The COVID-19 pandemic and insecurity: the furiousness in Nigerian communities

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ABSTRACT
The COVID-19 pandemic has generally induced mass panic and threat across the world, including Nigeria, due to the perceived uncertainties, fears and insecurities in the communities. Based on this backdrop, this study examined COVID-19 pandemic and insecurity in Nigeria. Convenience accidental sampling was used to administer 1671 copies of a questionnaire on residents through an online/electronic survey. Data collected were analysed descriptively and inferentially. Findings revealed that the spike in crime during the COVID-19 lockdown period is relatively higher than usual with disruption of public peace, theft and rape accounting for the most prominent crime. Meanwhile, most respondents experienced crime incidence between 6 pm and 12 midnight. Ironically, idleness, poor spatial arrangement/planning, poor governance and poverty were the major catalysts for the crime spike during the lockdown, while fear-of-fear (phobophobia) and declined socio-economic capacity were predominant effects of crime experienced. The Fisher’s exact test results revealed a significant relationship between the surge in crime and COVID-19-restrictive measures. The study concludes that the insecurities during lockdown periods have caused both temporary and permanent physical and psychological havoc; hence, it recommends quick advancement of the built environment with smart security measures and social supports for the citizenry during the pandemic.

1. Introduction
The growing and worsening rate of insecurity in almost every nation of the world has always been a global concern. In this context, terrorism, banditry, extremism, and political and ethno-religious violence, among others, are ranked issues compromising
safety and security most especially in urban centres, leading to wanton destruction of the economy, properties and lives. Riccardo (2014) opines that insecurity is the second most serious problem in the city of Barcelona after problems related to unemployment and working conditions. However, Di Saverio et al. (2020) noted that the COVID-19 pandemic has not only overstressed health-care system globally but has also transformed medical care systems as patients having diseases and needing emergency treatments and surgery have been increasing astronomically, posing additional challenges with substantial changes in the health delivery procedures. However, the aftermath of the failure of various measures to containing the adverse impact of infectious diseases and pandemics is now contributory to the worsening pace of insecurity in most urban centres, particularly in developing countries.

Specifically, infectious diseases have remained a major cause of death and threat since time immemorial aside from being the source of misery to human and community development and well-being and public governance across the globe at different periods of occurrences. Besides the so-called ‘Spanish flu’ of 1981, diseases such as Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS), malaria, typhoid and tuberculosis have always been a global health burden to the human race. However, the sudden emergence and spread of coronavirus (COVID-19) has become a serious source of concern and panic since its outbreak in Wuhan, China, in late 2019, and it has rapidly spread to other parts of the world through physical contacts and mobility of people, goods and other supplies through various transportation means, most especially public transportation (Ozili, 2020; Xiong et al., 2020).

As a result, countries across the globe, most especially China (Wang, Pan et al., 2020a), the Philippines (Tee et al., 2020) and Vietnam (Le, Dang et al., 2020), have been in serious panic, with the full-blown epidemic of the COVID-19 and its contagious spread through human-to-human contacts in the public places, particularly in urban areas (Xiong et al., 2020). Its subsequent declaration on 11 March 2020 as a pandemic by the World Health Organization (WHO) has undoubtedly increased the alarming rate of its sudden catastrophic surge globally (Wang, Chudzicka-Czupala et al., 2021; Wang, Tee et al., 2021; Xiong et al., 2020). Globally, the COVID-19 infection rate is fast-growing with over 8 million cases, 430,000 deaths within the first three months of its declaration as a pandemic, thus obviously and continuously challenging the health professionals, and consequently throwing the world population into a panic caused by anxiety (WHO, 2020). However, it is not an understatement that the global and national economies are adversely affected by this pandemic. Tran, Nguyen et al. (2020) affirmed that the coronavirus pandemic has greatly reduced households’ income and produced negative impact on the quality of life of the citizen. Hence, efforts at containing its further spread necessitated several measures, most especially the lockdown (Le, Dang et al., 2020), use of face masks (Wang, Chudzicka-Czupala et al., 2020) and social distancing (Tran, Nguyen et al., 2020), among other measures by various governments across the world (Tan, Nguyen et al., 2020; Wang, Pan et al., 2020a 2020a). Importantly, many countries have taken the bold step of either of quarantine or isolation, use of face masks and other lockdown measures to control the spread of COVID-19 (Tan et al., 2020; Wang, Chudzicka-Czupala et al., 2020; Le, Lai et al., 2020). These measures have obviously been resourceful in minimizing and containing the spread and effect of the viruses in various economies. Despite the observed significance, it has and is still adversely eroding
socio-economic activities and has been leading to major socio-economic contractions, disruptions and complete damage that are undoubtedly affecting industries, businesses and companies severely in various countries of the world (Boissay and Rungcharoenkitkul 2020; Dang et al. 2020; Tan et al. 2020; Tran, Vu et al., 2020).

In this vein, Nicola et al. (2020) observe that the COVID-19 pandemic sparked fears of an impending economic crisis and recession as social distancing, self-isolation and travel restrictions, etc., have forced a decrease in the workforce across all economic sectors and caused many job losses. For example, Tan et al. (2020) observed that the coronavirus pandemic has not only brought about transformational changes such as encouragement of remote working, flexi-work, pay and incentive cuts, and amendments to how the employers deliver their work obligations and performance, but has also caused a dreadful conundrum for the workforce returning to work and home as well as unprecedentedly ignoring the prevalence of anxiety, depression, stress and insomnia among the workforce including employees and employers. Tran, Nguyen et al. (2020) noted that the COVID-19 pandemic has adversely impacted the economic well-being and quality of life of Vietnamese. Wang, Pan et al. (2020a) observed that the coronavirus pandemic has seriously posed challenges to the psychological resilience of inhabitants in China and across the global population. Tee et al. (2020) revealed that the COVID-19 pandemic has posed a global threat to societies’ mental health including that of the Philippines. However, both the developed and developing countries across the world such as Britain, the United States, Germany, France, Italy, Australia, Vietnam, China and the Philippines, among others, embrace lockdown measures to stem the spread and effects of the coronavirus. Also, Nigeria, Ghana, South Africa and many other African countries joined in the use of lockdown measures in which all movements of vehicles and people are immediately restricted except those in essential services.

In Nigeria in particular, Ogun State, Lagos State, and the Federal Capital Territory, Abuja, were totally locked down with social distancing to keep people within their homes by the federal government, while other state governments equally embraced the containment measures, although with slight modifications in some instances, including from that of the federal government. Like other cities in the world, several markets in Nigeria reacted to the pandemic as a number of industries, organizations, multinationals and daily income earners were affected by the shock and disaster of the pandemic. While it is anticipated that this lockdown, either full or partial, would assist greatly in minimizing the rate of transmission of the rampaging virus across the country, it is surprising that the lockdown measures, in particular, ignited a series of panic-buying and stockpiling of food products, as well as security breaches as denoted by fear and crime-related incidences most especially in many cities across Nigeria.

Meanwhile, since the end of the Nigerian civil war of 1967 and 1971, and the June 12 political crisis, the country has been battling with different and related criminal activities such as kidnapping, banditry, herdsmen clash and insurgency, among others. Also, Zubairu (2017) noted that the Boko Haram insurgency, which involved the massive destruction of lives and properties of numerous communities, towns and villages across the northeastern states of Adamawa, Borno and Yobe States as well as the Niger Delta militancy which involves deliberately hatched plans of crippling the oil industry and by extension, the Nigerian economy through vandalism of crude oil pipelines and associated facilities, are perhaps the most profound contemporary development
challenges Nigeria is dealing with. However, the COVID-19 lockdown measures brought about another dimension into the country by compromising urban safety, neighbourhood risks and residency safety in addition to compounding insecurity situations in many parts of the country.

In this respect, it is worrisome that residents in many communities in Nigeria find it difficult to sleep peacefully at home, but rather turned themselves into night-guards and security outfits for their communities and families due to unlawful infiltrations into their neighbourhoods by uninvited guests who used the lockdown measures to commit infamous atrocities. As past epidemics had long-lasting effects on economies through illness and loss of lives (Boissay & Rungharoenkitkul, 2020), efforts have to be channelled towards minimizing the socio-economic consequences that the widespread COVID-19 and its containment measures on neighbourhoods and people’s safety. This becomes expendable due to pockets of incidences recorded in various parts of Lagos, Ogun, Oyo and Osun States as well as other parts of the country even in the daylight as well as the night. Also, the notion that crime breeds destruction of lives and property aside from fear of insecurity in many Nigeria cities (Agbola, 1997) is now replaced by the COVID-19 experience and containment measures in the country as some disgruntled elements embraced crimes and breached safety protocols in cities and urban centres by unleashing terror on members of the public who are genuinely complying with national lockdown measures by the government to contain the spread of coronavirus across the country. However, the efficacy of these curtailment measures gave the true picture of how Nigerian cities and other emerging urban communities are susceptible to insecurity and public fear of crime amidst national lockdown. Meanwhile, the magnitude of these socio-economic consequences on different societal groups as well as households in Nigerian communities occasioned by the emergence of the COVID-19 pandemic and the introduced national containment measures has not been fully understood.

Based on the foregoing, the study examined the relationship between COVID-19 pandemic and insecurity in Nigerian communities. The objectives pursued were to identify the nature and spatial dimension of insecurity and crimes attributes during the lockdown; examine the causes and effects of insecurity due to pandemic curtailment measures; and examine the remedies and implications for better security of residents’ lives and properties and community development and well-being during and post pandemic. Hence, addressing these research objectives gave the rationale to understand the influence of the COVID-19 pandemic on insecurity and crime incidence, leading to the emergence of chaos in Nigeria. In other words, this study hopes to provide empirical evidence of the influence of the COVID-19 national lockdown measures on the insecurity and crime prevalence in Nigerian communities; inform policymakers of the urgent need to take timely and appropriate measures and actions to mitigating the consequences occasioned by the national lockdown measures at present and future times; as well as proffering sustainable strategies to ensuring socio-economic well-being and health of the general populace. Nevertheless, for logical understanding, this study was structured into five sections. Following the introductory section is the conceptual underpinning and a brief literature review. Section 3 focuses on the study area and methodology. It gives an insight into the study area, data sources and collection methods, sampling procedure and methods of data analysis. Section 4 presents the analysed data and discussion of findings, while Section 5 concludes on the way forward.
2. Conceptual clarification and brief literature review

2.1 Safe City Concept

Urban crimes are global phenomena traversing across international borders, and concerted efforts towards curbing the trend have been intensified by governments of different nations of the world through different measures. Generally, the issues of security and protection of lives and properties have always been in the vanguard of activities of scholars, government and other international organizations. The Safe City Concept is a human-centred initiative and optimizing performance for all public services in making a city safe. Most importantly, the United Nations-Habitat pioneered the Safe/Safer City Concept and programmes in 1996 as a response to the growing violence and feeling of insecurity that city dwellers face daily across the world. As a result, Safer Cities programmes/projects are conceived and implemented in order to build safe communities to support development of inclusive mechanism and processes through prevention policies against the high level of murder, assault, rape, robbery and other organized crimes. Many cities across the world including in Africa have made policies to embrace the Safer Cities projects such as Durban, Abidjan, Antananarivo, Yaounde and Nairobi (Agbola & Ntamark, 2017).

The Safe City Concept, according to Rozhan et al. (2015), influences the situations of night-time activities (where night-time life and activities in cities can be a potential for crime, violence and anti-social behaviour), travellers and public transport users, since walking down the streets and using public transportation can certainly promote the feeling of fear towards crime, especially at crime-prone areas. People always need to keep an eye on their surrounding due to high risk of thefts, pickpockets, kidnapping, etc., and community (through the identification of hotspot for crime areas and suitable location of CCTV and improvement of physical environment). However, the unexpected rise in urban insecurity has been associated with aggravated poverty that has become entrenched in most urban centres of many African nations and has undoubtedly increased the fear of crime among residents as the fear for personal safety especially when alone and in the dark which has been keeping residents in apprehension during the current pandemic. Hence, there is a need to restructure and reappraise urban and neighbourhood safety architecture in cities and other urban centres to integrate the adverse spread effect of pandemic containment measures in the future. Therefore, techniques of combating the soaring wave of urban violence and crime have to be reviewed considering the rapidly increasing cases of the COVID-19 pandemic and its containment measures which have made all income groups (medium, low, high) and daily income earners more susceptible to various forms of insecurity as denoted by violent crimes, robbery and disruption of public peace both in the daytime and night-time in the country.

