

Impacts of Pandemics: Educator's Perspective

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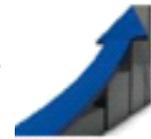
Abstract

The outbreaks of pandemic around the World over the years is alarming and with negative impacts. The aim of this paper is therefore to discuss the concepts of pandemic, history of pandemic, features of pandemic and impacts of pandemic with a view of proffering possible solutions by educators through appropriate interventions. Since school is a vital means of spreading any pandemic (Virus), and school is the best non-pharmaceutical intervention for curbing the spread of diseases during pandemic period, educator's view is a vibrant approach to resolve the impacts of pandemic. There are number of significant crises and/or negative impacts caused by pandemic as recorded in the history of human existence ranging from health impacts, economic impacts, social impacts, political impacts and security threat to the peaceful coexistence of the world. Counselling and intervention for solving the problem caused by pandemic was expatiated. Also, the need for critical assessment of post pandemic activities in the schools in term of personnel and facilities for effective stability of educational sector by expert in educational evaluation was discussed. It is suggested in the body of the paper that the government should take the welfare of educators very seriously to ensure total dedication to their responsibilities. It is also suggested that government should be organizing seminars on pandemics in the school at all levels of education and expert should be employed to present the seminars.

Keywords: Pandemic; Epidemic; Impacts; Infectious Disease.

Introduction

The word "pandemic" comes from the originate of Greek, Pan meaning "all" and demos "the people". The word pandemic is commonly taken to be refer to a wide spread epidemic of contagious disease throughout the whole of a country or more or even continents at the same time (Honigsbaum, 2009). A pandemic is an epidemic of diseases that has spread across a large region, or spread over multiple countries or continents. Pandemic are large-scale outbreaks of infectious diseases that can be greatly increase morbidity and mortality over a wide geographical area and cause significant economic,



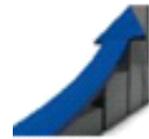
social and political disruption (Jones; Patel; Storeygard & Balk, 2008). Nevertheless, the term pandemic has been conscientiously defined by many modern medical literatures (Morens, Folkers & Fauci, 2009). The internationally accepted definition of a pandemic was found in the Dictionary of Epidemiology (Harris, 2000). A pandemic could therefore be defined as an epidemic of infectious disease that spreads through human populations across large region, multiple continents or globally. Despite significant policy attention that focused on the need to identify and limit emerging outbreaks that might lead to pandemic and to expand and sustain investment to build preparedness and health capacity by experts, pandemic still occur (Smolinsky, Hamburg & Lederberg, 2003). The world in 2014 experienced multiple outbreaks, of pandemic notably the 2014 West Africa Ebola virus and Lassa fever epidemic and present ongoing novel Coronavirus.

The history of pandemic could be traced back to the 1500 and it was recorded that pandemic have struck about three times since 1500 or roughly every 10-50years (WHO, 2011b). In the 20th century, there were three influenza pandemics which were named “Spanish flu” in 1918-1919, “Asian flu” in 1957-1958, and the “Hong Kong flu” in 1968-1969. Each time this pandemic struck, it harmed human life and economic development. Recent years have witnessed some large-scale global outbreaks of pandemic ranging from hanta-virus pulmonary syndrome, severe acute respiratory syndrome, H5NI influenza, H1NI influenza, Middle East respiratory syndrome, and Ebola virus disease (Gostin, Tomax, Wibuloprasert, Jha, Frank, Moon & Dzau, 2016). The influenza H1NI 2009 virus was the first pandemic of the 21st century. It affected the whole world and caused more than 18,000 deaths (Rear, Mirdha & Rear, 2015). Ebola killed more than 11,000 people (Maurice, 2016).

In (2016) Zika virus continues to spread and consequently threatens the health of people in 34 countries (Tronscoso, 2016). Currently COVID 19, also known as corona virus continues to spread and threatens the health and economy of the whole world countries. The outbreak of corona virus makes scientists and governments of the world worries about devastation of corona virus presently. The Table 1 shows the list of some pandemics outbreak globally before the emergency of coronavirus pandemic.

