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Redefining Coronavirus: Update on the Impacts of COVID-19 in the Rural Areas of Abia State

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Abstract

Public health professionals working in rural communities are aware of the health disparities which result from lack of physicians, limited services, and income during the pandemic. Also they are aware that some populations are more vulnerable than others. People in the rural areas are experiencing problems on their physical, social and economic life styles because the pandemic is exacerbating some inequities. Individuals especially women and children in the rural areas are facing barriers in accessing health care services due to lack of resources and availability of health care providers in the communities. With COVID-19, women are less likely to seek services, including sexual and reproductive health services. Such services may be postponed to limit exposure to COVID-19 infection. This is particularly disturbing because in addition to the women maintaining their own health, they are also responsible for taking care of the mental, emotional and physical health needs of their families as well as all domestic responsibilities. As such, women in rural settings face special challenges as a result of these significant roles they play. Therefore, the impacts of COVID-19 are exacerbated on women by virtue of their sex and the roles they play in the family.

This is a qualitative study that reviewed the reports of the 36 health care professionals under the aegis of members of COVID-19 committee working in partnership with state government to control, prevent and cushion the effects of COVID-19 in the society. This study is therefore, a summary of the observations of the COVID-19 committee members made up of 10(27.8%) females and 26(72.2%) males. The study focused on exploring how individual lifestyles in the rural areas have been affected in the face of COVID- 19 pandemic by identifying the vulnerabilities in social, political and economic systems which can amplify the impacts of the pandemic.

Findings showed that preventive measures like lockdown and social distancing rules, wearing of face mask, hand washing with soap, and environmental cleanliness were not observed. The study noted that health seeking behaviours, sexual and marital life including income, education, employment and social interactions were all negatively affected. Most hospitals were battered and health care professionals boycotted the hospitals for fear of being infected. It was found that lack of health workers in the hospitals caused a good number of individuals to engage in self-medications. Also most pregnant women delivered their babies at home and few with traditional birth attendants. Some of the women who had deliveries at home experienced complications during and after delivery. Unfortunately, the report showed that governments' financial supports

to these women and their family members were insignificant as the government was more concerned with mitigating the spread of COVID-19 than assisting women to have safe deliveries.

Therefore, the vulnerable groups especially women, children, and the elderly who experienced threats to their safety and wellbeing as a result of the services that were disrupted during the pandemic, should be assisted so as not to lose their lives to preventable diseases.

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Introduction

Studies have found that coronavirus (COVID-19) pandemic is growing exponentially and researchers, technologists, doctors and other health care workers are working assiduously to develop vaccines and medicines to control and treat this highly infectious and lethal virus. With the exponentially increasing infections, proportionate fatalities are being reported both in developed and developing countries. As of today, millions of people have been infected all over the world and a good number of them have lost their lives to the infection [1-3].

In every sphere of life, from health care to the economy, security, social interaction, education, child care and family relationships, the impacts of COVID-19 are exacerbated especially in the rural areas and particularly among the vulnerable groups [4, 5]. Realizing these, there is need for health workers and researchers to explore how individuals' lives in the face of COVID- 19 are affected in the rural areas so as to prioritize measures that will respond to immediate and long-term recovery efforts.

COVID-19 is an emerging acute respiratory infectious disease, that spreads through the respiratory tract, by droplets, respiratory secretions, and direct contacts. Realizing that there are the possibilities of other routes of transmissions, health workers should ensure that individuals are protected from multiple infections. This will mean encouraging individuals to take extra care to protect themselves from the infection. Therefore, individuals should be assisted to understand the following: routes of infection and disease manifestations, incubation period of 1-14 days, and the contagious nature of the virus during latency period [6-9]. Individuals should be aware that the virus is spread mainly from person-to-person, between people who are in close contact within 6 feet, through respiratory droplets of an infected person when the person coughs, sneezes or talks and inhaled into the lungs. It can also be spread by people who do not show symptoms. It is also possible to be infected through touching surfaces or objects that have already been infected with the virus. This is why washing of the hands often with soap and water as well as using alcohol-based hand sanitizer should not be circumvented [10-14].

The CDC lists of common symptoms of the virus include: Fever/chills, cough (dry and wet), noticeable fatigue, difficulty in breathing or shortness of breath, body and muscle aches, headaches, sore throat, loss of smell or taste (anosmia), runny nose or congestion, vomiting and nausea, diarrhea and other gastrointestinal issues. However, these symptoms manifest differently in each individual, and that is why the CDC's lists change as more people contract the virus[15-18].