2.2 Literature review

The issues of security and protection of lives and properties have always been in the vanguard of activities of scholars, government and other international organizations in recent times. Urban insecurity has become one of the most pressing issues affecting several countries, in general, and cities, in particular, as the high rate of insecurity is
synonymous with cities in recent times. Essentially, Rozhan et al. (2015) note that the upsetting number of crime occurring in the cities which evokes the fear of crime among civilians is becoming unprecedented. As a result, efforts have always been intensified to improve the living standards of the people as well as global and national economy with the view to translate its impact into the well-being of the people.

Generally, conflict and war have long been accepted as significant constraints to development, while violence in ‘non-conflict’ situations has been increasingly recognized as core security and development priority. Moser and Rodgers (2005) are of the view that violence issue is particularly critical in contexts of rapid social change, and often most evident in ‘failing’ or ‘crisis’ states. Zubairu (2017) observes that Nigeria since the end of the civil war has been wallowing in various serious violence, socio-economic threats incidents and other social vices that include the Boko Haram insurgency, the armed Fulani herdsmen menace, kidnapping gangs, Niger Delta militancy and various others. These vices no doubt hinder the socio-economic development of Nigeria.

In addition, Nigeria, according to Oguntunde et al. (2018), is known for major crimes which includes rape, kidnapping, murder, burglary, fraud, terrorism, robbery, cyber-crimes, bribery and corruption, money laundering, etc. In addition, Ukoji et al. (2018) give the statistics of crime-related outputs in the country with the figures showing that there was a 1.4% increase in the number of violent deaths in Nigeria in 2018, while fatalities increased from 10,515 in 2017 to 10,665 in 2018. The main causes of violent deaths in the country were crime activities, political issues, land issues, religious issues, cattle grazing and road accidents aside from the fact that Boko Haram conflict killed less than the 2829 in 2017 and 2135 in 2018, cult-related killings accounted for 453 deaths in 162 incidents and 238 people were killed in 76 kidnapping incidents.

However, the occurrence of the COVID-19 pandemic makes public health safety and global readiness for eventuality and predictability to be in absolute doubt. In a bid to justify the effects of the COVID-19 pandemic on the health-care system and well-being of patients, Di Saverio et al. (2020); Benitez et al. (2020) observed that the COVID-19 pandemic has threatened and reduced the staff strength to a minimal level of care treatments to patients with triage of full medical treatment in all patients and led to change in the medical routine procedure leading to cancellation and deferment of out-patients visits and encouragement of telemedical or telephone consultation as well as concomitant exposure of individuals and patients with special set skills needed to preserve health status and improve the quality of life. This, according to Taubenberger and Morens (2006), is a result of the fact that the world experienced a highly deadly Spanish influenza pandemic between 1918 and 1919 which caused the death of approximately 50 million people worldwide. Being deadly, and with variability and widespread in humans, birds, swine and other mammals, influenza viruses place a heavy social and economic burden on populations globally (Gasparini et al., 2012; Humphreys, 2018). As a result, influenza epidemics and pandemics carry a heavy socio-economic burden as hospitalization and treatment are more often necessary in high-risk patients, such as children and elderly. The 1918 pandemic, according to Tsoucalas et al. (2016), infected between 3% and 5% of the world’s population including remote Pacific Islands and the Arctic. The estimated costs of epidemics have always varied significantly based on severity and containment measures.
Importantly, the COVID-19 pandemic is not only the most serious global health crisis since the 1918 Great Influenza (Spanish flu) but also is set to become one of the most economically costly pandemics in recent history. Unlike previous pandemics, Boissay and Rungcharoenkitkul (2020) are of the view that the globally synchronized lockdowns and trauma of financial markets reinforce into an unprecedented economic meltdown occasioned by COVID-19. Additionally, the COVID-19 pandemic undoubtedly affects all major world economies as it has led to massive disruption of the interconnected world economy through global value chains, which accounts for nearly half of global trade. Aside from abrupt falls in commodity prices, fiscal revenues, foreign exchange receipts, foreign financial flows and travel restrictions, there was also a massive decline of tourism and hotels and frozen labour market, among others (African Union, 2020). Shammi et al. (2020a) undertook the strategic assessment of the COVID-19 pandemic in Bangladesh through a comparative lockdown scenario analysis, public perception and management for sustainability using classical test theory, principal component analysis, hierarchical cluster analysis, Pearson’s correlation matrix and linear regression analysis to analyse the study objectives. The study reveals a strong association among the lockdown scenarios and response strategies formulated, and it establishes that although death and infection rates would increase if the Bangladesh government withdraws the existing partial and full lockdown among other containment measures, these measures, particularly the full lockdown, have hampered formal and informal businesses, the economy and the education sector severely. In a bid to justify the latter objectively, the study of Shammi et al. (2020a) further revealed that there is a strong association between the loss of livelihood and unemployment rate which increased due to the shutdown of businesses occasioned by the pandemic lockdown measures.

Likewise, Bodrud-Doza et al. (2020) used a perception-based analysis to determine the influence of people’s psychosocial on socio-economic crisis amidst the COVID-19 pandemic in Bangladesh. The study reveals a positive association between COVID-19 containment measures and the fear of losing one’s own or a family member’s life. It is noteworthy that the study of Bodrud-Doza et al. (2020) attributes the influence of containment measures on psychosocial life to the lack of adequate health-care treatment. Hence, people would undoubtedly experience mental and economic stress more during lockdown measures. Similarly, Shammi et al. (2020b) revealed that not only did the spread of the COVID-19 pandemic influences numerous socio-economic crisis, it has also caused obvious human and urban stress, particularly in resource-limited settings. However, studies such as Hague (2020), Rahaman et al. (2020) and Shammi et al. 2020a, among others, have revealed the socio-economic consequences including insecurity challenges occasioned by the various strategies which have been deployed to contain the spread of the pandemic. Hague (2020), Rahaman et al. (2020) and Shammi et al. (2020b) also opine that the preventive measures such as the implementation of mobility restriction and lockdowns (partial or total lockdown) increase mass awareness through social media and satellite TV channels, and the enforcement of social distancing have brought about an unprecedented increase in socio-economic issues such as depression, insomnia, loss of lives and properties, disruption of public peace and internet fraud. These socio-economic issues and the national economic loss have also forced governments both in developed and developing nations to deploy more of their reserved
resources to secure more security measures, additional health workers and medical facilities to reduce the virus infection rates.

Nevertheless, the effect of these efforts such as the national lockdown, social distancing, the ban on large gathering and mobility restrictions put in place to curtail the unprecedented growth and rapid instant spread of the global pandemic in Nigeria has resulted in residents experiencing massive insecurity and crime-related incidences including rape, kidnapping, murder, burglary, fraud, terrorism, robbery, bribery and corruption, leading to serious disruption in their socio-economic, psychological and environmental well-being most especially in urban areas across the country. However, the resultant effects of these curtailment measures gave the true picture of how Nigerian cities and other emerging urban communities are susceptible to insecurity and public fear of crime in the midst of national lockdown and mobility restriction. Meanwhile, the magnitude of the socio-economic consequences on societal groups and households in Nigerian communities due to the emergence of the COVID-19 pandemic and the introduced national containment measures have not been fully understood. Hence, the rationale for this study.

3. Materials and methods

3.1 Study area

Nigeria is undoubtedly a vast country located between longitude 3°E–16°E and latitude 4° N–14°N and with territorial coverage of over 910,768 km² of total area, 13,000 km² of water and 853 km² of coastline (FGN, 2007). The country maritime has 200 m depth of the continental shelf, and 200 nautical mile exclusive economic zone with territorial sea consisting of 12 nautical miles. With varying climatic conditions, Nigeria is characterized by abundant natural resources and equatorial conditions in the south, tropics in the centre and arid in the north, while the southern lowlands merge into central hills with plateaus and mountains in the southeast while plains in the north. The human population in the country was put at a population of over 140 million in the 2006 population census result (FGN, 2007) and was projected to be over 200 million in 2020. With this territorial coverage and abundant natural and human resources that spread across her territory (Figure 1), efforts at minimizing the adverse effects of the COVID-19 pandemic and insecurity have to be broad and encompassing to ensure adequate protection of lives and properties of her citizen as well as her urban development towards the curtailment of the hazards and disasters experienced during lockdown period (Figure 1) as well as the attainment of meaningful and quality socio-economic, psychological and environmental well-being and peace in the country at large.

3.2 Study methodology

3.2.1 Research design

The attempt to scientifically understand the nature and spatial pattern of insecurity and crime ushered in by coronavirus lockdown measures as well as addressing its perceived effect formed the rationale to inquire and elicit from residents during this COVID-19-restrictive period. The study adopted the use of a cross-sectional research design using
a web-based or online electronic survey approach conducted from 31 March to 30 May 2020 few days after the declaration of the national lockdown across Nigeria by the federal and state governments in Nigeria. Importantly, people across various communities were told to stay indoors, businesses were shut down, offices and other public places were closed and only those on essential services and individuals requiring essential needs such as food and medicines were allowed to go and accomplish the tasks. No doubt, the essence of these measures was mainly to ensure adequate containment of the spread of the coronavirus pandemic in the country. Expectedly, various restrictive measures by governments hindered the physical questionnaire administration; hence, the shift to the use of online-based survey design and administration of research instrument in seeking answers to research questions. With this, an online electronic survey was used to collect and administer data on residents for this study, having understood its importance ahead of several other survey techniques including telephone interview, physical paper questionnaires, mail questionnaire, mixed-method survey and panel interview during an emergency (Oyesiku & Odugbemi, 2000). More so, online, electronic or internet survey has recently gained popularity in academic researches due to the attributed benefits that include low cost of conducting a survey, easy and fast response rate, convenience and free of social assaults, among others.

In other words, the criteria for respondents to participate in this study include (1) access to a functional mobile gadget with either Android or Apple (iOS) operating system, (2) access to the internet, (3) willingness to participate in the research, (4) dedication of about 20 min to answer the research questions, (5) willingness and...
readiness to answer the research questions without expecting remuneration for the time and data used during the questionnaire administration and (6) the decision that only completed questionnaire by the respondents would be included in the research. Nevertheless, the cross-sectional research design detailed the use of descriptive, explanatory and exploratory methods to gather and analyse the data collected based on the qualitative and quantitative approaches of this study.

3.2.2 Sample and sampling methods
Respondents were sampled through convenience accidental sampling technique, a non-probability sampling method also known as opportunity, grab and availability sampling technique, that involves taking a population sample that is close at hand, easy to reach contacts, only-possible-options and as the situation demands in a random selection manner rather than carefully determined and obtained sample from a well-known study population. This survey technique allows for the use of a one-time survey that invites and gives the right to all residents to participate from any part of the country who have access to the online invitation. Initially, the web-based questionnaire was designed and developed using Google Form and was piloted and validated by authors before the full-time data collection across Nigeria. Google Form, which is an open-source tool for data collection and submission through an online server designed for mobile gadgets, was used to develop an online-based form in line with the study objectives. In other words, researchers posted the developed and validated questionnaire and shared the research invitation to their relatives, friends, colleagues and other various social media platforms such as WhatsApp groups, Telegraph groups, etc., to access the questionnaire through smartphones, tablets and computers. The survey invitation was active for 2 months from the day of its first release (31 March to 30 May 2020). After 8 weeks of data collection, a total of 1671 accidentally sampled respondents attempted the survey, out of which 1267 respondents, an equivalent of 76%, were filtered, retrieved and used for the analysis. In other words, the total of 1267 completed copies of the questionnaire are regarded as valid copies, while 404 uncompleted equivalence of 24% of the total attempted questionnaire were filtered out and not included in the survey analysis. Thus, 24% of cases are not valid and this forms the basis of maintaining quality control of the research instrument.

3.2.3 Questionnaire design and ethics
The web-based structured questionnaire was designed and developed based on the research objectives. This instrument was structured into four sections. Following the first section which focused on the socio-economic and demographic characteristics of respondents such as location or living area, age, gender, marital status, family size, educational level, employment or occupational status and other factors. The second section inquires on the nature and spatial dynamics of insecurity and crime incidence prior and during the lockdown measures. The third section focused on the questions relative to the cause and effects of insecurity due to the pandemic containment measures imposed by the governments as well as the last section which dealt with questions related to the implications of insecurity experienced and possible strategies to upgrade better the security of citizens’ residents lives and properties and the community well-being as a whole. In other words, the questionnaire is designed in both open and close-ended format. The research instrument which took between 15 and 20 min to complete was first
3.2.4 Method of data analysis

The filtered and extracted data from the online survey were presented and analysed using both descriptive and inferential statistics. The descriptive employed the use of frequency percentage distribution tables and summation of weighted value (SWV), while the inferential statistics of Fisher’s exact test was used to test the study postulated hypotheses. The index analysis of the SWV employed the use of four-point Likert’s scale with three different forms of gradation value consisting of never (N = 1), rarely (R = 2), sometimes (S = 3) and often (O = 4); strongly disagree (SD = 1), disagree (D = 2), agree (A = 3) and strongly agree (SA = 4) as well as inappropriate (I = 1), slightly appropriate (SA = 2), appropriate (A = 3) and absolutely appropriate (A = 4). In line with Akanmu (2016) and Fasina et al. (2020), the SWV for each of the variables were obtained through the addition of the product of the number of responses to each rating of the variable identified and the respective weight value attached to each rating. This is expressed mathematically as thus:

\[ SWV = \sum_{i=1}^{4} X_i Y_i \]

where

- \( SWV \) = summation of weight value,
- \( X_i \) = number of respondents to rating \( i \)
- \( Y_i \) = the weight assigned a value (\( i = 1, 2, 3, 4 \)).

