FOOD INSECURITY IN POST COVID-19: THE ROLES OF HOME ECONOMICS

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Abstract
This research investigated the influence of food insecurity in the post-corona virus era, and the perceived issues that came with it. The Government of Nigeria decided to impose and implement limited mobility or lockdown due to the unexpected coronavirus (COVID-19) pandemic outbreak and its infectious transmission rate. The government's order for a lockdown had a severe influence on people's lifestyles and welfare, particularly with relation to food security and the contribution of home economics activities to appropriate dietary needs. The study was guided by two research questions and one hypothesis. Through the use of straightforward random sample methods, a total of 162 respondents were included in the study. This was done to check for the prevalence of depression symptoms related to insufficient feeding that happened during the lockdown and movement restrictions. This brought about shortage of food, lack or unavailability and insufficient food production and its impact on Post-Covid -19 homes and families. The study's findings include an increase in consumers' need for food, a shortage in food supply that results in insufficient feeding in homes, and a rise in food shortage levels in various families in the post-Covid -19 period. It was observed that the pandemic had impact on food security in the form of food chain disruption, unequal food conditions, and uneven food distribution. The effective adoption of more comprehensive and focused social protection programs was advised in order to increase everyone's access to wholesome foods, even in times of need or disaster. Governmental bodies should also make sure that the food system is effective and that, in terms of sustainable food security, national legislation should be duty bound to recognize and incorporates individuals' rights.

Keywords: Home Economics, Food Insecurity, Lock-Down, Pandemic, Covid-19

Introduction
The coronavirus suddenly spread over the world, having a detrimental impact on the international economy. The serious acute respiratory syndrome coronavirus COVID-19, which is causing the pandemic, was initially identified in China, in 2019. Unexpectedly, the virus started to spread, and it suddenly turned into an unseen foe for homes throughout the world, including those in Nigeria. In February 2020, Nigeria reported the first ever index case, an Italian expat who had travelled there for consulting services as the virus spread on earth. Only three instances were reported in Nigeria as of March 16. However, the number of cases went up to twenty-two by March 21, 2020. Therefore, the Nigerian parliament implemented various measures in an effort to stop the virus from spreading throughout the nation. By March 24, lockdown in certain states, restrictions on movement (apart from those necessary for providing important services like food, security, health supplies, etc.), a ban on foreign and domestic travel, social and religious gatherings, the closure of land borders, a "stay at home" directive for government employees, the closure of schools, large markets and shops (apart from those selling food and health-related items), and physical and social seclusion were all in effect.

The COVID-19 pandemic, which began spreading quickly and widely in late 2019 and has affected food security and nutrition both internationally and locally, has had a significant impact. The crisis is still having an impact on food systems and poses a danger to people's access to food through a number of dynamics (Altieri and Nicholls, 2020). Inside the wake of shut downs brought on by the worldwide
medical crisis, the world's society experienced not only significant disruptions to food systems but also a significant global economic slowdown and a recovery that was incredibly uneven as new strain variants circulated and posed new risks to crop production and food security. However, these crises led to reduced earnings, higher and more unpredictable food costs, and weakened the right to food, delaying attempts to achieve the Sustainability Goal (SDG) “No hunger.” (Arouna, Soullier, del Villar, & Demont, 2020). The scenario resulted in a severe dearth of essential food products and significant levels of uncertainty. The terrible consequences of the COVID-19 disaster are still being felt today. The virus is already circulating for more than 2 years, and according to the majority of public health analysts, it will proceed to mutate and spread for at least a few more years (Scudellari, 2020). This indicates that food insecurity will keep going to have some negative consequences for families for just a longer period of time.

Such dynamics pose major hazards to food and nutrition security and bring to light several flaws in the food system. The shutdowns designed to limit the illness set off complicated patterns that led to a significant disturbance of food supplies and a sharp spike in hunger. Based on the latest numbers, as the global epidemic spread, up to 20 million more people may have encountered chronic undernutrition in 2020, and between 720 and 811 million more people may have experienced chronic hunger. In 2019, there were an estimated 650 million people living with chronic hunger. Additionally, 320 million more people now experience moderate or severe food insecurity, with almost one in three people now experiencing hunger at these levels (FAO, 2021). The subsequent socio-economic effects of the epidemic and its aftermath have caused a dramatic decline in food security in over 20 nations, including Nigeria.