Information from several authors show that a good number of patients infected with the virus get good prognosis, while a few others progress to critical conditions, especially the elderly with chronic underlying diseases. The complications that those that are infected experience include: acute respiratory distress syndrome (ARDS), arrhythmia, shock, acute kidney injury, acute cardiac injury and liver dysfunction. The secondary infections tend to progress faster in the elderly people within few days from the occurrence of the first symptoms and subsequently, death may result among people aged 65 years or above [19-22]. However, the harmful effects of the pandemic are not evenly distributed. The effects are more pronounced among children, women and the elderly. The effects are also more on those in the rural areas than in the urban areas. These constitute the vulnerable groups [23-26].

While available evidence indicates that the direct impacts of COVID-19 on children and adolescents' mortality rates are very limited, the indirect effects on their mortality rates stem from disruptions in health care systems, loss of household incomes, poor health care seeking behaviour, disruptions in preventive interventions such as vaccinations, family planning and others, including reductions in routine health service coverage levels[27-31]. Studies have revealed that about 1.2 million under-five deaths have occurred globally in the last six months of the pandemic due to reductions in routine health care service coverage levels and also increases in child wasting[32-34].

The aim of this study is to document available up-to-date information on the impacts of the pandemic on individuals in the rural areas. The study highlights potential areas of academic research which are impacted by COVID-19. The study provides awareness on how to identify research areas related to the impacts of COVID-19. It helps to expand the understanding of other researchers on how to address the psychological and other impacts of this pandemic so as to reduce the effects of the virus on individuals.

Materials and Methods

Motivated by the rapid spread of coronavirus disease 2019 (COVID-19) in the rural areas, the researchers documented the impacts of the pandemic by reviewing the reports of the 36 health care workers under the aegis of COVID-19 committee members who are in charge of providing and coordinating COVID-19 prevention services. This means that the data and materials used during the study are all available in the reports. The study is therefore a qualitative study that summarized the observations of the 36 COVID-19 committee members made up of 10(27.8%) females and 26(72.2%) males. Measures taken by governments to contain and mitigate the COVID-19 pandemic in order to reduce the impacts on lives especially those of children, women and adolescents were also reviewed.

During the review, likely areas necessary for academic research were identified for investigations. This was done because of the little amount of data that were available on COVID-19 prevention. Therefore, research must be carried out to identify how to reduce the likely depression and psycho diseases individuals in the rural areas may experience during the pandemic.

Results

The study found that regular water supply, sanitation and hygiene conditions in most households in the rural areas, which are essential to prevent the spread of infectious diseases including COVID-19 were lacking. Also health care facilities were not functioning because doctors and other health workers deserted the place for fear of being infected. This made the residents unable to access health care services. The most disturbing finding is that a good number of pregnant women had home deliveries because the hospitals were completely deserted. Those with complications had no opportunity of being managed by health care professionals. Even children were denied routine immunization including the much-needed government free meals for school children because of the suspension of services. Finding showed that the provision of free school meals which constituted the measures governments could take to contain and mitigate the COVID-19 pandemic among children in the rural areas were stopped despite the heightened stress of financial insecurity families faced during the lockdown.

Finding revealed that a good number of women and children experienced increased threats of violence, abuse and neglect from family members. Importantly, all restrictive measures necessary to bring the current

pandemic under control were all flouted. Measures like washing hands frequently and properly with soap and water, sanitation and hygiene services for households, social distancing, wearing of face mask which are critical in preventing the infection were all neglected. Several people complained of lack of soap and water at home. Further finding showed that all village meetings and social gatherings were face to face and individuals crowded in large groups thereby neglecting social distancing.

The report showed that some individuals exhibited health conditions that suggest they have contracted some infections. For example, it was reported that some individuals experienced loss of smell and taste (anosmia), some had vomiting and diarrhea, some had hampered breathing, high fever and general body weakness. The fascinating finding is that despite the health conditions these residents complained of, all of them vehemently refused to submit their samples to the committee members for testing. They argued that these are common signs and symptoms that go with malaria which are easily treated with traditional medicines.

In the process of reviewing the observations of the 36 committee members on COVID-19 prevention in communities, it was noted that to prevent unexpected outcomes, researchers, technologists and health workers should regularly collect statistics on the following issues: how to encourage sustainable economic and social profits to people in the rural areas while still maintaining CDC guidelines, how to improve productivity and sustainable medical services, to examine the extent to which COVID-19 can cause depression, how to generate proper positive communication and accurate information to assist people in the rural areas prevent COVID-19, strategies that will discourage face to face meeting in the rural areas, assessing the psychological effects of the virus, the stigma and relevant mechanisms to overcome them. If data are available on these issues, many of the constraints experienced in generating inclusive data on COVID-19 prevention will be reduced.

Discussion

The pandemic is exposing vulnerabilities in social, political and economic systems which in turn amplify the impacts of the pandemic in the rural areas.