Table 1: List of Some Global Pandemic Outbreaks

s/no	Names of Pandemic	Year Occurred	Death rate	Location of origin
1	Smallpox	201AD – 300AD	Over 300 million	Egypt
2	Human Immunodeficiency Virus (HIV)	1920	Over 20,000	Kinshasa, Congo
3	Zika Virus	1947	Less than 200	Uganda
4	Asian Flu	1957	About 2 Million	Asia
5	Influenza	1968	Over 20 Million	Hong kong



6	Hong Kong Flu	1968	Over 1 Million	Hong kong
7	Spanish Flu	1919	20 – 40 Million	Hong kong
8	H5NI Avian Influenza	2003	Over 300	Asia and Europe Countries
9	SARS-CoV	2003	Over 700	Hong kong
10	HINI Flu Virus	2009	Over 12,000	United States
11	Ebola	2015	Over 1.5 Million	China and Brazil
12	COVID-19	2019	876,587million	China

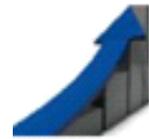
as at sept, 2020

Source: Qiu; Rutherford, A. & Chu, C. (2017). *The Pandemic and its impacts. Health, Culture and Society. 9-10 (2016 -2017) ISSN 2161 – 6590 (online/Doi 10.5195/http://hcs.pitt.edu)*

Features of Pandemic

Pandemic has some features, which help us to understand its consequences and or impacts better. The following are some features of pandemic:

1. **Wide geographical extension:** Pandemic usually extends over large geographical area (Taubenberger & Morens, 2009).
2. **Disease movement:** It usually moves unexpectedly or spread via transmission that can be traced from one place to another place
3. **Severity:** Pandemic has been known to be severe and fatal diseases. Corona virus has a high mortality and morbidity occurrence, because it is a virulent new viral strain that emerges, which the human race and human population has no immunity against presently. The severities of pandemic are usually estimated by the case of fatality ratio.
4. **High attack rates and explosiveness:** it usually characterized by high numbers of attack and by explosive spread. However, if the transmission is non-explosive, even if or if the severity is low or moderate, it is not pandemic (Donaldson, Rutter, Ellis, Greaves, Mytton, Pebody & Yardley, 2009).



5. **Minimal population immunity:** Pandemic often been described in partly immune populations and it usually limiting microbial infection and transmission, population immunity can be a powerful anti- pandemic force (Taubenberger & Morens, 2009). Pandemic is characterized by population immunity and this make it easy for a large portion of population to get infected (Wildoner, 2016).

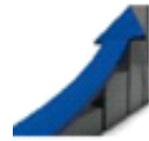
6. **Infectiousness and Contagiousness:** The concept pandemic are not commonly been used to describe presumably non-infectious diseases, such as obesity, or risk behaviours such as alcohol drinking and cigarette smoking, that are geographically extensive and may be rising in global incidence but are not transmissible. Pandemic diseases are infectious, so they are transmitted from one person to another person. The mode of transmission can be direct or indirect. That means it can be contacted from person to person (direct) or from person to vector to person (Morens et al, 2009).

Impacts of Pandemic

Infectious disease outbreaks can easily cross borders to threatens economic and regional stability has been demonstrated by HIV/AIDs, HINI and SARS pandemic (Verikies, Sullivan & Woo, 2015) and presently the corona virus. The consequences are more serious for those directly affected, pandemic have a range of negative impacts on society, political and economic standard anytime it outbreak in any part of the world (Davies, 2013a). The outbreaks of influenza HINI 2009, Ebola 2016 and presently the Corona Virus was not just on mortality, but on health care systems, animal health, agriculture, education, transports, tourism, security and the financial sector. At large, pandemic events threatens all aspects of the economics and social fabric (Drake, Chalabi & Coker, 2012).

Health Impacts

Pandemic impacts in terms of health are catastrophic. HIV/AIDs pandemic killed more than 35million persons since 1981 (WHO, global Health Observatory data, <http://www.who.int/gho/hiv/en>). Presently, Covid-19 pandemics may be higher because the online report according to Wikipedia stated that as at 31st of July 2020, 848, 000 deaths have been recorded globally out of which Nigeria recorded 879. Pandemics have the potential to cause serious illness in a large population and thousands of death. For example, in 14th century, the 'black death' plague killed the half population of Europe. During the Black Death, an estimated 30-50percent of the European population perished (De Witte, 2014). In developing countries especially, pandemic have the potential to claim many peoples lives, range from 5-



10 percent (Kern, 2016). During SARS outbreak in 2002, there were more than 8000 infected persons, with over 700 deaths (almost 9%) worldwide just in six months (Wong & Leung, 2007).