Before or prior to COVID-19, 11% of families in Nigeria suffered food shortages; of these, about 12 million children (8.8% of all children countrywide) were so affected. Coleman-Jensen, Guthrie, Ralston, and Treen. (2017). 15.2% of kids under the age of 7 do not consistently have access to a food that meets their nutritional needs. According to estimates, COVID-19 will cause a dramatic increase in food insecurity. The epidemic has had a tremendous impact on the food industry. Higher unemployment brought on by pandemic-related jobs lost, combined with disruptions in the food system have forced people to choose between paying outrageous prices for food or being unable to buy it at all. Generally speaking, lockdown procedures perhaps have made it impossible to obtain perishable commodities, especially fresh fruit. Leung and Wolfson (2020).

It is interesting that the National School Feeding Program in Nigeria serves almost 11 million students. However, while children became prone and more susceptible to food insecurity by school closing up, a new route to the already-existing food crisis was created. According to a different research, kids were reportedly eating more snacks than healthy items during the pandemic lockdown. Persistent, awakening is required because of the predicted rise in the frequency of food insecurity during the COVID-19 pandemic and after COVID-19 in the Nigerian region. According to Ashby (2002), it is crucial to concentrate on providing healthy diets for at-risk groups, such as low-income families with children. The National Institutes of Health has designated this connection as a top research priority. The corona virus pandemic added a new dimension to food insecurity, which is likely connected to obesity because of a diet heavy in processed, nutritional, and energy-dense foods (NIH).

The government can work on the following initiative to stop food insecurity. Governments must offer more agricultural palliatives, both at the national and subnational levels. In particular, this may be in the form of free or inexpensive agricultural extension services, the distribution of basic farm tools at heavily discounted costs, or the provision of enhanced seedlings for free. Budgetary resources for agriculture are being increased at the national and local levels. Additionally, the size of strategic marketing food stores will be increased. By improving the operating effectiveness of the current strategic food reserves, it would be possible to reduce the excessive food waste that occurs in Nigeria as a result of insufficient storage facilities. By doing this, the government’s commitment to achieving food security will be strengthened, agricultural export competitiveness will be increased, and pricing stability of domestic food products will be ensured.
Purpose of the Study
The study basically assessed the impact of food insecurity in post Covid-19: the role of home economics during and post pandemic. The specific objective of the study was to:

1. Examine the level of food insecurity in the family in post Covid-19.
2. Find out the impact of post Covid-19 on food accessibility.

Research Questions
The following research questions were raised to guide the study

1. What is the level of food insecurity in the family in post Covid-19?
2. What are the impacts of post Covid-19 on food accessibility?

Hypotheses
The hypothesis of this study is stated in the null form as given below:

Ho: There is no significant relationship between the level of food insecurity and the family in post COVID-19

Level of Food Insecurity in Post Covid-19
Absence of sufficient access to wholesome food, which is essential for an active life and proper growth, is known as food insecurity (World Food Programme, 2017). Since the advent of COVID-19, several researches have been conducted to ascertain its socioeconomic effects. Each of these studies have demonstrated a detrimental and considerable impact, particularly the impact of lockdown regulations and their long-term effects on the national economy and the way of life for families across the nation. In her assessment of the effects of the coronavirus pandemic on poverty in developing nations, Diwakar (2020) predicts that due to insufficient household and national coping mechanisms, the vulnerable poor would experience increased levels of poverty and food insecurity. Chronopoulos, Lukas and Wilson, (2020), observe an increase in consumer spending following the announcement of the lockdown and significantly decline during the lockdown. This suggests that because of the lockout, consumers stocked up on food and cut back on their expenditures. Additionally, the results demonstrate that customer reaction to different items even during shutdown in Nigeria varied. According to Coibion, Gorodnichenko, and Weber (2020), 31% less was spent on apparel and vacation during the epidemic shutdown, while 50% of consumers lost their income and wealth. According to Stanciu (2020), limiting people's freedom of movement as a way to protect their health had a significant impact on their daily activities, reduced the availability of food and raised prices, made it difficult to evaluate the financial markets, and consequently reduced people's purchasing power. Andersen, (2020) use the transaction data from a large bank in Scandinavia to estimate the effect of social distancing laws on consumer spending, and find a 25% drop in consumers’ spending as a result of the COVID-19 social distancing laws. Similar study by Chen, Qian and Wen (2020) finds a negative response of consumption to COVID-19 pandemic.