The relative mean index (RMI) for each variable was arrived at by dividing the SWV by the total number of responses, while the mean index value (MIV) is obtained by dividing the sum of RIM by the number of examined variables. In other words, the higher the RMI, the higher the level of effectiveness for the variable under consideration and this is expressed quantitatively as

\[ RMI = \frac{SWV}{\sum_{i=1}^{4} X_i} \]

Nevertheless, Statistical Package for Social Sciences (IBM SPSS version 21) was used for data presentation and analysis.

3.3 Hypotheses (presented in null form)

\( H_0: \) There is no significant relationship between the COVID-19-restrictive measures and the surge in insecurity and crime incidences.
$H_0$: There is no significant relationship between the residents’ socio-economic and demographic characteristics and the institutional violence experienced during the lockdown period.

4. Results

The salient insecurity issues and concerns that emanated across the country during the nationwide response to the COVID-19 pandemic lockdown are presented in this section. This section provides the analysis of responses and broad views of varying members of the society across the country on the pandemic and insecurity in Nigeria occasioned by the lockdown measures imposed by the government on 30 March 2020; the data were collected between March and May 2020.

4.1 Socio-economic and demographic characteristics of selected respondents

First, the socio-economic and demographic characteristics of respondents across the country are presented in Table 1 where it is observed that respondents are located and spread across various categories of settlements in the country. While almost half (50.2%) are located at state capitals, one-quarter (25.6%) are in various towns and 10.5% domicile within the jurisdiction of local government headquarters. The remaining 12.5% and 1.3% are found in the hinterland adjoining urban centres and rural areas, respectively. It is also interesting that states of residences of these respondents cut across the six geopolitical zones in the country as 13.4% is from the northeast zone, 10.5% from northcentral, 15.5% from northwest, 31.2% from southwest, 14.0% from southeast and 15.3% from south-south geopolitical zones with residents having a varying range of periods of residency. Accordingly, 11.7% has been living in their domain since birth, while 10.7% has below 5 years residency in their current geographical locations and 18.9% has been living in the area between 5 and 10 years. Also, more than one-quarter (28.3%) has spent between 11 and 15 years in the area, while less than a quarter (23.0%) has stayed between 16 and 20 years, and the remaining 7.3% has lived for more than 20 years in their present locations. This denotes that more than 11.7% of residents sampled has been living in their area for more than 5 years and, hence, is familiar with safety and security issues in the area of study.

The gender classification in the study area revealed that the male (60.6%) responded to the questionnaire than their female counterpart (39.6%). This might be unconnected to the pandemic lockdown and other physical movement restrictive measures which forced many males as the head of household to be at home and available for data gathering. Data on the marital status of respondents showed that only 10.9% are single, while more than three-quarter (81.4%) are married and the remaining 1.7% and 6.0% account for divorces and widow or widower, denoting that a vast majority of respondents are of matured ages with families to cater for. Further to this is the fact that respondents are characterized by the working-age population as only 2.4% of respondents are within 18–25 years of age, while 10.4% each are 26–35 years and 36–45 years. Also, almost half (26.2%) and less than half (23.3%) are 46–55 years and 56–65 years, respectively, aside from the remaining 23.3% whose ages exceed 65 years. There is a high literacy level among the respondents.
sampled across all the geopolitical zones in the country as only 3.4% has no formal educational qualification, while 8.5% has primary school-leaving qualification and more than a quarter (30.3%) has a senior secondary school certificate. The minimum levels of educational attainment of others are National Certificate in Education/National Diploma (11.9%), first degree/HND (31.8%) and postgraduate degrees (14.0%).

With respect to occupation characteristics, it is observed that a substantial number of respondents were engaged with socio-economic activities as only 6.7% is unemployed, 10.4% is a student and 4.4% is retired. Others which include more than a quarter (27.1%) are government employees, 10.5% works with private organizations, while more than a quarter (40.3%) are self-employed or in personal businesses. Moreover, it is observed that the average monthly income of respondents varied significantly as only 9.0% earns below the #30,000 national minimum wage, while 17.0% earns #30,001–#50,000 and 3.6% earns #50,001–#70,000. In addition, 14.8% earns #70,001–#90,000 while more than

| Nature of settlement location | Frequency | Percentage | Geopolitical zone of residency | Variable | Frequency | Percentage |
|-------------------------------|-----------|------------|--------------------------------|----------|-----------|------------|
| Local govt. qrts.             | 133       | 10.5       | Northeast                      | 170      | 13.4      |
| State capital                 | 636       | 50.2       | Northcentral                   | 133      | 10.5      |
| Town                          | 324       | 25.6       | Northwest                      | 198      | 15.6      |
| Hinterland                    | 158       | 12.5       | Southwest                      | 395      | 31.2      |
| Rural                         | 16        | 1.3        | Southeast                      | 177      | 14.0      |
| Others                        | -         | -          | South–south                    | 194      | 15.3      |
| Total                         | 1267      | 100.0      | Total                          | 1267     | 100.0     |

Table 1. Socio-economic and demographic characteristics of respondents.
a quarter (36.5%) earns #90,001–#110,000 and the remaining 36.5% earn more than #110,000. In the same vein, data on religion affinity shows that all major religious denominations are practised by respondents as 46.2% practices Islam, 41.8% practices Christianity, 8.4% practices traditional religion and the remaining 3.6% practices other unclassified religions. Lastly, the household size among the respondents, which ranges from less than 2 (10.3%), 2–4 persons (29.1%), 4–6 persons (27.0%) to more than 6 persons (33.5%), justified the possible concerns for safety and security during the COVID-19 pandemic lockdown measures in the country.

4.2 Nature and spatial dimension of insecurity and crime incidence

The data collected on the nature and spatial dimension of insecurity and crime incidence in Nigeria was analysed and presented in this subsection. The results give insight to the pattern and spatial dimension of crime incidences experienced by people in various communities during the lockdown measures imposed to contain the spread of the COVID-19 pandemic in the country. Here, four-point Likert's scale was used for the presentation of data in addition to frequency tables. Firstly, different restrictive measures were in place and experienced by respondents during the COVID-19 lockdown restrictions in the country. Table 2 presents the results of restrictive measures imposed on the communities of respondents across the country in which close to half of residents (41.4%) experienced total lockdown, while less than half (35.5%) experienced partial lockdown and 10.4% experienced curfew imposition in addition to the remaining 12.7% who experienced restriction on inter-state movements.

The findings on the rate of occurrence of crime before the lockdown period are presented in Table 3 using RMI and MIV. In line with the results, Table 3 presents the comparison of the MIV of 2.139 against the RMI of the identified 27 variables considered for the prevailing security situation in the country prior to the lockdown measures. Accordingly, 13 variables which have MIVs that are significantly greater than the RMI value of the analysis were observed to be highly potent denoting the most experienced crimes and security concerns experienced by respondents prior to the COVID-19 pandemic lockdown measures in the country. Precisely, cybercrime or internet fraud (3.3173), farmers and herders clash on cattle rustling (3.2968), forgery (3.2202) and kidnapping (3.0182) which have highest index values and ranked first, second, third and fourth variables, respectively, are the prime security concerns of the people. In addition, theft and pickpocketing (2.9732), terrorism, extremism and banditry (2.8919), corruption (2.6740), car snatching (2.5793), fraudulent activities (2.4159), vehicle vandalism (2.3883), murder (2.3441), commercial sex and professional escort (2.3268), homicide and suicide (2.2770) and drugs/narcotics (2.2170)

Table 2. Restrictive measures in experienced.

| Nature of restriction | Frequency | Percentage |
|-----------------------|-----------|------------|
| Total lockdown        | 524       | 41.4       |
| Partial lockdown      | 450       | 35.5       |
| Curfew                | 132       | 10.4       |
| Interstate movement restriction | 161 | 12.7     |
| Total                 | 1267      | 100.0      |
joined in decreasing order of magnitude and the least ranked among crime-related activities raising security concerns for different categories of people in the country prior to the lockdown measures put in place by the government. However, the remaining 13 variables which include looting and gang violence, public assault, obstruction to police and community vigilance, rape and sexual assault, public peace disruptions, mugging, household-commodities’ related crime, property damage, burglary, weapon attack, domestic violence without injury and domestic violence with injury are less pronounced considering the fact that their individual index values are far below the relative index value of the whole analysis; hence, denoting they are less pronounced among the respondents prior to the coronavirus outbreak and its subsequent containment measures in the country.

Similarly, data obtained on the rate of crime and insecurity concerns and occurrences during the COVID-19 pandemic lockdown measures through the use of the same approach that produced Table 3 also produced Table 4. This MIV of 2.2568 was compared against the identified 27 variables considered as the prevailing insecurity incidence in the country during the lockdown measures, and results were finally compared with that of Table 3. As a result, it is observed in Table 4 that disruption of public peace (3.6259), household-commodities’ related crime (3.6259), rape and sex assault (3.4450), burglary (3.3923), invasion or intrusion of privacy (3.0576), domestic violence without injury (3.0576) and corrupt practices (3.0055) are the predominant and top-ranked crime occurrences experienced by respondents across the country during the COVID-19 lockdown measures. Also, theft and pickpocketing (2.9290), looting and gang

Table 3. Rate of crime and insecurity occurrence prior to COVID-19 lockdown measures.

| Crime incidences                                      | N   | R   | S   | O   | TWV  | RMI  | MIV  | RK  |
|-------------------------------------------------------|-----|-----|-----|-----|------|------|------|-----|
| Crime related to household commodities                | 807 | 658 | 201 | 176 | 1882 | 1.4854 | 2.1392 | 21  |
| Public assault                                        | 574 | 772 | 318 | 804 | 2468 | 1.9479 | 16   |
| Public peace disruption                               | 784 | 742 | 204 | 176 | 1906 | 1.5043 | 19   |
| Theft and pickpocketing                               | 190 | 414 | 951 | 2212| 3767 | 2.9732 | 5    |
| Fraudulent activities                                 | 346 | 572 | 1191| 952 | 3061 | 2.4159 | 9    |
| Burglary                                              | 838 | 572 | 1191| 952 | 1801 | 1.4215 | 23   |
| Rape and sexual assault                               | 773 | 746 | 255 | 144 | 1918 | 1.5138 | 18   |
| Car snatching                                         | 248 | 456 | 1800| 764 | 3268 | 2.5793 | 8    |
| Kidnapping                                            | 193 | 260 | 1215| 2156| 3824 | 3.0182 | 4    |
| Murder                                                | 408 | 634 | 720 | 1208| 2970 | 2.3441 | 11   |
| Corruption                                            | 220 | 590 | 1290| 1288| 3386 | 2.6740 | 7    |
| Looting and gang violence                             | 630 | 540 | 333 | 1024| 2527 | 1.9945 | 15   |
| Cybercrime and internet fraud                         | 32  | 418 | 1053| 2700| 4203 | 3.3173 | 1    |
| Forgery                                               | 18  | 776 | 474 | 2812| 4080 | 3.2202 | 3    |
| Weapon attack                                         | 932 | 584 | 129 | 0   | 1733 | 1.3678 | 25   |
| Domestic violence with injury                         | 903 | 570 | 150 | 0   | 4652 | 1.3039 | 27   |
| Domestic violence without injury                      | 888 | 548 | 264 | 68  | 1768 | 1.3954 | 24   |
| Invasion or intrusion of privacy                      | 880 | 632 | 192 | 28  | 1732 | 1.3670 | 26   |
| Mugging                                               | 851 | 488 | 375 | 188 | 1902 | 1.5012 | 20   |
| Property damage                                       | 912 | 540 | 48  | 276 | 1776 | 1.4017 | 22   |
| Commercialized sex or professional escort             | 458 | 424 | 966 | 1100| 2948 | 2.3268 | 12   |
| Homicide and suicide                                  | 523 | 356 | 774 | 1232| 2885 | 2.2770 | 13   |
| Obstruction of police and community vigilance         | 793 | 570 | 222 | 460 | 2045 | 1.6140 | 17   |
| Vehicle vandalism                                     | 150 | 1350| 726 | 800 | 3026 | 2.3883 | 10   |
| Terrorism, extremism and banditry                    | 151 | 460 | 1473| 1580| 3664 | 2.8919 | 6    |
| Hard drugs and narcotics                              | 36  | 2012| 417 | 344 | 2809 | 2.2170 | 14   |
| Farmers and herders clash on cattle rustling          | 23  | 542 | 840 | 2772| 4177 | 3.2968 | 2    |

N = never, R = rarely, S = sometimes, O = often; TWV = total weighted value, RMI = relative mean index; MIV = mean index value; RK = ranking order.
violence (2.7979) and mugging (2.6764) are ranked slightly significant as their index values are slightly above the RMI value of the analysis, while variables which include property damage (2.5193), weapon attack (2.4665) forgery (2.4175), domestic violence with injury (2.3978) and fraudulent activities (2.2131) are rarely experienced and least ranked by respondents during the period under review. The remaining variables such as kidnapping, farmers and herder clash on cattle rustling, terrorism, extremism and banditry, commercial sex and professional escort, homicide and suicide, obstruction of police and community vigilance, cybercrime or internet fraud, murder, public assault, vehicle vandalism and car hijacking have values that are far below the analysis index value and as such are regarded as never or rarely experienced by members of the society during the pandemic lockdown measures.

