

## Original Research Article

# Addressing the challenges that affect COVID-19 prevention in the rural areas of Abia State, Nigeria

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## ABSTRACT

**Background:** Using directives have been the standard approach of changing public behavior. But studies have shown that directives fail because people hate being told what to do. Telling individuals to use limited resources and other social amenities in rural areas to prevent coronavirus disease 2019 (COVID-19) infection may lead to skepticism in practice of public health recommendations on COVID-19 prevention. Even non-availability of basic hand washing facilities (soap and clean water) which form fundamental mechanism to prevent COVID-19 can expose people to infection. Study assesses factors and conditions that influence the practice of Center for disease control (CDC) preventive measures against COVID-19 in rural areas.

**Methods:** This is a qualitative study that utilized information from 36 health care professionals under the aegis of committee for COVID-19 prevention. These committee members are working together in partnership with state government to provide services to control, prevent and cushion effects of COVID-19 pandemic.

**Results:** Findings from 36 health care professionals made up of 10 (27.8%) females and 26 (72.2%) males showed that factors such as denial of existence of the virus, labeling virus as only urban limited, poor knowledge of mode of transmission, terming virus as ploy politicians use to siphon resources meant for rural development contributed to non-observation of CDC guidelines for COVID-19 prevention.

**Conclusions:** Denying existence of COVID-19 and not observing CDC guidelines will increase community transmission thereby, expose people in communities to infection. Therefore, education is needed to enlighten people in communities on benefits of observing CDC guidelines.

**Keywords:** COVID-19, Prevention, Rural areas, Partnership, Opinion

## INTRODUCTION

Studies have shown that using directives as standard approach for changing public behavior has constituted great challenge to the success of health care work. Directives have failed because individuals hate being told what to do but rather prefer to find out what they can do to avoid certain situations. Three ways to overcome this obstacle have been suggested by some authors. First, gaps should be highlighted between individual thoughts and

actions to be taken. This means that there is need to differentiate between the advice individuals give to others and what individuals can do for themselves. Second, obstacles can be overcome by using questions rather than statements when individuals are forced to examine their feelings or opinions on an issue. Finally, requests for individuals to change behavior should start with smaller issues before asking them for bigger ones. These approaches are viewed as more likely to enhance behavior change rather than directives.<sup>1-3</sup>

Government and public health organizations charged with the responsibility of changing behavior during the pandemic, are now faced with challenges in getting people to practice social distancing, wearing face mask, washing hands with soap and water.<sup>4-6</sup> The problem is that people are expected to practice these actions for weeks and potentially months. Not surprisingly, almost everyone is relying on these standard approaches to achieve behavior change. The challenge is that people are told what to do by issuing commands like : don't go out, stay at home, stay six feet apart, wash your hands, and wear face masks.<sup>7,8</sup> Studies have stressed that directives are not particularly effective in driving sustained behavior change because people feel that others are controlling their choices.<sup>9,10</sup> As a result, people ask questions like: why are we asked to do these? What will be the effects if we do not do these? What action will be taken against those who do not practice these? Why should others influence our decisions? In asking these questions, people do not just adhere, they push back against the persuasive attempts.<sup>12-14</sup> People discuss with friends and relatives and they are discouraged from practicing the activities that would enable them prevent COVID-19 infection.<sup>16,17</sup>

Studies have suggested that the innate anti-persuasion radar of individuals is responsible for raising defenses that encourage individuals to avoid, ignore, and counter-argue any message on the need to observe CDC guidelines on the prevention of COVID-19 infection. As a result, several reasons are conjured up on why the guidelines should not be observed.<sup>18-22</sup> This study will, therefore, identify individuals' response measures that affect the prevention of COVID-19 infection in the rural areas.

Studies have consistently noted the exposure levels to the virus among populations. It has been identified as low single digits showing that there are more individuals infected with coronavirus than have been diagnosed with it. However, a tiny fraction of this number achieved herd immunity.<sup>23-26</sup> In another study, 21 percent of residents in the community have had COVID-19 antibodies already, making the area not just the deadliest community for COVID-19 pandemic infection but also the most infected area and, by outcome, the farthest to herd immunity.<sup>27,28</sup> In similar studies, about 32 percent of individuals who were tested for COVID-19 infection have already had the antibodies, which showed that in the area, the disease was not as severe as it might have seemed at first glance, and the community as a whole was halfway to herd immunity. It was observed that the extent of exposure was very dreadful, showing that much more infection is almost inevitably.<sup>29-31</sup> The question is: do people in the rural areas accept that COVID-19 is severe and actually killing individuals? Since November the pandemic started in Wuhan, it has killed well over 570,000 individuals around the world. Out of these, 53 percent of them died from COVID-19 respiratory failure alone.<sup>32,33</sup> This represents a large body of evidence to give clear picture of the threat of the pandemic.

