An Overview of the Sociodemographic Considerations of COVID-19 Pandemic

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Authors’ contributions

This work was carried out in collaboration among all authors. Author ULO designed the study, performed the literature search, wrote the protocol and wrote the first draft of the manuscript. Authors SCN and SPC managed the literature search and proof reading of the manuscript. Author SPC managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Background: Coronavirus disease (COVID-19) is a highly infectious disease caused by a novel coronavirus strain. The virus is believed to spread mainly by respiratory droplets where the infected people breathe, cough or sneeze and expel little droplets of moisture that contain the virus. Older people and people with pre-existing medical conditions are mostly affected.

Method: Relevant literatures were reviewed from the internet, electronic and print media, World Health Organization and Center for Disease Control documentation.

Results: The coronavirus has brought difficult situations for citizens across the world. Refugees and irregular migrants who find themselves in difficult situations are more vulnerable to the effect of the virus and the social difficulties associated with it.

Conclusion: The spread of the virus can be slowed or suppressed through social distancing, natural immunity, and observance of optimal hygiene practice and near compulsory use of face masks, particularly while dealing with the public.

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1. INTRODUCTION

Coronavirus (Covid-19) epidemic was first reported in late December 2019 in the city of Wuhan in China. It could not be contained within the area of first identification until about 2 months later when the containment measures began to flatten the curve of its spread. WHO after daily follow up, obtaining data and analyzing same findings declared it a pandemic on the 11th of March 2020. [1] As at today (19th April 2020) the global cases reported have come up to about 2,400,000/persons and the death is at 167,000 [2] with Europe and America having over 95% of this morbidity and mortality. By this statement, it is in no way referring to a racial discrimination of the disease, rather, Africa appears to have been spared because of the raptness of proactive world leaders including Africa Nations and WHO who thought it wise to begin early process of lockdowns in areas that have actually not been affected and today we know that it has no sex predilection but discriminates in terms of morbidity and mortality with infants and older age group, immune compromised persons, comorbid cardiovascular, metabolic and chronic conditions, both communicable and non-communicable conditions. There is a high age discrimination since very young and the elderly appear most vulnerable persons.

Coronavirus disease (COVID-19) is a highly infectious disease caused by a novel coronavirus strain. The outbreak was first noticed in the city of Wuhan, capital of Hubei Province in China on 29th of December 2019 [3]. It is a new coronavirus that has not been previously identified in humans presenting with symptoms of acute respiratory disease especially pneumonia, [4] with multiple organ failure and eventual death in severe cases. However, it has been widely reported that over 85% of cases present with mild symptoms, while, about 10% with moderate and 5% with severe symptoms. It is important to note that another lesser percentage could remain asymptomatic. This is a scary scenario since they acquire the status of carriers and may rapidly spread community infections. The virus is believed to spread mainly by respiratory droplets where the infected people breathe, cough or sneeze and expel little droplets of moisture that contain the virus [5]. Another person in the vicinity can breathe in these particles and get infected. The virus-laden droplet can also land on surfaces that others may touch and then get infected by touching any of their orifices i.e., mouth, nose or eyes. Other possible mode of transmission reported includes faeco-oral and airborne. Incubation time (the time from exposure to first symptoms for COVID-19 is 2-14 days) [6].

WHO Coronavirus disease Situation Report-107 in Numbers, 6 May 2020 [7,8].

2. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF COVID-19

People of all ages can be infected by the novel coronavirus leading to COVID-19 [9]. Older people and people with pre-existing medical condition (such as Asthma, Diabetes, and Heart Disease), those who are immune compromised for example, people living with HIV, tuberculosis, and those with protein energy malnutrition (due to poor immunity status), Marasmic-kwashiokor patients appear to be more vulnerable to becoming severely ill with the virus [7]. There may be factors that account for increased death rates such as co-infection, more inadequate healthcare, and patient demographics.

3. AGE

About 80% of those who died in early cases in China as reported by China Health Commission were over the age of 60 years [10]. The median age of the 37 cases detected outside of China is 45 years, ranging from 2 to 74 years [11]. It has been reported that, when compared with many other infectious diseases that affect mostly young children and young adults, for example malaria and Spanish flu, covid-19, is significantly distinct. The elderly are at the greatest risk of dying if infected with the virus [12]. This is because, in general elderly people may have several comorbidities and also because their immune system is weaker than in younger people. However, age itself is not a risk factor but the individual health state which made them more vulnerable. The case fatality rate of covid-19 has been shown to increase with age, according to data obtained from China. Currently, covid-19 mortality risk is highly concentrated among the older ages, particularly those who are 80 years and above [13]. Most affected age group reported in Nigeria is 31 to 40 years, accounting for 21% of the 493 cases reported as at 17th March 2020 [14]. However, young people may not be dying of covid-19 in high numbers, but...
they are still at risk for severe debilitating disease.