In addition, data analysed on the temporal characteristics of crime and insecurity during the COVID-19 lockdown in Nigeria is presented in Table 5 in which results of varying time-related issues are presented. It is interesting to note that the pattern of crime and insecurity occurrence in the country during the lockdown period has no fixed time considering the fact that 9.8% of respondents attributed occurrence of such to 12 midnight to 6 am, while 13.9% attributed such to 6 am to 12 noon and less than a quarter (22.7%) experienced such at 12 noon to 6 pm. Aside from 13.9% who opines that the period for crime occurrence is unpredictable, majority (40%) of respondents noted 6 pm to 12 midnight as the period when the occurrence of crime is prevalent in the study area. More so, the days of crime occurrence during the period under review consist of

| Table 4. Rate of crime and insecurity occurrence during COVID-19 lockdown measures. |
|-----------------------------------------------|
| Crime incidences                        | N  | R  | S  | O  | TWV | RMI  | MIV | RK |
|-----------------------------------------------|
| Crime related to household commodities       | 28 | 84 | 918| 3564| 4594| 3.6259| 2.2568| 2  |
| Public assault                             | 836| 710| 129| 132| 1807| 1.4262|  |
| Public peace disruption                     | 7  | 106| 933| 3584| 4630| 3.6543|  |
| Theft and pickpocketing                     | 135| 68 | 891| 3204| 4298| 3.3923|  |
| Fraudulent activities                       | 83 | 1826| 567| 328| 2804| 2.2131|  |
| Burglary                                    | 95 | 730| 1026| 1860| 3711| 2.9290|  |
| Rape and sexual assault                     | 22 | 340| 891| 3112| 4365| 3.4451|  |
| Car snatching                              | 924| 666| 12 | 24 | 1626| 2.1283|  |
| Kidnapping                                 | 598| 480| 894| 524| 2496| 1.9700|  |
| Murder                                     | 860| 580| 126| 300| 1866| 1.4728|  |
| Corruption                                 | 63 | 528| 1629| 1588| 3808| 3.0055|  |
| Looting and gang violence                   | 62 | 740| 1194| 952| 3545| 2.7979|  |
| Cybercrime and internet fraud               | 1011 | 118 | 118 | 552| 1858| 3.0716|  |
| Forgery                                    | 429| 416| 906| 1312| 3063| 2.4175|  |
| Weapon attack                              | 18 | 710| 558| 2832| 3125| 2.4665|  |
| Domestic violence with injury               | 449| 474| 366| 1836| 3038| 2.3978|  |
| Domestic violence without injury            | 484| 699| 336| 1712| 3078| 3.0576|  |
| Invasion or intrusion of privacy            | 264| 162| 720| 2728| 3874| 3.0576|  |
| Mugged                                     | 169| 642| 1584| 996| 3391| 2.6764|  |
| Property damaged                           | 416| 308| 960| 1508| 3192| 2.5193|  |
| Commercialized sex and professional escort  | 884| 412| 81 | 600| 1977| 1.5604|  |
| Homicide and suicide                       | 884| 412| 78 | 604| 1978| 1.5512|  |
| Obstruction of police and community vigilance| 812| 616| 168| 364| 1960| 1.5470|  |
| Vehicle vandalism                          | 962| 492| 0  | 236| 1690| 1.3339|  |
| Terrorism, extremism and banditry          | 840| 496| 87 | 600| 2023| 1.5967|  |
| Hard drugs and narcotics                   | 48 | 1156| 729| 1598| 3525| 2.7822|  |
| Farmers and herders clash on cattle rustling| 491| 904| 516| 608| 2519| 1.9882|  |

N = never, R = rarely, S = sometimes, O = often; TWV = total weighted value, RMI = relative mean index, MIV = mean index value; RK = ranking order.
Source: Authors’ Fieldwork (2020).
Table 5. Temporal characteristics of crime and insecurity during COVID-19 lockdown measures.

| Crime period       | Days of crime occurrence |
|--------------------|---------------------------|
|                    | Variable                  | Frequency | Percentage | Variable                  | Frequency | Percentage |
|                    | 12 midnight- to 6 am      | 124       | 9.8        | Weekdays                  | 119       | 9.4        |
|                    | 6 am to 12 noon           | 176       | 13.9       | Weekend                   | 305       | 24.1       |
|                    | 12 noon to 6 pm           | 287       | 22.7       | Any day/unpredictable     | 843       | 66.5       |
|                    | 6 pm to 12 midnight       | 504       | 39.8       | Total                     | 1267      | 100.0      |
|                    | Unpredictable             | 176       | 13.9       | Place of crime            |           |            |
|                    | Total                     | 1267      | 100.0      | On street                 | 185       | 14.6       |
|                    | Being victim of crime     |           |            | Home                      | 763       | 60.2       |
|                    | Yes                       | 932       | 73.6       | Market                    | 47        | 3.7        |
|                    | No                        | 335       | 26.4       | ATM stands                | 30        | 2.4        |
|                    | Total                     | 1267      | 100.0      | Anywhere                  | 242       | 19.1       |
|                    | Period of being a victim of crime |       |            | Total                     | 1267      | 100.0      |
|                    | Before lockdown            | 448       | 23.9       | Number of times of being crime victim |           |            |
|                    | During lockdown            | 303       | 35.4       | Once                      | 131       | 10.3       |
|                    | Both                      | 189       | 14.9       | Twice                     | 680       | 53.7       |
|                    | Not at all                | 327       | 25.8       | Three times               | 75        | 5.9        |
|                    | Total                     | 1267      | 100.0      | More than three times     | 42        | 3.3        |
|                    | Rescue support received   |           |            | Not a victim, but heard of it | 339       | 26.8       |
|                    | Yes                       | 778       | 61.8       | Total                     | 1267      | 100.0      |
|                    | No                        | 156       | 12.3       | Sources of rescue support |           |            |
|                    | Indifference              | 333       | 26.3       | Govt. security            | 207       | 16.3       |
|                    | Total                     | 1267      | 100.0      | Community vigilante       | 357       | 28.2       |
|                    | Promptness of rescue effort |           |            | Friends/neighbour         | 103       | 8.1        |
|                    | Indifference              | 146       | 11.5       | Self-defence              | 84        | 6.6        |
|                    | Very late                 | 200       | 15.8       | Join to support           | 259       | 20.4       |
|                    | Late                      | 574       | 45.3       | Those around              | 257       | 20.3       |
|                    | Promptly                  | 162       | 12.8       | Total                     | 1267      | 100.0      |
|                    | Very promptly             | 185       | 14.6       |                           |           |            |
|                    | Total                     | 1267      | 100.0      |                           |           |            |

weekdays (9.4%) and weekends (24.1%), while close to two-third of respondents (66.5%) attributed that such do occur at unpredictable days as almost three-quarter (73.6%) has been a victim of crime before, while slightly more than a quarter (26.4%) has not experienced such before.

Consequently, more than a quarter of respondents (35.4%) across the country were victims of crime during the COVID-19 pandemic lockdown, while slightly less than a quarter (23.9%) were victims of a crime before the lockdown and 14.9% experienced such prior and during the lockdown. The remaining 25.8% of respondents have not been victims of crime but are quite aware of the presence of crime in the past. In this respect, most of the crime and security breaches were experienced at home (60.2%) aside from 19.1% of respondents who opined that such do happen anywhere in the society or community, while 14.6% experienced such on the street and 3.7% experienced such crime occurrence at automated teller machines (ATM) stands. In addition, the time of being a crime victim varied as 10.3% experienced such once, 53.7% experienced such twice, 5.9% experienced such more than thrice while 26.8% has not been a victim, but have heard of such.

With respect to rescue support during crime and security breach, more than half of respondents surveyed (61.8%) were rescued, while 12.3% did not receive any rescue support and the remaining 26.3% were indifferent. The sources of rescue supports received during the incidences varied and consist of government security agents (16.3%), community vigilante (28.2%, friends and neighbour (8.1%) and self-defense (6.6%), while 20.4% provided rescue support for victims and the remaining 20.3% was rescued by those around the scenes of the crime. On the promptness of rescue efforts,
it is observed that 11.5% of respondents are indifferent, 15.8% attributed such rescue as very late, 45.3% categorized it as late and 12.8% assessed such as promptly, while the remaining 14.6% adjudged it to be very promptly; hence, this shows that victims of crime and insecurity do suffer before rescue comes their ways.

The importance of police formation and other law enforcement agents in protecting lives and properties of people cannot be underestimated; hence, the reasons for collecting data of the existing radius of respondents to nearby police formation in which the result of the analysis presented in Table 6 show that 5.4% respondents are less than 5 km radius to police formation. Also, slightly more than half (53.7%) are 5–10 km radius of police formation, while 113.7% are 11–15 km radius and 16.1% are 16–20 km radius aside from the remaining 11.0% that are more than 20 km radius to nearby police formation. As a result, the promptness of rescue effort to crime and security breaches by law enforcement agency needs to be verified and ascertained in view of the ‘very late’ and ‘late’ responses to crime presented in Table 5.

### 4.3 Causes and aiding factors of insecurity and crime incidence

The cause and aiding factors of insecurity and crime incidences are examined from citizens of the country. Besides, it is expedient to state that more than three-quarter (76.2%) usually have feeling of insecure during the lockdown than the remaining 23.8% which denote a high level of apprehension and fear by people across geopolitical zones. Furthermore, Table 7 shows the period of feeling insecure by members of the society during the lockdown in which 13.4% feels insecure in the morning, less than one-quarter (23.0%) in the afternoon and evening, while close to half (42.9%) felt same in the night and the remaining 15.9% is indifferent. In the same regard, the reasons for feeling insecure varied among the respondents but consist of untimely rescue response and supports (21.4%), fear of crime (14.8%), and poor community spatial planning (22.0%), past crime experience (27.9%) and crime consequences (13.9%). Hence, untimely rescue

| Period                  | Frequency | Percentage | Reasons                  | Frequency | Percentage |
|-------------------------|-----------|------------|--------------------------|-----------|------------|
| Morning                 | 170       | 13.4       | Untimely rescue response  | 271       | 21.4       |
| Afternoon/evening       | 282       | 23.0       | Fear of crime            | 188       | 14.8       |
| Night                   | 543       | 42.9       | Poor community planning  | 279       | 22.0       |
| Anytime                 | 60        | 4.7        | Past crime/violence experience | 353     | 27.9       |
| Indifference            | 202       | 15.9       | Crime consequences       | 176       | 13.9       |
| Total                   | 1267      | 100.0      | Total                    | 1267      | 100.0      |
Table 8. Rating of causes/factors promoting crime and insecurity during COVID-19 lockdown measures.

| Indicators                                      | SD  | D   | A   | SA  | TWV | RMI | MIV  | RK |
|------------------------------------------------|-----|-----|-----|-----|-----|-----|------|----|
| Poverty                                        | 128 | 300 | 342 | 3500| 4270| 3.3702| 3.2590| 5  |
| Restriction of socio-economic activities       | 69  | 606 | 891 | 2392| 3958| 3.1239|      |    |
| Population density                             | 261 | 216 | 720 | 2632| 3829| 3.0221|      |    |
| Weak security measures and policy              | 37  | 504 | 690 | 2992| 4223| 3.3331|      |    |
| Social incoherence                             | 14  | 500 | 1017| 2656| 4187| 3.3047|      |    |
| Family disruption and/or excessive pressure    | 164 | 1398| 630 | 776 | 2968| 2.3425|      |    |
| Lack of palliative care/supports              | 176 | 38  | 741 | 3300| 4255| 3.3583|      |    |
| Deprivation of daily income services          | 113 | 248 | 912 | 2904| 4177| 3.2968|      |    |
| Epileptic utilities supplies                  | 48  | 372 | 1011| 2784| 4215| 3.3268|      |    |
| Poor spatial arrangement and physical planning | 28  | 106 | 555 | 3824| 4603| 3.6330|      |    |
| Attitude of the law enforcement agency         | 32  | 516 | 927 | 2672| 4147| 3.2731|      |    |
| Idleness and joblessness                      | 12  | 16  | 513 | 4304| 4845| 3.8240|      |    |
| Poor governance                                | 58  | 96  | 630 | 3804| 4588| 3.6212|      |    |
| Peer pressure                                  | 90  | 1296| 330 | 1676| 3392| 2.6772|      |    |
| Poor community development support            | 105 | 240 | 1245| 2508| 4098| 3.2344|      |    |
| Scarcity/depletion of household essentials     | 121 | 144 | 750 | 3296| 4311| 3.4025|      |    |

SD = strongly disagree, D = disagree, A = agree, SA = strongly agree, TWV = total weighted value, RMI = relative mean index, MIV = mean index value, RK = ranking order.

response, poor spatial arrangement of communities and past experience of crime or violence remain the major concerns of insecurity in the study area.