Washing hands frequently and properly with soap and water is very critical in preventing diseases yet a good number of people in the rural areas lacked soap and water at home. Adequate water, sanitation and hygiene services for households are essential in preventing the spread of infectious diseases including COVID-19. The low levels of coverage of these basic services in the rural areas suggest the extent of vulnerability of these populations to the pandemic.

The finding that people in the rural areas, organized village meeting without observing social distancing, shows that they are not aware that indoor activities where people spend prolonged periods of time close to each other, constitute risks to COVID-19 infection. Indoor activities like church worships, markets, village meetings and other areas where people gather under one roof are significant risk factors of contracting the coronavirus. This finding was also confirmed by the findings of [7,12,15, 21]. Also findings that preventive measures like lockdown and social distancing rules, wearing of face mask, hand washing with soap, and environmental cleanliness were not observed showed that some individuals in the rural areas were exposed to COVID-19 infection. This finding may constitute crisis for some children, women and the elderly who are more vulnerable to COVID-19 infection than others. The impacts of these on them can be lifelong.

The fact that there were disruptions on health care services including preventative interventions like vaccinations, antenatal care and family planning which resulted in some pregnant women having home deliveries suggest the likelihood of widespread complications including maternal and under-five mortality. Government should take measures that will contain and mitigate these problems by having persistent and far-reaching solutions that are capable of improving the accessibility of health care services for children and others. This will positively affect their lives and prevent women and children missing out of life-saving interventions. Closures of hospitals and other health care services in response to the COVID-19 pandemic will negatively affect the health of a good number of women, children, and others. The government should also ensure that center for disease

control (CDC) guidelines on infection prevention are in place in hospitals and other social service institutions to enable them reopen and operate safely. These guidelines should include provision of facilities for regular hand washing with soap and water, daily disinfection and basic drinking water and sanitation services.

The fact remains that the report confirmed that some children and women during the lockdown experienced violence, abuse and neglect as a result of financial insecurity which limited access to household needs like availability of food items and other social services. This finding also agreed with those of [1,18 , 25] that during the lockdown, families were less able to afford basic necessities of life, such as food, water, access to health care services, education, and that these gave rise to widespread violence, exploitation and abuse.

However, the coronavirus pandemic resulted in several constraints in generating inclusive information for research due to the competing urgency of multiple public health threats that require monitoring as well as the general disruptions to data collection protocols. Monitoring and evaluation efforts, including surveys were severely affected. National statistical offices in the country suspended operations so as to protect the health and safety of the staff and the public. As a result, data collection efforts were conducted using alternatives to person to person interviews. Though these alternative methods could generate important data on the burden and effects of coronavirus, individuals in the rural areas are likely to be left out in the exercise. To overcome the risks, and turn crises into opportunities, special considerations should be given to collecting data that will reflect the current experiences of individuals in the rural areas so as to determine the extent to which they participate in the step by step guidelines to COVID-19 prevention.

Lack of high-quality data will adversely affect evidences on COVID-19 control measures in the rural areas. This will compromise the abilities of health care workers, scientist, researchers and others to generate valid and reliable data for analysis and dissemination of results on COVID-19 findings. There are challenges in gathering reliable and inclusive data on COVID-19 control measures for prenatal, perinatal , postnatal and on child welfare services. Here, health records are usually consulted as valuable sources of information, because they contain details of pregnancy, mode of delivery, conditions at birth, Apgar scores and birth weight. With home deliveries, it becomes difficult to access valuable information. The data collected on assessments can be used to plan appropriate intervention services for mother and child. This is necessary because COVID-19 is a new disease and researchers and scientists are still learning about how it spreads and the severity of the illnesses caused.

COVID-19 pandemic, as a public health emergency of international concern, has posed new challenges to researchers and scientists. With academic research, there will be a better understanding of COVID-19 and its socio-economic consequences in the society. Therefore, extensive research is required for the development of health care measures that will deal with the prevention of COVID-19 pandemic in the rural areas. There is imminent need for research to improve the battered economy which has taken tremendous toll in the rural areas. This is necessary because the federal government is spending billions of naira to combat the coronavirus, yet the spending does not show reasonable signs of progress in the reduction of the virus infection.

Therefore, to overcome this risk, and turn crisis into opportunity, considerations should be given to collecting data that will identify the experiences of individuals in the rural areas as well as show their readiness to practice CDC guidelines on disease prevention. This will involve adopting proactive strategies that will enhance all the stages of data collection processes from study design to the dissemination of results.

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Declarations

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Conflict of Interest

There is no conflict of interest.

Ethical Approval

Ethical Review Committees of the Abia State University Teaching Hospital approved the project before the commencement of the study. After the approval from the ethical committee, informed consent was sought and obtained from the COVID-19 committee members before the study started.

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