Also, Baker et al, (2020) use financial transaction data drawn from household personal website to investigate the response of consumption and consumer spending during the COVID-19 pandemic, and find a sharp reduction in home economics and household spending due to the pandemic related-policy in the U.S. Watanabe (2020) in his assessment of consumption and prices during the COVID-19 and the earthquake in Tohoku, find that prices increased by 0.6 and 2.2 percent respectively resulting in a decline in consumption.

Causes of Food Insecurity During the Pandemic Period
A number of overlapping and reinforcing changes have emerged that are affecting food systems and causes food insecurity and nutrition thus far, including: disruptions to food supply chains; loss of income and livelihoods; a widening of inequality; disruptions to social protection programmes; altered food environments; and uneven food prices in localized contexts (Klassen and Murphy, 2020).

Supply Chain Disruptions
There have been major disruptions to food supply chains in the wake of lockdown measures, which have affected the availability, pricing, and quality of food, lingering till long after the pandemic (Barrett, 2020). The closure of restaurants and other food service facilities led to a sharp decline in demand for certain perishable foods, including dairy products,
potatoes and fresh fruits, as well as specialty goods such as chocolate and some high value cuts of meat (Lewis, 2020)

Nigeria was not exempted from the disease outbreak, shutdowns that spread to numerous nations in March–May 2020. As borders closed and demand for certain food items dropped, food producers reliant on selling their crops via distant export markets were highly vulnerable, particularly those producers focused on perishable food and agricultural products, such as fresh fruits and vegetables or specialty crops, such as cocoa (Clapp, 2020). In the early months of the outbreak of COVID-19, some food exporting countries also imposed export restrictions on key staple food items like rice and wheat, which led to some disruptions in the global movement of these staples as well as higher prices of these crops relative to others (Laborde et al., 2020). Certain countries, including those with high prevalence of food insecurity like Nigeria, are highly dependent on imported food and on commodity exports (FAO, 2019), which may make them particularly vulnerable to these types of supply chain disruptions.

Localized food price increases
Due to the country-wide lockdown regulations, local food, for instance, was negatively impacted and costs surged high. This led to arbitrary pricing where food is available for purchases. As the virus spread, price patterns radically changed, with food prices skyrocketing and staple items becoming unaffordable, particularly for low-income workers who could not afford to stock huge quantities of food to lessen the harsh consequences of the entire lockdown regulations. While those with a knowledge of home economics were able to survive on what they could find nearby and aid as many people as they could by teaching different families how to prepare new menus using readily available food items in order to lessen the negative effects of the pandemic on food production and supply chains. Many persons who possess knowledge of Home Economics and related disciplines had privileges of converting food and nutrition skills they possess into wealth making ventures. They turned their ideas into productive use, making brisk income from food preparation and delivery services from food items that could be sourced for within reach in their localities.

Methodology
A descriptive research study approach was chosen for this study. The study was guided by two research questions and one hypothesis. In this study, 162 respondents in their homes were utilized. Individuals in Ovia North East Local Government Area of Edo State were chosen at random from family households. A self-created survey titled "Food Insecurity in Post-COVID-19 and the Roles of Home Economics" served as the data collecting tool (FIPCRHE). The instrument's components, which were divided into sections A and B, were organized according to a four-point scale. To authenticate the instrument, it was pilot tested with participants who were not part of the research population. After a two-week break, the test retest produced a reliability index of 0.81. The findings of the study were then gathered using the instrument. The mean and standard deviation were utilized to analyze the data and provide answers to the study objectives. The conclusion was that any item with a mean greater than the benchmark value of 2.50 indicates agreement, and any item with a mean less than the benchmark value of 2.50 indicates disagreement. The t-test was used to assess the hypothesis, with a 0.05 level of significance.

SECTION A: Demographic Data

Table 1: Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>74</td>
<td>46.3%</td>
</tr>
<tr>
<td>Female</td>
<td>88</td>
<td>54.1%</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100.0</td>
</tr>
</tbody>
</table>
From table 1 above, it can be seen that 88% of the respondents are female while 74% of the respondents are male. This shows that majority of the respondents are female.

SECTION B

Research Question 1: What is the level of food insecurity in the family in post COVID-19?