Table 8 presents the analysed factors promoting insecurity and crime during the COVID-19 lockdown in the country. The responses were rated on four-point Likert’s scale by gradation value consisting of strongly disagree (SD = 1), disagree (D = 2), agree (A = 3) and strongly agree (SA = 4). Further analysis produces the MIV of 3.2590 and RMI values. Comparing the estimated MIV of 3.2590 against the 16 identified factors promoting crime during the lockdown period, it is observed that idleness and joblessness (3.8240), poor community spatial arrangement (3.6330), poor governance (3.6212), scarcity and lack of household essentials (3.4025), poverty (3.3702), lack of palliative care and supports (3.3583), weak security measures and policy (3.3331), epileptic supply of utilities (3.3268), deprivation of daily income services (3.2968), deplorable attitude of law enforcement agents (3.2731) and social incoherence (3.3047) are prime catalysts and top-ranked factors promoting crime and insecurity during the coronavirus pandemic lockdown in the country. The remaining factors such as restriction on socio-economic activities, poor community development support, population density, peer pressure and family disruption and/or excessive pressure are less potent and least ranked as their relative index mean is lower than the overall MIV of the analysis; hence, they contributed less to crime occurrence and security breaches during the pandemic lockdown under review.

4.4 Consequences of insecurity and crime incidence during the lockdown

In addition, consequences of insecurity and crime incidences during the pandemic lockdown were assessed through the data supplied by respondents. In this respect, institutionally related violence experienced or known to respondents in the country during the lockdown was first analysed and results presented in Table 9 in which extrajudicial killing accounts for only 2.2%, while less than a quarter (20.0%) accounts
Table 9. Institutional violence experienced.

| Period                          | Frequency | Percentage |
|---------------------------------|-----------|------------|
| Extrajudicial killing           | 28        | 2.2        |
| Social cleansing/raiding        | 253       | 20.0       |
| Physical/psychological abuse    | 398       | 31.4       |
| Jungle justice                  | 185       | 14.6       |
| Brutality by law enforcement    | 403       | 31.8       |
| Total                           | 1267      | 100.0      |

for social cleansing or raiding of streets by community associations. Also, physical or psychological abuse accounts for 31.4% of responses, while 14.6% identified jungle justice meted on suspected criminal apprehended in their communities and remaining 31.8% identified brutality by law enforcement agents especially by police officers.

Relating to the institutional violence experienced in the country during the pandemic is the rating of the aftermath effects of crime and insecurity during lockdown measures by members of the society in Table 10. Likewise, this rating was done and analysed on four-point Likert’s scale with gradation value consisting of strongly disagree (SD = 1), disagree (D = 2), agree (A = 3) and strongly agree (SA = 4) for 23 indicators identified. The analysis produces the MIV of 3.2590 which was used to compare the RMI of each indicator (Table 10). Accordingly, indicators which consist of fear of fear (phobophobia) (3.4444), difficulty in sleeping at night (3.4057), possible change in residential area or relocation (3.3852), financial difficulty (3.3765), declined socio-economic capacity (3.3118), shock (3.2897), increased social vices (3.2447), anxiety and panic (3.1784), poor social support (3.1563), use or abuse of drugs (3.0174), low self-esteem (3.0805), acts of violence (3.0837), depression (3.0245), feeling vulnerable (3.0126), poor self-

Table 10. Rating of aftermath effects of crime and insecurity during lockdown measures.

| Indicators                                | SD  | D   | A   | SA  | TWV | RMI | MIV | RK |
|-------------------------------------------|-----|-----|-----|-----|-----|-----|-----|----|
| Anger                                     | 152 | 418 | 1470| 1664| 3704| 2.9234 | 2.9981 | 16 |
| Shock                                    | 69  | 316 | 1131| 2652| 4168| 3.2897 | 6   |
| Poor social support                      | 43  | 430 | 1530| 1996| 3999| 3.1563 | 9   |
| Difficulty in sleeping at night           | 55  | 278 | 930 | 3052| 4315| 3.4057 | 2   |
| Apprehension/crying/ tears               | 342 | 524 | 933 | 1408| 3207| 2.5312 | 19  |
| Depression                               | 158 | 442 | 960 | 2272| 3832| 3.0245 | 13  |
| Anxiety or panic                         | 72  | 326 | 1497| 2132| 4027| 3.1784 | 8   |
| Poor self-confidence                     | 153 | 318 | 1422| 1924| 3817| 3.0126 | 14  |
| Feeling vulnerable                        | 245 | 312 | 380 | 2944| 3817| 3.0126 | 14  |
| Annoyance                                 | 267 | 516 | 612 | 2152| 3547| 2.7995 | 20  |
| Thought of suicide or suicide attempts    | 673 | 902 | 222 | 276 | 2073| 1.6361 | 22  |
| Use/abuse of drug                         | 144 | 554 | 777 | 2348| 3823| 3.0174 | 10  |
| Increased social vices                    | 191 | 170 | 642 | 3108| 4111| 3.2447 | 7   |
| Trauma/mental health disorder             | 282 | 246 | 909 | 2236| 3673| 2.8990 | 17  |
| Other health problems                     | 275 | 494 | 498 | 2316| 3583| 2.8279 | 18  |
| Acts of violence                          | 228 | 202 | 825 | 2652| 3907| 3.0837 | 12  |
| Suicide                                  | 539 | 378 | 453 | 1552| 2922| 2.3062 | 21  |
| Low-self-esteem                           | 236 | 212 | 735 | 2720| 3903| 3.0805 | 11  |
| Feelings of hopelessness                  | 273 | 230 | 621 | 2688| 3812| 3.0087 | 15  |
| Declined socio-economic capacity          | 127 | 294 | 591 | 3184| 4196| 3.3118 | 5   |
| Possible change in residential area/relocation | 92  | 286 | 651 | 3260| 4289| 3.3852 | 3   |
| Financial difficulty/problems             | 127 | 194 | 645 | 3312| 3444| 3.3765 | 4   |
| Fear of fear (phobophobia)                | 93  | 198 | 681 | 3392| 4364| 3.4444 | 1   |

SD = strongly disagree, D = disagree, A = agree, SA = strongly agree; TWV = total weighted value, RMI = relative mean index, MIV = mean index value, RK = ranking order.
Source: Authors’ Fieldwork (2020).
confidence (3.0126) and feeling of hopelessness (3.0087) are the adverse effects of crime and insecurity that are evidently in existence across in the country. However, anger, trauma and mental health disorder, apprehension, depressing, loneliness, annoyance, suicide and thought of suicide or suicide attempts and other health problems are less potent and least ranked but require attention to prevent the situation from becoming worst, and this is also in consideration of the fact that their relative index values are slightly lower than the MIV of the analysis.

4.5 Mechanism for improved safety and security system

In order not to only minimize crime, but to also improve safety and security of lives and properties now and in the future, data was also collected on the frequency of protection strategies used during the lockdown by individuals, and as members of the community. These data were also analysed on four-point Likert’s scale with the gradation values consisting of never used (N = 1), rarely used (R = 2), sometimes used (S = 3) and often used (O = 4) for nine identified indicators which produced the MIV of 2.6784, which was used to compare with the individual RMI of the indicators (Table 11). As a result, external illumination of buildings and compounds (3.6172), participation in the use of night watchmen (3.5943), improved house lock system (3.5943) and the use of self-defence mechanism, e.g. cutlass, axe, plank, etc. (3.5209), happened to be the main protective and top-ranked strategies individually devised by members of the society as protection strategies against crime, insecurity and intrusions at homes. In contrast, the use of security light, security dogs, installation of security alarms, traditional protective aid and installation of security surveillance camera at homes were rarely used and less ranked.

In Table 12, the frequency of use of some strategies for community protection against crime and insecurity is presented through the analysis of responses on the eleven indicators ranked on four-point Likert’s scale with gradation value consisting of never used (N = 1), rarely used (R = 2), sometimes used (S = 3) and often used (O = 4). This analysis produced the MIV of 2.5005 that was used to compare the RMI of each of the indicators in Table 12. Accordingly, formation of vigilante group (3.3820), introduction of local curfew at night (3.3520), recruitment of watchmen or traditional guards (3.3031), community–police collaboration (3.1523) and local security alarms (2.5383) were mostly used as community protection and top-ranked strategies during the lockdown, while the

| Table 11. Frequency of the use of individual protection strategies during lockdown measures. |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Indicators                      | N      | R      | S      | O      | TWV    | RMI    | MIV    | RK     |
| Use of security dog             | 558    | 696    | 462    | 828    | 2544   | 2.0079 | 2.6784 | 5      |
| Participation in the use of night watchmen | 22    | 68     | 1140   | 3234   | 4554   | 3.5943 |        |        |
| Local traditional protective aid (charms) | 795   | 286    | 165    | 108    | 2342   | 1.8485 |        |        |
| Installation of security surveillance camera | 641   | 742    | 381    | 496    | 2276   | 1.7964 |        |        |
| Use of self-defence mechanism, e.g. cutlass, axe | 35    | 140    | 1086   | 3200   | 4462   | 3.5209 |        |        |
| Improved lock system            | 35     | 150    | 777    | 3592   | 4554   | 3.5943 |        |        |
| Installation of security alarms  | 787    | 104    | 336    | 1264   | 2491   | 1.9661 |        |        |
| Use of security light 24/7       | 665    | 152    | 552    | 1368   | 2737   | 2.1602 |        |        |
| External illumination of buildings/compounds | 35    | 128    | 756    | 3664   | 4583   | 3.6172 |        |        |

N = never, R = rarely, S = sometimes, O = often, TWV = total weighted value, RMI = relative mean index, MIV = mean index value, RK = ranking order.
use of security dogs, engagement of modern guards, prevention through gated mechanism, community street lighting and installation of surveillance cameras were rarely used and least ranked.

In order to improve security architecture and also minimize prevailing crime and insecurity in communities and neighbourhoods during the current and future emergencies in the country, 13 appropriate measures were examined from the perspective of respondents. The measures were equally analysed on four-point Likert’s scale with gradation value consisting of inappropriate (I = 1), slightly appropriate (SA = 2), appropriate (A = 3) and absolutely appropriate (A = 4), and the analysis produces the MIV of 2.64578 which was subsequently used to compare the RMI of each indicator in the analysis presented in Table 13. Interestingly, social security package (3.2092), improved public utilities, facilities and services (3.1855), encouragement of community spatial planning renewal (3.0624) and strengthening of existing community vigilance (3.0560) are the leading and top-ranked measures recommended to minimize crime and enhance safety now, and in future-related crime incidences in the country.

Also, community policing in collaboration with police activities (2.9179), community street lighting (2.7356) and prevention through gated community and neighbourhood (2.6219) are another appropriate measures considered to be essential in minimizing

### Table 12. Frequency of the use of community protection strategies during lockdown measures.

| Indicators                              | N   | R   | S   | O   | TWV  | RMI  | MIV  | RK |
|-----------------------------------------|-----|-----|-----|-----|------|------|------|----|
| Use of security dogs                    | 671 | 158 | 540 | 1348| 2717 | 2.1444| 2.5004| 7  |
| Recruitment of watchmen or traditional guards | 169 | 126 | 450 | 785 | 4185 | 3.3031| 3   |
| Local traditional local alarms system  | 527 | 242 | 531 | 1768| 3068 | 2.4215| 6   |
| Installation of surveillance cameras    | 928 | 140 | 342 | 620 | 2030 | 1.5022| 11  |
| Formation of community vigilante group | 131 | 144 | 738 | 3272| 4285 | 3.3820| 1   |
| Community street lighting project       | 926 | 136 | 84  | 980 | 2126 | 1.6780| 10  |
| Local security alarms                   | 501 | 96  | 759 | 1860| 3216 | 2.5383| 5   |
| Introduction of local curfew at night/restriction | 36  | 136 | 1731| 2344| 4247 | 3.3520| 2   |
| Community–police collaboration          | 269 | 162 | 315 | 3248| 3994 | 3.1523| 4   |
| Prevention through gated mechanism      | 689 | 386 | 201 | 1272| 2548 | 2.0110| 9   |
| Engagement of modern guards             | 741 | 130 | 468 | 1220| 2559 | 2.0197| 8   |

N = never, R = rarely, S = sometimes, O = often, TWV = total weighted value, RMI = relative mean index, MIV = mean index value, RK = ranking order.

