered higher percentages of suicide than the general population (Fink-Miller & Nestler, 2018). A recent study conducted in Wuhan, China demonstrated that women, nurses, and frontline healthcare professionals are especially at risk to experiencing depression, anxiety, insomnia, and distress in these work conditions (Lai, 2020). The novel coronavirus epidemic threatens to aggravate work-related stress among certain healthcare professionals and to intensify their psychological suffering (Bao, Sun & Meng, 2020).

Non-communicable diseases will continue to rise – they were projected to account for 75% of all deaths in 2030 – up from 63% in 2013 (European Commission) Within them, chronic conditions are associated with intensive use of healthcare resources, with for example 70% of total health funding in England spent on 30% of the population that have long-term conditions (Taylor, Pettinicchio, & Arvanitidou, 2019). In addition, mental health is projected to become the leading cause of morbidity and mortality globally by 2030 The Mental Health Foundation (2020).

The Collateral Issues

WHO Geneva (2020) revealed from a recent survey that prevention and treatment services for noncommunicable diseases (NCDs) have been severely interrupted since the COVID-19 pandemic started. The principle finding is that health services have been somewhat or totally disturbed in numerous countries with the greater part (53%) of the countries surveyed have partially or totally disturbed services for hypertension treatment; 49% for treatment for diabetes and diabetes-related complications; 42% for cancer treatment, and 31% for cardiovascular emergencies (WHO Geneva, 2020).

Panchal et. al. (2020) explained the COVID-19 pandemic and the resulting economic recession have harmfully affected several persons' mental health and formed new barriers for persons already experiencing mental and substance misuse disorders. UN (2020) reported that before the epidemic, in most communities in countries all over the world, there was already limited access to quality, affordable mental health care. This access has now been further diminished due to COVID-19 as the epidemic has interrupted health services around the globe (UN, 2020).

Sani et. al. (2020) highlighted that the key factors affecting services are: infection and risk of infection in long-stay facilities, including care homes and psychiatric institutions; barriers to meeting people face-to-face; mental health staff being infected with the virus; and the closing of mental health facilities to change them into care facilities for people with COVID-19. Khoury & Karam (2020) stated that outpatient mental health services around the world have also been severely affected. Interest for up close and personal psychological wellness administrations has fundamentally diminished in light of dread of contamination, especially among older individuals.

There have been some emerging positives from this crisis. Scientific advice, public health and the evidence-based approach to decision-making is valued once more. There has been rapid and considerable information sharing by clinicians and academics enabled by social media, and in keeping with many other leading journals, Public Health has made its COVID19 content freely accessible (Lee, & Morling, 2020).

REFERENCES

- [1] Bao, Y., Sun, Y. & Meng, S. (2020). 2019-nCoV epidemic: address mental health care to empower society. *Lancet*. 2020; 395(10224): e37-e38.
- [2] Center for Disease Control and Prevention. (2019). Novel Coronavirus. Wuhan, China. CDC. Retrieved from https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fabout%2Findex.html.
- [3] Chan, M. (2009). The impact of global crises on health: money, weather and microbes. WHO International- Director General Speech. Retrieved from https://www.who.int/dg/speeches/2009/financial_crisis_20090318/en/.
- [4] Cooch, N. (2020). COVID-19: Impact on Frontline Workers' Mental Health. Retrieved from <https://www.practiceupdate.com/content/covid-19-impact-on-frontline-workers-mental-health/100259>.
- [5] Cutler, D. (2020). COVID-19 and its Impact on the Healthcare Economy. Retrieved from <https://healthmanagement.org/c/cardio/news/covid-19-and-its-impact-on-the-health-care-economy>.
- [6] DocWireNews. (2020). COVID-19's Economic Effect on The Healthcare Industry. Retrieved from <https://www.docwirenews.com/docwire-pick/covid-19s-economic-effect-on-the-healthcare-industry/>.
- [7] Fink-Miller, E. L. & Nestler, L. M. (2018). Suicide in physicians and veterinarians: risk factors and theories. *Curr Opin Psychol*; 22: 23-26.
- [8] Gurria, A. (2020). Coronavirus (COVID-19): Joint actions to win the war. CORONAVIRUS (COVID19): JOINT ACTIONS TO WIN THE WAR © OECD 2020. Retrieved from