Table 2: the level of food insecurity in the family in post COVID-19

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>N</th>
<th>MEAN</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction in food supply in post covid-19</td>
<td>162</td>
<td>3.14</td>
<td>.652</td>
<td>Accepted</td>
</tr>
<tr>
<td>Increase in food supply chain in post covid-19</td>
<td>162</td>
<td>2.04</td>
<td>.633</td>
<td>Rejected</td>
</tr>
<tr>
<td>Increase in consumers spending during and after the lockdown</td>
<td>162</td>
<td>2.88</td>
<td>.730</td>
<td>Accepted</td>
</tr>
<tr>
<td>Lots of people lost their jobs and homes after the pandemic</td>
<td>162</td>
<td>3.44</td>
<td>.569</td>
<td>Accepted</td>
</tr>
<tr>
<td>Spending on travelling and clothing declined since covid-19 and after the pandemic</td>
<td>162</td>
<td>3.56</td>
<td>.498</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Grand Mean: 3.02, SD: 0.62, Decision: Accepted

Criterion mean > 2.50

Data in Table 1 shows that all the items met the means score standard of 2.50 and were accepted except item 2 which was rejected. This means that the following are the level of food insecurity in the family in post COVID-19, reduction in food supply, increase in consumers, spending during and after the lockdown, lots of people lost their families and homes during and after the pandemic, declined in the level of spending on travelling and clothing after the pandemic.

Research Question 2: What are the impacts of COVID-19 on food accessibility?

Table 3: impacts of covid-19 on food insecurity

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>N</th>
<th>MEAN</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disruption to food chain</td>
<td>162</td>
<td>3.28</td>
<td>.500</td>
<td>Accepted</td>
</tr>
<tr>
<td>Loss of income and livelihood</td>
<td>162</td>
<td>3.34</td>
<td>.476</td>
<td>Accepted</td>
</tr>
<tr>
<td>Uneven food environments</td>
<td>162</td>
<td>3.52</td>
<td>.501</td>
<td>Accepted</td>
</tr>
<tr>
<td>Altered access to food environments</td>
<td>162</td>
<td>2.96</td>
<td>.361</td>
<td>Accepted</td>
</tr>
<tr>
<td>Disruption to social protection</td>
<td>162</td>
<td>3.13</td>
<td>.742</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Grand Mean: 3.25, SD: 0.52, Decision: Accepted

Criterion mean > 2.50

The information in Table 2 demonstrates that every item was accepted since it fulfilled the means score criteria of 2.50. The effects of COVID-19 on food accessibility, food chain disturbance, loss of livelihood and lifestyle, unequal food environments, changed access to food environments, and disruption of social protection are listed as COVID-19 impacts.
Hypothesis

**Ho:** There is no significant relationship between the level of food insecurity and the family in post COVID-19

Table 4: t-test analysis of the difference between the mean scores of the level of food insecurity and the family in post COVID-19

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>( \bar{x} )</th>
<th>SD</th>
<th>Df</th>
<th>T</th>
<th>Sig(2-tailed)</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Insecurity</td>
<td>102</td>
<td>2.82</td>
<td>.383</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td>60</td>
<td>2.65</td>
<td>.868</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to Table 4, there is a strong correlation between the family’s level of food insecurity and COVID-19. The p-value is 0.000, which is less than the predetermined value of 0.05, according to the preceding Table. The null hypothesis is therefore disproved.

Discussion of findings

In Table 2, it was revealed that the following indicated the level of food insecurity and the family in post COVID-19, which include shortfall in food supply leading to inadequate feeding in homes, increase in consumers’ quest for foods and other necessities, rise in levels of food insecurity in homes and families in post Covid-19. It was found that disruption to food chain, uneven food environments coupled with uneven food distribution are impacts of COVID-19 on food security. From table 3 it was seen that the following are the impacts of COVID-19 on food accessibility, disruption to food chain, loss of income and livelihood, uneven food environments, altered food environments, disruption to social protection. This is supported by (Klassen and Murphy, 2020; Clapp and Moseley, 2020; Laborde *et al.*, 2020). According to Table 4, there is a strong correlation between the family’s level of food insecurity and COVID-19. The p-value is 0.000, which is less than the predetermined value of 0.05, according to the preceding Table. The null hypothesis is therefore disproved.

Recommendations

The following recommendation were made for the study:

- More robust and targeted social protection programs should be implemented by all stakeholders, including investors, shareholders, government and non-governmental organizations, communities, families, and individuals, to increase access to wholesome foods for everyone at all times, including during emergencies and crises like pandemics and the aftermath.
- Ensure that the food system is effective, and that national legislation should be duty bound to recognize and incorporates...
individuals’ rights over access to foods; encourage and enforce adherence to accepted standards of living.

References