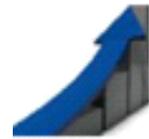
The Ebola outbreak in West African was an unprecedented public health emergency of international concern in 2015. The WHO reported that there were 11,299 deaths in West Africa countries (Liberia, Guinea, Seirra Leone). The estimated cases of fatality proportion were 40% (Naborro & Wannous, 2016).

Economic Impacts

Pandemic is a serious threat not only to human population of the world alone, but also to its economy. The impact of pandemic on global economic loss is tremendous as a result of economic instability. Impacts could be through direct costs, long term burden and indirect costs. Pandemic can cause severe short-term fiscal shocks as well as long-term damage to economic growth. Early phase of public health efforts to contain or limit outbreaks, such as tracing contacts, implementing quarantines and isolating infectious cases entail significant human resources and staffing costs (Achon, Laporte & Gardam, 2005). More so, as the outbreak continues, new facilities may need to be constructed to manage additional infectious cases, this alongside with increasing demand for consumables (medical supplies, personal protective, equipment and drugs) can seriously increase health sector finances (Herstain, 2016).

The revenues may start drastic reduction or totally diminished in case of total lockdown, the tax systems are weaker and government fiscal constraints are more severe. This dynamic experience is presently visible in Nigeria economy presently as ravaging pandemic of Corona virus is ongoing in the world. This assertion was corroborated by (World Bank, 2014) that there is drastic diminished tax revenue and government expenditure increased during the 2014 West Africa Ebola pandemic in Liberia (due to response costs surged, economic activity slowed and quarantines and curfews reduced government capacity to collect revenue, World Bank, 2014). The direct fiscal impacts of pandemic are insignificant compare to the indirect damage to economic activity and growth. The rate at which economy of the world would be growing is at a very low rate because there is tendency to have high number of workforce that would be a victim that can result to sickness and probably death during the pandemic period. The outbreaks of pandemics reduced labour force participation, closes place of work, disrupt transportation, motivates government to close land borders and restrict entry in country, disrupt flight, shipping and cargo services (World Bank, 2014). World Bank economic simulations indicate that a severe pandemic could reduce world gross domestic product (GDP) by 5 percent (Burns, Vander Monsbrugge & Timmer, 2006). During a severe pandemic, all sectors of economy (agriculture, manufacturing, services) face disruption, capable of leading to shortages, hyperinflation, rapid increases in price of staple goods and economic stresses for households, private firms and government.

Social Impacts



Evidence shows that pandemic can have social consequences, creating clashes between states and citizens, eroding state capacity, driving population displacement, and heightening social tension and discrimination (Price – Smith, 2009). The social impacts of pandemic have been a severe thing, include school closure, limiting or closing market and sports activities. All these are present reality of covid-19 pandemic, with potential high morbidity and mortality globally. According to Wikipedia online report of 31st July, 2020, the death rate for Covid-19 in Nigeria was amounted to 879, while the global death was put at 848, 000.

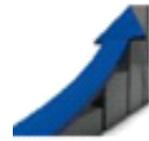
School closure is often considered the best first non-pharmaceutical intervention for implementation in pandemic period, as students are very effective means of spreading the virus. Schools were closed across the world presently, due to Covid19 pandemic, severe modern pandemic have been attributed to serious political upheaval, driven by large mortality shocks and resulting to demographic shift. For example, most notably, deaths arising from the introduction of smallpox and other diseases to the America led directly to the collapse of many indigenous societies and weakened the indigenous people's institutions and military capacity to the extent that they become vulnerable to European conquest (Diamond, 2009).

Security Impacts

Pandemic is a threat to security sectors and it is not a recent phenomenon in the world. Global security is threatened from pandemic diseases in terms of lives and economic instability (Maurice, 2016). Maurice (2016) stressed further, that pandemic diseases are no longer simply the domain of public health and clinical medicine, but are a social issue, a developmental issue, and a global security issue (Castillo-chaves, 2015). The Neglected Dimension of Global Security, a framework to counter Infectious Disease Crises "A Key statement writes" pandemic cause devastation to human lives and livelihoods much as do wars. Therefore, pandemic prevention and response needs to be tackled as an essential tenet of both national and global security, not just as a matter of health (Kern, 2016).