Source: Authors’ Fieldwork (2020).

### Table 13. Strategic measures towards preventing insecurity and crime during pandemic lockdown.

| Indicators                                      | I  | SA   | A   | AA  | TWV  | RMI  | MIV  | RK  |
|------------------------------------------------|----|------|-----|-----|------|------|------|-----|
| Encourage the use of security dogs             | 527| 516  | 933 | 648 | 2660 | 2.0994| 2.64578| 12  |
| Strengthening of existing community vigilance  | 244| 146  | 954 | 2525| 3872 | 3.0560|      |
| Formation of local community vigilante         | 414| 518  | 456 | 1756| 3152 | 2.4886|      |
| Installation of surveillance cameras at strategic locations | 400| 406  | 480 | 2016| 3302 | 2.6066|      |
| Establishment of traditional surveillance team  | 629| 98   | 468 | 1732| 2927 | 2.3102|      |
| Community street lighting                      | 270| 598  | 582 | 2016| 3466 | 2.7356|      |
| Installation of security alarms                | 470| 364  | 786 | 1412| 3032 | 2.3931|      |
| Introduction/sustenance of community restriction at night | 843| 268  | 318 | 736 | 2165 | 1.7088|      |
| Community policing in collaboration with police activities | 231| 510  | 504 | 2452| 3697 | 2.9179|      |
| Prevention through gated community and neighbourhood | 477| 98   | 651 | 2096| 3322 | 2.6219|      |
| Encouragement of community physical planning renewal | 169| 560  | 363 | 2788| 3880 | 3.0624|      |
| Improved public utilities, facilities and services | 156| 280  | 840 | 2748| 4036 | 3.1855|      |
| Social security package                        | 103| 320  | 1119| 2524| 4066 | 3.2092|      |

I = inappropriate, SA = slightly appropriate, A = appropriate, AA = absolutely appropriate, TWV = total weighted value, RMI = relative mean index, MIV = mean index value, RK = ranking order.
crime and enhancing safety considering the fact that their index values are slightly higher than the MIV of the analysis, while the remaining indicators such as installation of surveillance cameras at strategic locations, formation of local community vigilante where it is not in existence before, installation of security alarms, establishment of traditional surveillance team and encouraging the use of security dogs are considered to be slightly appropriate measures in the future.

4.6 Hypothesis testing

4.6.1 Association between COVID-19-restrictive measures and the surge in insecurity and crime incidence using Fisher’s exact test

Further investigations were conducted on the association between the COVID-19 lockdown measures and the occurrence of crime incidence in the study area. Descriptively, the cross-tabulation of the Fisher’s exact test was used to relate the relationship between the categorical variable (COVID-19-restrictive measures) and a group of independent variables used to measure the occurrence of crime incidences. Based on the cross-tabulation results shown in Table 14, it can be deduced that the occurrence of crime incidences was more prominent in areas where there was total lockdown (41.4%) and partial lockdown (35.5%) than in areas with curfew (10.4%) and only interstate travel restrictions (12.7%). The observed higher percentage in respect to total and partial restrictive measures is relative to curfew and interstate travel restriction across all crime cases as Table 14 confirmed these results. Meanwhile, the correspondent analysis also revealed that crimes related to theft of household commodities (94.5%), public assault (84.8%), public peace disruption (95.2%), fraudulent activities (63.7%), weapon or vicious attacks (70.6%), domestic violence with injury (45.8%), domestic violence without injury (72.7%), property damage (55.1%), invasion or intrusion of privacy (72.7%), mugged (61.4%) and looting or gang violence (65.9%) were very common crime incidences regardless of the observed restrictive measures imposed during the lockdown period in the study area, while crimes such as rape and sexual assault (94.0%), car snatching (99.2%), kidnapping (66.1%), murder (90.8%), cybercrime and internet fraud (84.5%), forgery (50.3%), commercialized sex (86.1%); homicide and suicide (86.1%), obstruction of police/community vigilante (88.4%), vehicle vandalism (95.3%), terrorism (85.9%), and farmer and herders clash on cattle rustling (74.5%) were uncommon or rarely occurred crime incidences experienced during the lockdown period. By implication, the introduction of lockdown restrictive measures during the COVID-19 pandemic in Nigeria, although effective in containment of the spread of the new infection cases across the country, brought a lot of fear of insecurity and a spike in crime occurrence with lots of socio-economic consequences on residents in the study area.

Furthermore, the test of statistical relationship between a categorical variable (COVID-19-restrictive measures) and the distribution of another group of variables (occurrence of insecurity and crime incidence) through the Fisher’s exact test presented in Table 14 revealed that all the 27 examined crime incidences are significantly associated with the COVID-19-restrictive measures in the study area. These findings were confirmed to be statistically significant as their calculated significant values (p values) for the Fisher’s exact test were less than the table significance level of 0.05 (Table 14). Hence, the rejection of the null hypothesis (H0) and acceptance of the alternative hypothesis (H1)
Table 14. Fisher’s exact test of the COVID-19 lockdown measures and surge in crime.

| Crime                        | Restrictive measures | Fisher’s exact test |
|------------------------------|----------------------|---------------------|
|                              | Total lockdown       | Partial lockdown    | Curfew | Interstate restriction | Total | Value | Sig. (p value) |
| Crime related to household commodities | 0.8 | 1.4 | 0.0 | 0.0 | 2.2 | 73.817 | 0.000 |
| Never                        | 0.6 | 0.9 | 0.9 | 0.9 | 3.3 |           |       |
| Rarely                       | 11.1 | 9.9 | 2.2 | 0.9 | 24.2 |           |       |
| Sometimes                    | 28.9 | 23.3 | 7.3 | 10.9 | 70.3 |           |       |
| Total                        | 41.4 | 35.5 | 10.4 | 12.7 | 100 |           |       |
| Public assault               | 1.7 | 0.0 | 0.0 | 0.0 | 1.7 | 119.038 | 0.000 |
| Never                        | 3.6 | 5.8 | 1.2 | 2.8 | 13.4 |           |       |
| Rarely                       | 6.6 | 9.6 | 4.9 | 2.4 | 23.4 |           |       |
| Sometimes                    | 29.4 | 20.1 | 4.3 | 7.5 | 61.4 |           |       |
| Always                       | 41.4 | 35.5 | 10.4 | 12.7 | 100 |           |       |
| Public peace disruption      | 0.1 | 0.5 | 0.0 | 0.0 | 0.6 | 32.526 | 0.000 |
| Never                        | 1.8 | 2.4 | 0.0 | 0.0 | 4.2 |           |       |
| Rarely                       | 9.5 | 9.6 | 2.4 | 3.1 | 24.5 |           |       |
| Sometimes                    | 30.0 | 23.0 | 8.1 | 9.6 | 70.7 |           |       |
| Always                       | 41.4 | 35.5 | 10.4 | 12.7 | 100 |           |       |
| Theft and pickpocketing      | 5.2 | 1.3 | 0.0 | 0.0 | 6.6 | 69.724 | 0.000 |
| Never                        | 28.7 | 26.8 | 8.1 | 8.5 | 72.1 |           |       |
| Rarely                       | 5.1 | 5.2 | 1.5 | 3.1 | 14.9 |           |       |
| Sometimes                    | 2.3 | 2.2 | 0.8 | 1.1 | 6.5 |           |       |
| Always                       | 41.4 | 35.5 | 10.4 | 12.7 | 100 |           |       |
| Fraudulent activities        | 2.1 | 4.6 | 0.0 | 0.8 | 7.5 | 135.714 | 0.000 |
| Never                        | 11.4 | 14.1 | 2.5 | 0.8 | 28.8 |           |       |
| Rarely                       | 13.0 | 6.2 | 4.2 | 3.6 | 27.0 |           |       |
| Sometimes                    | 14.8 | 10.7 | 3.7 | 7.5 | 36.7 |           |       |
| Always                       | 41.1 | 35.5 | 10.4 | 12.5 | 100 |           |       |
| Burglary                     | 3.9 | 6.7 | 0.0 | 0.0 | 10.7 | 139.160 | 0.000 |
| Never                        | 0.0 | 2.7 | 0.0 | 0.0 | 2.7 |           |       |
| Rarely                       | 10.5 | 7.2 | 2.7 | 3.1 | 23.4 |           |       |
| Sometimes                    | 26.9 | 18.9 | 7.7 | 9.6 | 63.2 |           |       |
| Always                       | 41.4 | 35.5 | 10.4 | 12.7 | 100 |           |       |
| Rape and sexual assault      | 26.6 | 22.1 | 7.7 | 9.6 | 66.0 | 47.270 | 0.000 |
| Never                        | 12.7 | 9.5 | 2.7 | 3.2 | 28.0 |           |       |
| Rarely                       | 0.9 | 2.4 | 0.0 | 0.0 | 3.4 |           |       |
| Sometimes                    | 1.1 | 1.5 | 0.0 | 0.0 | 2.6 |           |       |
| Always                       | 41.4 | 35.5 | 10.4 | 12.7 | 100 |           |       |

(Continued)
Table 14. (Continued).

|                  | Restrictive measures | Fisher’s exact test |
|------------------|----------------------|---------------------|
| **Car snatching** |                      |                     |
| Never            | 29.8                 | 72.9               |
| Rarely           | 10.8                 | 26.3               |
| Sometimes        | 0.3                  | 0.0                |
| Always           | 0.5                  | 0.5                |
| Total            | 41.4                 | 12.7               |
| **Kidnapping**   |                      |                     |
| Never            | 20.8                 | 47.2               |
| Rarely           | 8.7                  | 18.9               |
| Sometimes        | 5.7                  | 23.5               |
| Always           | 6.2                  | 10.3               |
| Total            | 41.4                 | 12.7               |
| **Murder**       |                      |                     |
| Never            | 27.8                 | 67.9               |
| Rarely           | 10.8                 | 22.9               |
| Sometimes        | 0.6                  | 3.3                |
| Always           | 2.1                  | 5.9                |
| Total            | 41.4                 | 12.7               |
| **Corruption**   |                      |                     |
| Never            | 2.1                  | 5.0                |
| Rarely           | 9.2                  | 20.8               |
| Sometimes        | 19.5                 | 42.9               |
| Always           | 10.5                 | 31.3               |
| Total            | 41.4                 | 12.7               |
| **Looting and gang violence** |                  |                     |
| Never            | 2.9                  | 4.9                |
| Rarely           | 11.8                 | 29.2               |
| Sometimes        | 19.7                 | 47.1               |
| Always           | 7.0                  | 18.8               |
| Total            | 41.4                 | 12.7               |
| **Cybercrime and internet fraud** |           |                     |
| Never            | 32.6                 | 79.8               |
| Rarely           | 2.4                  | 4.7                |
| Sometimes        | 3.2                  | 4.7                |
| Always           | 3.1                  | 10.9               |
| Total            | 41.4                 | 12.7               |
| **Forgery**      |                      |                     |
| Never            | 9.0                  | 33.9               |
| Rarely           | 10.3                 | 16.4               |
| Sometimes        | 12.5                 | 23.8               |
| Always           | 9.6                  | 25.9               |
| Total            | 41.4                 | 12.7               |
Table 14. (Continued).