- <https://www.oecd.org/about/secretary-general/Coronavirus-COVID-19-Joint-actions-to-win-the-war.pdf>.
- [9] Khoury, R. & Karam, G. (2020). Impact of COVID-19 on Mental Healthcare of Older Adults: Insights from Lebanon (Middle East). Retrieved from https://www.researchgate.net/publication/340901496_Impact_of_COVID-19_on_Mental_Healthcare_of_Older_Adults_Insights_from_Lebanon_Middle_East.
- [10] Kim, M-S., Kim, T. & Lee D. (2018). Mental disorders among workers in the healthcare industry: 2014 national health insurance data. *Ann Occup Environ Med*; 30:31.
- [11] Lai, J. (2020). Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Netw Open*; 3(3).
- [12] Lynch, M.A. (2020). Effects of Covid-19 in the Healthcare System.
- [13] Lynch, M.A. & Okachi, S. (2020). Prioritizing your mental health during this COVID-19 outbreak: A Jamaican perspective. *International Journal of Innovative Science and Research Technology*, Volume 5, Issue 3, ISSN - 2456-2165, PP:- 981-982. Retrieved from <https://ijisrt.com/prioritizing-your-mental-health-during-this-covid19-outbreak-a-jamaican-perspective>.
- [14] Mao, W. (2020). Managing mental health during coronavirus - experts around the world share insights. *World Economic Forum*. Retrieved from <https://www.weforum.org/agenda/2020/03/covid19-coronavirus-mental-health-expert-insights/>.
- [15] Ministry of Health & Wellness. (2020). Covid-19. Retrieved from <https://jamcovid19.moh.gov.jm/index.html>.
- [16] Panchal, N., Kamal, R., Orgera, K., Cox, C., Garfield, R., Hamel, L., Muñana, C. and Chidambaram, P. (2020). The Implications of COVID-19 for Mental Health and Substance Use. Retrieved from <https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/>.
- [17] Pieters, J. (2020). Facing \$3B loss, Mayo Clinic announces payroll, spending cuts for remainder of 2020. Retrieved from <https://www.twincities.com/2020/04/10/facing-3b-loss-mayo-clinic-announces-payroll-spending-cuts-for-remainder-of-2020/>.
- [18] Sani G., Janiri D., Di Nicola M., Janiri L., Ferretti S., Chieffo D. (2020). Mental health during and after the COVID-19 emergency in Italy. *Psychiatry Clin Neurosci*. doi: 10.1111/pcn.13004.
- [19] United Nations. (2020). Policy Brief: COVID-19 and the Need for Action on Mental Health, Retrieved from <https://unsdg.un.org/sites/default/files/2020-05/UN-Policy-Brief-COVID-19-and-mental-health.pdf>.
- [20] West C.P., Dyrbye L.N., Shanafelt T.D. (2018). Physician burnout: contributors, consequences and solutions. *J Intern Med*; 283: 516–529.
- [21] World Health Organization. (2020). Coronavirus. Retrieved from https://www.who.int/health-topics/coronavirus#tab=tab_3.
- [22] World Health Organization Geneva. (2020). COVID-19 significantly impacts health services for noncommunicable diseases. Retrieved from <https://www.who.int/news-room/detail/01-06-2020-covid-19-significantly-impacts-health-services-for-noncommunicable-diseases> Malik, A.S., Boyko, O., Atkar, N. and Young, W.F. (2001) A Comparative Study of MR Imaging Profile of Titanium Pedicle Screws. *Acta Radiologica*, 42, 291-293. <http://dx.doi.org/10.1080/028418501127346846>.