Bioterrorism including biological weapons and bioterrorist attacks, are often come from the 'naturally occurring' emerging and re-emerging of pandemic Military readiness of the impact of influenza pandemic have been paid close attention by Government since 1782 (Parsons, 2004), while the influenza pandemic of 1918 was erroneously named the 'Spanish flu' because of fear of over signaling military weakness. A 'war of disease' reputation was also attracted by influenza in the aftermath of the 1918 Spanish flu pandemic (Frieden, 1977). Likewise, the present novel Covid19 is a serious security threat to the World. The UN security council passed an unprecedented resolution calling Ebola a threat to the international peace and security, urging an escalated response and an end to travel restrictions which several states and nations of world enacted (Gostin & Friedman, 2015).

Needs for Educator's Interventions

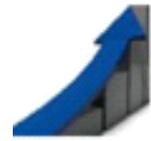


Having discussed the untold hardship, the pandemic caused on human and animal health, economies, social, political and even national and international security of the world among others. The following intervention needs to be taken into consideration:

1. **Post Pandemic Evaluation:** There is need for effective evaluation of facilities and personnel after pandemic. This can only be done by an educational evaluation expert, who will do a standardized assessment of facilities and personnel in educational sectors among others. The visibility studies outcome will guide the government to meet up with challenges posed by pandemic in educational sectors to stabilize educational system. This could be in terms of adequate provision of materials, facilities and personnel to meet up with the school needs after a protracted school closure.
2. **Provision of Counselling Services:** Pandemic impacts were severe include school closure, movements restriction and distancing or isolation as the case may be while counselling is an assistance that is given by a professionally trained personnel (counsellor) to an individual or group of people who have challenges to help them out of their problems. The burden caused by pandemic from death of loved ones, unruly breaking the rules and regulation to prevent further spread of the pandemic call for intervention of counselors. Counselor would re-assure the citizenry to cope effectively with post pandemic life (Ayatse, 2013).
3. **Adequate Information Services:** Another Educator's intervention need in addressing impacts of pandemic is adequate information service such as updates on the pandemic and regular awareness that can prevent further outbreak that could affects entire population. The population and citizen need adequate information on how to further equip themselves on effective distancing, good hygienic living and how to get over social, economic and political crises caused by pandemic (Nkechie, Ikechukwu & Okechukwu, 2012).
4. **Effective Skills Development:** Educator's intervention also should involve skills developments that can enhance their personal skills and social adjustment of the citizens. This will equip the citizen with sound public relations, self-understanding and better management skills which would facilitates good interpersonal relationship and ensure international peace and security.

Critical Assessment of Post Pandemic Activities in Schools.

The outbreak of pandemic is not as endangering as the landmark effect it will cause on every sector especially in educational programmes. For examples, schools at every level have been closed down for several months in Nigeria and mostly all over the world, economic development had also been on stagnation. Therefore, in an evaluator point of view in critical assessment of the post pandemic activities



in schools' system to regain the lost efficiency and effectiveness of teaching and learning, the following effects were critically assessed and possible way out were suggested. They are as follows:

1. Inadequate learning:

The closure of schools has drastically changed the system of learning in several ways. Some schools that have capability for digital and online learning were still progressing in teaching and learning whereas most schools are still lacking behind and unable to continue the process. Moreover, the critical assessment revealed that the rate of learning is low and the deeper understanding of knowledge is low, this shows that the attainment of curriculum is inadequate.

The way Out of Inadequate learning:

The post pandemic solution to this problem of inadequacy or total loss of learning is for the school to prepare a comprehensive and robust services that will engage the community based system of learning whereby some agencies in and out of the community will partner with the school to provide an integrated focus on academics, health and other social services for the school.

2. Class Size:

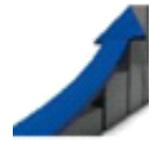
This is another effect of pandemic in the school activities. One of the considerations in the opening of schools is the maintenance of social distances and avoidance of overcrowding at any gathering including schools. The critical assessment before the pandemic shows that majority of the classroom in schools is already overcrowded due to the population of students in compares to the number of classes available. Therefore, the risk of spreading any form of pandemic among students and teachers will be at very high rate if the issue of class size were not critically examined.