|                        | Restrictive measures | Fisher’s exact test |
|------------------------|----------------------|---------------------|
|                         | Never                | Rarely              | Sometimes | Always | Total | Never | Rarely | Sometimes | Always | Total | p-value | p-value |
| **Weapon attack**       |                      |                     |           |        |       |       |        |           |        |       |         |         |
| Never                  | 0.5                  | 0.9                 | 0.0       | 0.1    | 1.4   | 178.721 | 0.000   |            |            |       |         |         |
| Rarely                 | 17.7                 | 9.5                 | 0.0       | 0.7    | 28.0  |          |         |            |            |       |         |         |
| Sometimes              | 3.6                  | 6.8                 | 1.3       | 3.0    | 14.7  |          |         |            |            |       |         |         |
| Always                 | 19.6                 | 18.3                | 9.2       | 8.8    | 55.9  |          |         |            |            |       |         |         |
| **Total**              | 41.4                 | 35.5                | 10.4      | 12.7   | 100   |          |         |            |            |       |         |         |
| **Domestic violence with injury** |                      |                     |           |        |       |       |        |           |        |       |         |         |
| Never                  | 17.0                 | 8.3                 | 3.9       | 6.3    | 35.4  | 69.175  | 0.000   |            |            |       |         |         |
| Rarely                 | 7.3                  | 6.4                 | 2.9       | 2.1    | 18.7  |          |         |            |            |       |         |         |
| Sometimes              | 3.1                  | 4.5                 | 1.0       | 1.0    | 9.6   |          |         |            |            |       |         |         |
| Always                 | 14.0                 | 16.3                | 2.6       | 3.2    | 36.2  |          |         |            |            |       |         |         |
| **Total**              | 41.4                 | 35.5                | 10.4      | 12.7   | 100   |          |         |            |            |       |         |         |
| **Domestic violence without injury** |                      |                     |           |        |       |       |        |           |        |       |         |         |
| Never                  | 16.7                 | 5.5                 | 4.3       | 4.7    | 20.8  | 157.371 | 0.000   |            |            |       |         |         |
| Rarely                 | 7.2                  | 2.1                 | 0.9       | 1.5    | 6.4   |          |         |            |            |       |         |         |
| Sometimes              | 3.2                  | 5.4                 | 2.6       | 1.8    | 18.9  |          |         |            |            |       |         |         |
| Always                 | 14.4                 | 22.4                | 2.6       | 4.7    | 53.8  |          |         |            |            |       |         |         |
| **Total**              | 41.4                 | 35.5                | 10.4      | 12.7   | 100   |          |         |            |            |       |         |         |
| **Invasion or intrusion of privacy** |                      |                     |           |        |       |       |        |           |        |       |         |         |
| Never                  | 6.2                  | 5.5                 | 4.3       | 4.7    | 20.8  | 122.097 | 0.000   |            |            |       |         |         |
| Rarely                 | 1.9                  | 2.1                 | 0.9       | 1.5    | 6.4   |          |         |            |            |       |         |         |
| Sometimes              | 9.1                  | 5.4                 | 2.6       | 1.8    | 18.9  |          |         |            |            |       |         |         |
| Always                 | 24.2                 | 22.4                | 2.6       | 4.7    | 53.8  |          |         |            |            |       |         |         |
| **Total**              | 41.4                 | 35.5                | 10.4      | 12.7   | 100   |          |         |            |            |       |         |         |
| **Mugged**             |                      |                     |           |        |       |       |        |           |        |       |         |         |
| Never                  | 3.6                  | 4.3                 | 2.8       | 2.8    | 13.3  | 80.589  | 0.000   |            |            |       |         |         |
| Rarely                 | 12.6                 | 6.9                 | 2.8       | 3.0    | 25.3  |          |         |            |            |       |         |         |
| Sometimes              | 17.2                 | 14.7                | 4.2       | 5.6    | 41.7  |          |         |            |            |       |         |         |
| Always                 | 8.0                  | 9.7                 | 0.6       | 1.3    | 19.7  |          |         |            |            |       |         |         |
| **Total**              | 41.4                 | 35.5                | 10.4      | 12.7   | 100   |          |         |            |            |       |         |         |
| **Property damaged**   |                      |                     |           |        |       |       |        |           |        |       |         |         |
| Never                  | 17.2                 | 7.2                 | 2.6       | 5.8    | 32.8  | 183.549 | 0.000   |            |            |       |         |         |
| Rarely                 | 3.0                  | 4.1                 | 2.2       | 2.8    | 12.2  |          |         |            |            |       |         |         |
| Sometimes              | 10.5                 | 7.4                 | 4.3       | 3.1    | 25.3  |          |         |            |            |       |         |         |
| Always                 | 10.7                 | 16.8                | 1.3       | 0.9    | 29.8  |          |         |            |            |       |         |         |
| **Total**              | 41.4                 | 35.5                | 10.4      | 12.7   | 100   |          |         |            |            |       |         |         |
| **Commercialized sex and professional escort** |                      |                     |           |        |       |       |        |           |        |       |         |         |
| Never                  | 34.2                 | 16.0                | 8.8       | 10.8   | 69.8  | 284.477 | 0.000   |            |            |       |         |         |
| Rarely                 | 5.5                  | 7.2                 | 1.7       | 1.0    | 16.3  |          |         |            |            |       |         |         |
| Sometimes              | 0.3                  | 1.8                 | 0.0       | 0.0    | 2.1   |          |         |            |            |       |         |         |
| Always                 | 1.3                  | 10.5                | 0.0       | 0.0    | 11.8  |          |         |            |            |       |         |         |
| **Total**              | 41.4                 | 35.5                | 10.4      | 12.7   | 100   |          |         |            |            |       |         |         |
Table 14. (Continued).

|                          | Restrictive measures | Fisher's exact test |
|--------------------------|----------------------|---------------------|
| **Homicide and suicide** |                      |                     |
| Never                    | 34.4                 | 16.2                |
| Rarely                   | 5.3                  | 7.0                 |
| Sometimes                | 0.3                  | 1.7                 |
| Always                   | 1.3                  | 10.6                |
| Total                    | 41.4                 | 35.5                |
| **Obstruction of police and community vigilante** |                      |                     |
| Never                    | 27.5                 | 19.5                |
| Rarely                   | 9.1                  | 11.0                |
| Sometimes                | 0.0                  | 4.4                 |
| Always                   | 4.7                  | 0.6                 |
| Total                    | 41.4                 | 35.5                |
| **Vehicle vandalism**    |                      |                     |
| Never                    | 31.3                 | 27.5                |
| Rarely                   | 7.5                  | 7.7                 |
| Sometimes                | 0.0                  | 0.0                 |
| Always                   | 2.5                  | 0.2                 |
| Total                    | 41.4                 | 35.5                |
| **Terrorism, extremism and banditry** |                      |                     |
| Never                    | 31.7                 | 16.8                |
| Rarely                   | 7.5                  | 6.7                 |
| Sometimes                | 0.5                  | 1.8                 |
| Always                   | 1.7                  | 10.2                |
| Total                    | 41.4                 | 35.5                |
| **Hard drugs and narcotics** |                      |                     |
| Never                    | 1.4                  | 2.0                 |
| Rarely                   | 21.0                 | 10.5                |
| Sometimes                | 8.7                  | 5.4                 |
| Always                   | 10.3                 | 17.7                |
| Total                    | 41.4                 | 35.5                |
| **Farmers and herders clash on cattle rustling** |                      |                     |
| Never                    | 15.7                 | 13.5                |
| Rarely                   | 16.7                 | 9.0                 |
| Sometimes                | 7.4                  | 3.4                 |
| Always                   | 1.6                  | 9.6                 |
| Total                    | 41.4                 | 35.5                |
which state that there is a significant association between the COVID-19-restrictive measures and the occurrence of insecurity and crime incidence. By implication, it can be inferred that the observed surge in the occurrence of crime incidence during the lockdown period in Nigeria is associated with the introduced COVID-19-restrictive measures across the country.

4.6.2 Association between the residents’ socio-economic and demographic characteristics and the institutional violence experienced using Fisher’s exact test

Similarly, in a bid to establish the relationship between residents’ socio-economic and demographic characteristics and the institutional violence experienced, further investigations were conducted using the Fisher’s exact test analysis to relate the association between the categorical variable (institutional violence experienced) and a group of independent variables (socio-economic and demographic characteristics). Based on the cross-tabulation of the Fisher’s exact test results shown in Table 15, it can be deduced that the residents’ socio-economic and demographic status has significant association with the institutional violence experienced most especially physical and psychological abuse and brutality by law enforcement agents. The observed higher percentage in respect to physical and psychological abuse (31.4%) and brutality by law enforcement (31.8%) is relative to extrajudicial killings (2.2%), social cleansing or raiding (20.0%) and jungle justice (14.6%) across all socio-economic and demographic variables in Table 15. Meanwhile, respondents who mostly experienced the institutional violence during the lockdown period in the study area were mostly residents of state capitals and towns (75.8%), residents of southwestern Nigeria (31.2%) with 11–20 years of residency (51.3%), male (60.4%), married (81.4%), above 45 years old (72.7%), educated (96.6%), gainfully employed (61.3%), earned above the minimum wage (90.4%) and with over four household members (60.5%). By implication, the institutional violence experienced is a function of residents’ socio-economic and demographic characteristics across the country, Nigeria.

Furthermore, the test of statistical relationship between a categorical variable (institutional violence experienced) and the distribution of another group of variables (socio-economic and demographic characteristics) through the Fisher’s exact test presented in Table 15 revealed that all the 11 examined socio-economic and demographic variables significantly associated with the institutional violence experienced by respondents in the study area. These findings were confirmed to be statistically significant as the calculated significant values (p values) for the Fisher’s Exact Test were less than the table significance level of 0.05 (see Table 15). Hence, the rejection of the null hypothesis (H0) and acceptance of the alternative hypothesis (H1) which state that there is a significant association between residents’ socio-economic and demographic characteristics and the institutional violence experienced. By implication, it can be inferred that the institutional violence experienced is a function of residents’ socio-economic and demographic characteristics in the study area.
Table 15. Fisher’s exact tests of socio-economic and demographic characteristics of residents’ and the institutional violence experienced.

| Socio-economic and demographic characteristics | Extrajudicial killing | Social cleansing/raiding | Physical/psychological abuse | Jungle justice | Brutality by law enforcement | Total | Value | Sig. (p value) |
|-----------------------------------------------|-----------------------|--------------------------|-----------------------------|--------------|----------------------------|-------|-------|-------------|
| **Location**                                  |                       |                          |                             |              |                            |       |       |             |
| LGA                                           | 0.1                   | 1.4                      | 2.1                         | 0.9          | 6.1                        | 10.5  | 69.277| 0.000       |
| State capital                                 | 0.5                   | 9.9                      | 17.6                        | 7.6          | 13.7                       | 50.2  |       |             |
| Town                                          | 0.6                   | 5.0                      | 8.6                         | 3.6          | 8.0                        | 25.6  |       |             |
| Hinterland                                    | 0.0                   | 3.6                      | 3.2                         | 2.1          | 3.6                        | 12.5  |       |             |
| Rural area                                    | 0.0                   | 0.2                      | 0.1                         | 0.6          | 0.5                        | 1.3   |       |             |
| Total                                         | 2.2                   | 20.0                     | 31.4                        | 14.6         | 31.8                       | 100   |       |             |
| **Region of residence**                       |                       |                          |                             |              |                            |       |       |             |
| Northeast                                     | 0.0                   | 3.5                      | 5.0                         | 1.6          | 3.4                        | 13.4  | 302.146| 0.000       |
| Northsouth                                    | 0.0                   | 0.1                      | 5.7                         | 0.4          | 4.3                        | 10.5  |       |             |
| Northwest                                     | 0.0                   | 3.3                      | 3.9                         | 0.9          | 7.5                        | 15.6  |       |             |
| Southwest                                     | 1.7                   | 7.4                      | 9.2                         | 5.0          | 7.4                        | 31.2  |       |             |
| Southeast                                     | 0.0                   | 3.3                      | 2.3                         | 0.9          | 1.3                        | 14.0  |       |             |
| South–south                                   | 0.6                   | 2.4                      | 5.4                         | 5.8          | 15.3                       |       |       |             |
| Total                                         | 2.2                   | 20.0                     | 31.4                        | 14.6         | 31.8                       | 100   |       |             |
| **Period of residence**                       |                       |                          |                             |              |                            |       |       |             |
| Since birth                                   | 0.9                   | 4.1                      | 4.1                         | 1.3          | 1.2                        | 11.7  | 312.555| 0.000       |
| Below 5 years                                 | 0.1                   | 2.0                      | 3.9                         | 4.8          | 0.0                        | 10.7  |       |             |
| 5–10 years                                    | 0.0                   | 4.2                      | 4.7                         | 3.1          | 7.0                        | 18.9  |       |             |
| 11–15 years                                   | 0.0                   | 5.1                      | 11.5                        | 2.4          | 9.3                        | 28.3  |       |             |
| 16–20 years                                   | 0.6                   | 3.2                      | 5.4                         | 1.7          | 12.1                       | 23.0  |       |             |
| Above 20 years                                | 0.6                   | 1.4                      | 1.8                         | 1.3          | 2.2                        | 7.3   |       |             |
| Total                                         | 2.2                   | 20.0                     | 31.4                        | 14.6         | 31.8                       | 100   |       |             |
| **Gender**                                    |                       |                          |                             |              |                            |       |       |             |
| Male                                          | 1.4                   | 13.9                     | 21.9                        | 12.1         | 11.1                       | 60.4  | 172.067| 0.000       |
| Female                                        | 0.8                   | 6.1                      | 9.6                         | 2.5          | 20.7                       | 39.6  |       |             |
| Total                                         | 2.2                   | 20.1                     | 31.4                        | 14.6         | 31.8                       | 100   |       |             |
| **Marital status**                            |                       |                          |                             |              |                            |       |       |             |
| Single                                        | 0.6                   | 4.3                      | 2.4                         | 0.1          | 3.6                        | 10.9  | 149.495| 0.000       |
| Married                                       | 1.1                   | 15.1                     | 26.6                        | 12.2         | 26.4                       | 81.4  |       |             |
| Divorce                                       | 0.6                   | 0.0                      | 0.0                         | 1.2          | 0.0                        | 1.7   |       |             |
| Widow                                         | 0.0                   | 0.6                      | 2.4                         | 1.2          | 1.7                        | 6.0   |       |             |
| Total                                         | 2.2                   | 20.0                     | 31.4                        | 14.6         | 31.8                       | 100   |       |             |
Table 15. (Continued).