4. SEX

With over 2,000,000 coronavirus cases worldwide and thousands (188,000) of deaths, a striking pattern is appearing in the worse-hit countries like USA, Spain, Italy, France and United Kingdom. More men are dying than women [15]. In China, men accounted for the majority of cases and up to 75% of death [16]. In Italy, the ratio of death among men compared to women is 80% to 20% [17]. Italy also reported the highest death rate compared to the rest of the world. USA reported that even though more women were tested for the virus, men were more likely to test positive.According to situation report by WHO issued on January 27th, about 71% of cases of covid-19 detected outside China were males.Male to female ratio among the positive cases reported in Nigeria is 71%; 29% as at 17th of April 2020. Sex disparity has been suggested to be due to immune response to sex hormones (androgen and estrogen) and sex chromosomes (XX, XY). She also explained that male hormones are known to suppress immune response while females generate higher immune response due to estrogen and make antibodies which can clear the infection [18]. This assertion however will remain subject to further scientific verification.

5. SUBSTANCE USE

Outcome, in association with substance of abuse has been reported with the covid-19. Alcohol has a long standing association with diverse immune-related health factors including susceptibility to pneumonia and other respiratory diseases and those who drink alcohol also recover slowly from infections. Men are consistently more likely to drink alcohol and almost twice as likely to binge drink as compared to women [19]. Any kind of tobacco smoking is dangerous to all systems of the body including the respiratory and cardiovascular systems as this makes them at risk of developing severe covid-19 symptoms [20,21]. European Centre for Disease Control and Prevention (ECDC) added smokers among those who are at risk of COVID-19 [22]. Several publications have affirmed that acute smokers were at greater risk of dying from the virus than elderly people and those who do not smoke [23,24]. Some countries where the rate of smoking is approximately the same in men and women still reported higher rate of positive cases and fatality of covid-19 among the men as seen in Spain [25].

6. MIGRATION BACKGROUND AND LIVING CONDITION

Travelling history has been reported severally in covid-19. The first case of the virus was reported in Wuhan, China and spread to other countries has been through traveling of infected persons to other countries outside the host country. In view of the high volume of air traffic and trade between China and Africa, Africa is at a high risk for the outbreak and spread of the novel coronavirus disease [26]. The pandemic’s progression and impact are strongly related to movement from one place to another by asymptomatic carriers of the virus. The coronavirus has brought difficult situations for citizens across the world. Refugees and irregular migrants who find themselves in difficult situations are more vulnerable to the effect of the virus and the social difficulties associated with it. Some countries, like Australia, have barred entry to all neither non-citizens nor residents. Others, like the US, have suspended the entry of people from certain places. Social distancing has however been implemented both within and outside the countries of the world, where individuals are expected to keep a distance of about 2 metres or 5 feet from one another. This has become necessary to curtail the spread of the disease. Higher rate of spread of the virus has been reported in places where people are crowded and where we have close family settings [27,28].
7. MEDICAL COMORBIDITIES

It has been reported that people with chronic underlying diseases may be at increased risk of severe covid-19 disease and death. Of the 16 patients with severe covid-19 disease reported in the studies in the largest Chinese cohort, 38.7% had co-morbidities which ranged from Hypertension 24%, Diabetes 16%, coronary heart or cerebrovascular disease 8%, Chronic Obstructive Pulmonary Disease (COPD) 4%, Chronic Kidney Disease 2% and Cancer 2%. Other such comorbidities can include HIV and Tuberculosis to mention but a few.

8. AREAS MOST AFFECTED BY THE VIRUS

The virus first started from Asia which has a very strong trade and economic relationship with Europe, also having some other relationship with games and sports because there are usually movement of sports men and women particularly footballers from Europe and America to China where they expand their frontiers of professional practice looking for higher fees. This could explain why the spread from China to America and Europe was quite fast. To further buttress this point, it could equally be seen that most of the European countries who started the lockdown and closure of their borders (sea, land and air) are less affected compared to United State of America, European countries such as Italy, Spain and France. The human traffic particularly by air towards Africa is much significantly less than what obtains between Europe, Asia and America.

9. CONCLUSION

The effort of WHO should be commended as itsproactiveness gave quick and unambiguous timely information to the world. This raised the consciousness of African Nations. There is a great lesson to learn from this, because there would have been a worse disaster facing the world today by this unseen enemy that would have put the whole world in mounting anxiety and disarray if the rate of infection towards the African continent was not halted on time. A situation where the super health facility in Europe, America and Asia has been overwhelmed, not much would have been left to imagination regarding what would have happened to Africa. Hence, this is a clarion call for the whole world and Africa in particular to look again at her Health System structure in terms of interventions in infectious diseases of this nature, and magnitude.

The article shows how this so-called pandemic disease spreads in Africa, Nigeria and all around the world. The conclusion is that prevention, keeping the physical distance (social distancing especially while outside one’s home), and increasing one’s immunity most especially in the young and elderly people and observance of optimal hygiene practice, and near compulsory use of face masks, particularly while dealing with the public will slow or suppress the spread of the virus. There is room for more research on the relationship between the covid-19 virus and the panic created worldwide. There is also room for more research to find out if the disease is an inflammation or a kind of flu which can explain why its association with pneumonia can kill people with comorbid chronic medical illnesses.

AVAILABILITY OF DATA

Internet, electronic and print media, WHO and CDCs documentation.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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