Initially, coronavirus was seen as an infectious variant of a familiar family of diseases, and not a mysterious ailment. At the population level, there were uncertainties that confused and frustrated public-health officials. This made them unsure when and in what form the lockdowns should take because the disease proved unpredictable even at the clinical levels. As a result, doctors continued to revise their understanding of COVID-19's basic pattern in different directions. The clinical shape of the disease was presumed to be a relatively predictable respiratory infection but this is getting less clear each day as the virus expresses itself in complicated ways by attacking and undermining the functioning of a variety of organs.<sup>34,35</sup> But the question is: can scientists identify any other virus that is weird in terms of its range of symptoms? Therefore, relevant education is needed to inform individuals on the need to prevent being infected.

Without any doubt, COVID-19 flourishes in an indoor environment where people spend prolonged periods of time close to each other. This makes indoor activities exclusively dangerous. Indoor activities like dining, movie, theaters, retail stores, churches, malls, and others are areas where people gather under one roof. These areas put people at significant risk of contracting the coronavirus. This is why being indoors is so dangerous to COVID-19 infection because it spreads through respiratory droplets that fly when an infected person talks, sneezes, sings, or speaks.<sup>36-38</sup> Studies have shown that the closer one is to people the greater the risk of infection. Also, prolonged indoor stay increases the risk substantially. However, if social distancing is maintained, then outdoor activities will pose medium risk of contracting the COVID-19 virus.<sup>39</sup>

## METHODS

This study was a qualitative study. The researchers made use of rapid phone-based surveys to collect information on factors that affect the practice of COVID-19 prevention methods in the rural areas. The study used a total sample of 36 health workers made up of 10 (27.8%) females and 26 (72.2%) males who are members of COVID-19 committee members for the study. That means that only health workers who are members of COVID-19 committee were included in the study. Therefore, health workers who are not members of COVID-19 prevention were excluded from the study. In doing this, information was collected from the 36 health workers who are working under the aegis of COVID-19 committee members. The information collected from these health workers centered on the challenges they encountered in the process of COVID-19 prevention in the rural areas as well as the strategies they used in solving the challenges. Information was also collected on the extent to which the Nigerian Center for Disease Control (NCDC) guidelines were practiced. The study further assessed response measures health workers used in scaling up preparedness, strengthen capacities and systems to meet the challenge of COVID-19 so as to maintain uninterrupted essential health services.

The study was done for two working weeks, (10 days) in April 2020. During this period, information was collected from the 36 COVID-19 committee members through the use of rapid phone-based surveys. These committee members are the ones responsible for conducting, monitoring and evaluating all COVID-19 prevention activities in the State. Information collected from them were documented and analysed using tables and percentages.

## RESULTS

The findings of this study were based on information got from 10 (27.8%) female and 26 (72.2%) male health workers who are functioning as COVID-19 committee members as shown in Table 1. The health workers were made up of nurses, public health practitioners, physicians, and pharmacists. See table 2 for details on their professions.

**Table 1: Sex distribution of the COVID-19 committee members.**

Sex	Frequency	Percentage
Female	10	27.8
Male	26	72.2
Total	36	100

**Table 2: COVID-19 members by profession.**

Profession	Frequency	Percentage
Nursing	6	16.7
Public health	4	11.1
Physician	19	52.8
Pharmacy	7	19.4
Total	36	100

The age ranges of the health workers span from 25 years to 50 years and above.

**Table 3: Age distribution of COVID-19 members.**

Age in years	Frequency	Percentage
25-29	3	8.3
30-34	4	11.1
35-39	8	22.2
40-44	7	19.4
45-49	9	25
50 and above	5	14
Total	36	100

Table 3 contains the details on their ages. These health workers work with community leaders as important entry points for sharing information on COVID-19 and for contact tracing and testing.

**Table 4: COVID-19 members and factors that discouraged COVID-19 prevention.**

Factors	Frequency	%
Lack of resources to procure hand washing facilities and face masks	9	25
Seeing the virus as ploy politicians use to siphon resources meant for development	10	27.8
poor knowledge of mode of transmission	16	44.4
Denying total existence of the virus	19	52..8
labeling virus as only urban limited	21	58.3
Viewing coronavirus lockdowns especially social distancing as punishment	9	25
Constant and prolonged village meetings without social distancing and face mask	24	66.7
Resistance to undergo COVID-19 test	12	33.3
Constant domestic violence	18	50
Self- medications	15	41.7
Refusal to disinfect all premises	9	25
Resistance to adhere to all instructions given	17	47.2
Feeling that it will be better to die from COVID-19 than to die from hunger	20	55.6

The committee members narrated the factors that limited COVID-19 prevention in the rural areas. The findings showed that 22 (66.7%) of the committee members observed that individuals in the rural areas engaged in constant and prolonged village meetings without social distancing and face mask. Also 20 (55.6%) stated that individuals were of the view that it will be better to die from COVID-19 than to die from hunger. The finding revealed that most times, the health workers met with hostility from the residents, especially at the point of collecting samples from confirmed contacts for COVID-19 test. There were occasions when some members were almost stoned. Further finding revealed that it was very difficult to convince able bodied people to remain at home as the following questions were constantly asked by the youths: what shall we be doing at home with our aged parents, grandparents, younger brothers and sisters? Will staying at home provide our needs? Why should we not interact with our friends? Why are we being forced to stay at home? Details are contained in Table 4.