The Way Out of Class Size

The number of students allocated to classrooms should be based on the size of the class in accordance with the social distancing procedure. There should also be cross ventilation in all the classes as well as proper education of both the students and teachers on interaction. In addition, the use of nose mask as stipulated by the task force on covid-19 should be enforced in the classroom. Schools can also adopt morning and evening classes in order to make use of the same classroom at different period for different categories of students in achieving same goals and objectives. Finally, distance learning can also be introduced to avoid gathering of students in schools for learning.

3. Total Compliance to Rules and Regulations

Government task force team at local, state and national level has released certain rules and regulations for the re-opening of schools. It is apparent that implementing the rules will be very costly and changes the education landscape. The consideration should be on



both public and private schools. It has to be properly monitored if there will be achievement of goals and objectives.

4. The Way Out of Total Compliance to Rules and Regulations

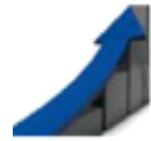
The government should make provision for major needs in fulfilling the lay down rules and regulations, some gadget (e.g wash hand basin) and equipment (e.g. infra red thermometer machine) should be provided for the schools, training and seminars for both students and teachers should be organized. Also, the monitoring team should be put in place to make an unscheduled visit to schools and sanction any school violating the rules and regulations.

5. Medical Attention to the Victim:

The case of covid-19 pandemic also known as coronavirus pandemic is an ongoing global pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-COV-2). The outbreak was first identified in December 2019 in Wuhan, China. The rate of spreading was fast increasing, as at 31st August 2020, more than 25.3 million cases have been reported as confirmed in more than 188 countries and territories according to online report, it was also reported that 848 thousand deaths have been recorded, moreover, 16.6 million people equally believed to have recovered. In the case of Nigeria, the first case was confirmed on the 27th of February, 2020, the case was traced to an Italian citizen who work in Nigeria and returned from Milan, Italy to Lagos. As at 31st of August, 2020 in Nigeria the confirmed cases were given as 43,151 with 19,565 recovered and 879 deaths. The indicates that the rate of spreading and death cases is alarming. Also, cost of treatment according to Lagos state government through commissioner for health does not cost less than one hundred thousand for each victim per day apart from the cost of testing. The critical assessment revealed that it will be impossible for majority of the victim to take care of all the necessary medical and treatment bills.

The Way Out of Medical Attention to the Victim

It is the civic responsibility of the government to provide medical attention for her citizens, therefore, it is very important that prior to the opening of schools, some medical precautions must be put in place by the government. Moreover, first aid medical provisions should be in schools and government should be ready to pay in full for the treatment of any victim, since the reopening of the school might increase the number of the victims and endanger the students. In addition, there is need for regular checkup for both students and teachers in schools to avoid any spread of the pandemic. Finally, regular fumigation of the schools and environment with sanitation of both human and material resources should be considered.



Conclusion

The world can successfully overcome the impacts of pandemic, if educators, from various fields and from both private and public sector all over the globe work together to fight against all negatives effects caused by pandemic. Going through the educator's interventions, it is very pertinent to foster in educators a research oriented mindset, skills and competencies as well as other related attitudes that could make them be inspired to work together as a team to overcome all negatives effects of pandemic. Lastly, the government should ensure good well fare package for educational institutions workers to be highly dedicated to their responsibilities.

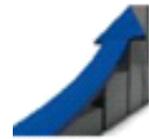
Government should prepare to find positive solution to the effect of pandemic in school activities as observed through critical assessment of post pandemic activities. Also, most of the earlier discovered pandemic can only reduce in the rate of transmission but not completely wiped away, it is therefore imperative for the government to incorporate pandemic as a topic into the school curriculum at all levels of education and experienced teachers should be employed to handle the area of the study.

Recommendations

1. There should be workshops and seminars in schools on the impacts of pandemics in educational programmes in order to create awareness among both students and teachers.
2. The interventions suggested by the educators in this study should be strictly followed in schools for effectiveness and smooth running of educational programmes
3. The community and some relevant agencies should be involved in the development of the schools towards fighting against outbreak of any form of pandemics.
4. Infrastructures should be provided in the schools by concerned authorities and stakeholders should also assist in the proper maintenance of the school properties, this will assist to solve the problem of overcrowding in the classroom.
5. Ministry of education at all levels of government should ensure effective monitoring of schools and educational programmes against any spread of pandemics in schools.

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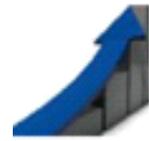
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