The health workers were requested to state the strategies they used to contend with the behavior of people in the

rural areas towards COVID-19 prevention. The findings showed that the health workers initiated several actions including briefings on transmission, symptoms, testing, and care seeking for COVID-19 prevention. That is, 21 (58.3%) of the committee members sensitized the community members and provided them with relevant information that will enable them dispel myths, rumors, and the misconceptions they have on COVID-19 infection. The report confirmed that 28 (77.8%) of the COVID-19 committee members made frantic efforts to ensure that individuals protect themselves and their families from COVID-19 infection by insisting that they observe NCDC guidelines for prevention. Table 5 contains details of such strategies.

**Table 5: COVID-19 members and strategies used to contend with problems of COVID-19 prevention.**

Strategies used	Frequency	Percentage
Engaged community leaders in planning COVID-19 response	18	50
Provided food items and resources to needy individuals.	17	47.2
Provided counseling and relevant information on COVID-19 prevention.	21	58.3
Prioritized testing to target those at highest risk for COVID-19 infection	15	41.7
Disinfected all surfaces in the communities.	7	19.4
Provided inpatient facility to those who are symptomatic and tested positive prior to presentation.	14	39
Encouraged increased use of important health services for prevention and treatment.	12	33.3
Taking people under force into detention facilities for repeatedly disobeying organizing overcrowded events.	13	36.1
Made frantic efforts to encourage individuals to adhere to NCDC guidelines of prevention	28	77.8

## DISCUSSION

Despite the efforts of the team to sensitize community members by providing essential information and dispelling myths, rumors, and misconceptions on COVID-19 infection, the committee members still met with great

resistance in enforcing the practice of CDC guidelines for COVID-19 prevention. The finding that COVID-19 committee members working in the rural areas met with resistance in the enforcement of CDC guidelines for COVID-19 prevention despite the sensitization exercises was also noted by other studies.<sup>8,14</sup> There is need for the health workers to use other measures that will encourage individuals in the rural areas to practice these lifesaving principles with ease. This is necessary because science has listed the following organs: brain, eyes, nose, lungs, heart, blood vessels, livers, kidneys, intestines, in short, nearly every organ as vulnerable to COVID-19. Moreover, coronavirus pandemic is not just a public-health crisis but also a scientific one since the disease expresses itself in complicated and hard to understand ways.

Our results consistently showed that persuading people in the rural areas to observe CDC guidelines did not work. For young people, they found it difficult to stay at home during lockdown. They resisted all instructions and asked questions on why they should sit idle at home instead of carrying out duties that will encourage subsistence. It was difficult to convince people who felt well even after testing positive to remain at home. Health workers were particularly sensitive to the misinformation around COVID-19 in the rural areas, as well as the politicization of the virus. Studies have also observed that COVID-19 has been over politicized.<sup>31,32</sup>

While a lot of people may be practicing CDC recommendations, getting everyone to stick to the recommendations has been a tougher task for the health workers because people in the rural areas are still congregating in groups without using face masks and practicing social distancing. Moreover, some churches, with the support of local leaders, are flouting stay-at-home orders as well as social distancing. A good number of youths disobeyed and started businesses that neglected CDC guidelines. The argument is that the virus is not in the rural areas but rather in the urban areas and that no single person can be infected with the virus in the rural areas.

Therefore, whether health workers encourage people to maintain social distancing, thoroughly wash hands with clean water and soap, and wear face masks to change behavior, too often, health workers default in their approach of ‘pushing’ individuals to adhere. Being forceful to achieve behavioral change could make individuals feel threatened. Once people feel threatened, it becomes harder to get them change to the desired behavior. Therefore, if health workers could understand the barriers that affect behavioral change and address them, then change in behavior can be achieved without resistance.

It is assumed that if individuals in the rural areas had been provided with relevant information before the lockdown, that is, providing them with enough facts, figures and reasons why they should practice CDC guidelines to prevent COVID-19 infection, then, the recent backlash against COVID-19 in the rural areas could have been

avoided. Without doubt, COVID-19 flourishes in indoor environments where people spend long periods of time staying close to each other. This makes it necessary for indoor activities such as wedding ceremonies, club meetings, churches, markets, and other areas where people gather under one roof to be avoided so as not to contract the infection. If social distancing is maintained, then these outdoor activities will not pose much risk for contracting COVID-19 virus.

## CONCLUSION

Therefore, the fact that these health care workers working in the rural areas, experienced tremendous challenges in COVID-19 prevention, necessitates doing everything possible to ensure that the cooperation of all is achieved in observing CDC guidelines. This will enable the health workers to provide essential health care services that will respond to this crisis and save lives. Based on the findings, individuals in the rural areas need concentrated health education on disease prevention so as to reduce the myths that are fueling COVID-19 surges. This entails that health workers should understand the barriers that affect behavioral change and address them so as to achieve behavior change without resistance.

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