| Institutional violence experienced | Fisher’s exact test |
|-----------------------------------|---------------------|
| Age                               |                     |
| 18–25                             | 0.0                 | 2.4                 | 347.461  | 0.000 |
| 26–35                             | 1.1                 | 0.2                 | 1.0      | 0.0   |
| 36–45                             | 0.6                 | 1.2                 | 4.8      | 0.0   |
| 46–55                             | 0.2                 | 1.2                 | 2.1      | 3.2   |
| 56–65                             | 0.4                 | 1.2                 | 4.3      | 6.7   |
| Above 65                          | 0.0                 | 1.2                 | 9.9      | 23.2  |
| Total                             | 2.2                 | 20.0                | 31.4     | 14.6  |
| Educational qualification         |                     |
| Primary                           | 0.6                 | 3.4                 | 3.2      | 0.9   |
| Secondary                         | 1.1                 | 3.0                 | 11.8     | 8.6   |
| NCE/ND                            | 0.6                 | 1.4                 | 2.7      | 2.1   |
| First degree                      | 0.0                 | 3.7                 | 8.4      | 16.7  |
| Post graduate                     | 0.0                 | 6.0                 | 5.2      | 2.8   |
| No formal education               | 0.0                 | 2.4                 | 0.2      | 0.5   |
| Total                             | 2.2                 | 20.0                | 31.4     | 14.6  |
| Occupation                        |                     |
| Unemployed                        | 0.0                 | 4.7                 | 0.3      | 1.3   |
| Govt. employed                    | 0.6                 | 1.7                 | 10.4     | 4.3   |
| Private employed                  | 0.1                 | 1.1                 | 5.1      | 2.0   |
| Self-employed                     | 1.0                 | 9.1                 | 13.1     | 5.9   |
| Student                           | 0.6                 | 2.4                 | 0.3      | 1.6   |
| Pensioner/retiree                 | 0.0                 | 0.9                 | 2.2      | 0.9   |
| Total                             | 2.2                 | 20.0                | 31.4     | 14.6  |
| Average monthly income            |                     |
| < N33,000                         | 0.2                 | 4.7                 | 2.5      | 1.1   |
| 33,001–50,000                     | 0.4                 | 3.7                 | 3.7      | 7.3   |
| 50,001–70,000                     | 0.0                 | 0.2                 | 1.1      | 0.2   |
| 70,001–90,000                     | 0.0                 | 0.9                 | 8.0      | 5.1   |
| 90,001–110,000                    | 0.6                 | 9.2                 | 9.3      | 7.2   |
| >110,000                          | 1.0                 | 1.3                 | 6.8      | 9.0   |
| Total                             | 2.2                 | 20.0                | 31.4     | 14.6  |
| Religion affiliation              |                     |
| Islamic                           | 0.9                 | 4.1                 | 13.3     | 7.5   |
| Christianity                      | 0.2                 | 12.4                | 14.4     | 3.2   |
| Traditional                       | 0.5                 | 3.0                 | 2.3      | 2.7   |
| Others                            | 0.6                 | 0.5                 | 1.3      | 1.2   |
| Total                             | 2.2                 | 20.0                | 31.4     | 14.6  |

(Continued)
Table 15. (Continued).

| Household size | Less than 2 | 2–4 | 5–7 | More than 7 | Total |
|----------------|-------------|-----|-----|-------------|-------|
|                | 0.5         | 8.4 | 6.0 | 1.6         | 2.2   |
|                | 1.0         | 8.3 | 6.0 | 4.6         | 20.0  |
|                 | 4.3         | 8.3 | 8.3 | 10.6        | 31.4  |
|                 | 4.3         | 2.5 | 2.5 | 5.3         | 14.6  |
|                 | 0.2         | 9.9 | 10.1| 11.5        | 31.8  |
|                 |             |    |    |             | 100   |
| Fisher’s exact test | 189.244 | 29.1 | 27.0 | 33.5 | 100   |

A. A. AKANMUI ET AL.
5. Discussion of findings, conclusion and recommendations

5.1 Discussion of findings

Attempts to stem the spread of COVID-19, which is an infectious disease caused by a newly discovered coronavirus, have led to the emergence of various control measures by countries across the world since its declaration as a pandemic in March 2020. Nigeria, like other nations of the world, declared the lockdown measures with focus on Lagos State, Ogun State, Kano State and the Federal Capital Territory, Abuja, as epicentres where total lockdown was imposed by the federal government of Nigeria. However, the nature of the lockdown varied in other states of the federation. The lockdown measures include a halt in socio-economic activities, movement restrictions and imposition of curfew as people, excluding those in essential services, are confined into their various homes and places of residences.

The fallout of this lockdown includes rising concern for insecurity and crime-related activities in various neighbourhoods and societies across the country; hence, the attempt by this study to examine the pandemic and insecurity vis-à-vis in cities of fury in Nigeria.

As a result, the study revealed the socio-economic and demographic characteristics of selected respondents across the country that majority of residents have been living in their areas for more than 5 years and are familiar with safety and security issues in the area of study as more males whose daily earnings are the primary source of support for their dependants are found at homes and residences due to the lockdown. Unfortunately, many of this population are married with high literary level and engagement in varying socio-economic activities but were not gainfully employed as they earn below the N30,000 national minimum wage. Meanwhile, despite these low-income earnings, it was revealed that more than two persons live in a household which justified the possible concerns for safety and security during the COVID-19 pandemic lockdown measures in the country. These findings corroborate the findings of African Union (2020), Fasina et al. (2020), Oguntunde et al. (2018), Agbola and Ntamark (2017), and Zubairu (2017) which reveal that the majority of the Nigerian urban population are unemployed, live in poverty and engages in various socio-economics activities that spike insecurity and crime in various neighbourhoods across the country.

Also, the rate of occurrence of crime and insecurity incidences were at an alarming rate during the pandemic lockdown because some pockets of looting and gang violence, rape and sexual assault, public assault, public peace disruption, mugging, household-commodities’ related crimes, invasion or intrusion of privacy, property damage, burglary and housebreaking, vicious weapon attack, domestic violence, vehicle vandalism, brutality by law enforcement, extrajudicial killings among others were highly pronounced and there were records of physical and psychological abuse across all the socio-economic and demographic group in various communities during the pandemic lockdown measures in the country, Nigeria. The cases of kidnapping, farmers and herders crisis on cattle rustling, terrorism/extremism/banditry, commercial sex/professional escort, homicide/suicide, obstructing police/community vigilante and car hijacking were less pronounced. Worthwhile, the effects of the perceived physical and psychological abuses have brought about a predominant post-traumatic stress disorder (PTSD) to victims and thus, they are highly inimical as these posed serious threats including anxiety, nightmares, depression, intense emotional stimuli, delirium, psychosis, suicidality and other related symptoms to
the Nigerians. These findings corroborate and add to the findings of Bodrud-Doza et al. (2020), Boissay and Rungrcharoenkitkul (2020), Nicola et al. (2020), Shammi et al. (2020a), Tan et al. (2020), and Wang, Pan et al., et al. (2020a) and Wang, Pan et al. (2020b) that the COVID-19 pandemic and the introduced containment measures have sparked a socio-economic crisis, psychological and mental stress as well as community unrest and environmental well-being deprivation, particularly on security matters. In other words, Zhang and Ho (2017), Ho et al. (2020), and Soh et al. (2020) observe that the adverse effects of these psychological and PTSD symptoms during the global crisis could be best addressed and managed through the following: adequate provision of psychological provision of online tips and other related intervention supports to residents most especially the high-risk groups; provision and the use of improved standard screening and medical instruments based on smart technologies initiatives for medical practitioners and patients supports; evaluation and management of symptoms among patients; introduction to the use of online psychotherapy on video conferencing with meaningful cost-effectiveness such as cognitive behaviour therapy (CBT) to address the needs of the general populace through the sharing of challenges and proffering possible solution measures as well as strengthening the relationship between frontline health workers and community social service agencies with adequate support facilities and internet resources. All these would be geared towards providing counselling and medical supports to the public during global crisis.

It is also observed that causes and factors aiding insecurity and crime incidence include idleness, poverty, poor governance, poor community spatial arrangement, scarcity and depletion of household essentials, lack of palliative care and supports, restrictions on socio-economic activities, epileptic utilities supply and deprivation of daily income services among others. These findings corroborated the findings of Ehijiele (2020); Le, Dang et al. (2020); Shammi et al. (2020b), Tan et al. (2020), Tee et al. (2020), and Tran, Vu et al. (2020); Wang, Pan et al. (2020a), Wang, Pan et al. (2020b) and Xiong et al. (2020) that halt in business activities during the COVID-19 pandemic lockdown has rendered many penniless, in penury, homeless and unable to provide basic amenities for themselves.

With extreme difficulty with sleeping at night due to ranging continuous feeling of insecurity, and having experienced crimes or being crime victims before at different locations with untimely or epileptic rescue supports, residents and communities resulted to self-defence protection mechanism in their various homes and communities. The gradual easing of lockdown restrictions in the country on 4 May 2020 made some residents return to work after some stringent measures such as the use of nose cover in public places, washing of hands and sanitization were subsequently imposed to curb the spread of the virus. Indeed, the lockdown has hurt Nigerians and the Nigerian economy most especially in non-essential sectors that depend on daily income for survival in numerous ways and has also adversely affected the security of residents, businesses and community peace and well-being. The crime and insecurity experienced by residents during the lockdown undoubtedly led to severe consequences such as physical and psychological abuses, jungle justice on suspected criminal apprehended, use and abuse of drugs, low self-esteem, acts of violence, depression, feeling vulnerable, poor self-confidence and feeling of hopelessness. In other words, these findings are uncaptured
in the studies of Agbola and Ntamark (2017); Shammi et al. (2020a,2020b) and Bodrud-Doza et al. (2020), thus forming a contribution to knowledge.

This study resolves to improve security measures during any future lockdown through individual improvement of external illumination of their buildings and compounds, use of intelligent security devices in support of night guards or watchmen and use of security dogs, improved house locking system and the use of self-defence mechanism, e.g. cutlass, axe, plank, etc., as the main protective strategies for individual households, while community protection strategies involve the urgent introduction of gated neighbourhoods to Nigeria urban communities, use of smart and intelligent security devices, formation of vigilante groups, the introduction of local curfew at night, recruitment of local watchmen and traditional guards, community–police collaboration and local security alarms, etc., during lockdown (an unanticipated architecture of fear) as best possible linkages in addressing insecurity, crime and fear of crime across Nigerian communities. These findings are uncaptured in the available related literature such as the study of Agbola (1997); Agbola & Ntamark (2017).

5.2 Conclusion and recommendations

Nigeria, like other countries of the world, has over the years been experiencing a varying and worsening rise of insecurities and crime such as terrorism, banditry, extremists, political and ethnoreligious violence, rape, kidnappings, extrajudicial killings, etc. However, the growing cases in COVID-19, and being Africa’s biggest economy with a huge population, the national response led by the Presidential Task Force expectedly imposed and enforced lockdown regulations in compliance with global efforts. This lockdown has in no doubt yielded results in restricting the confirmed cases to 10,162 in Nigeria with 287 deaths recorded and 3007 recoveries, while the active cases were accounted at 6868 as of 31 May 2020, which, in contrast, has led to a pocket of emerging crime and insecurities across places of residences in the country. As such, pandemic lockdown in Nigeria has joined issues compromising safety and security most especially in urban centres, leading to wanton destruction of the economy, properties and lives. Hence, the study concluded that the persistent feeling of insecurity and crime incidence which prevailed in the country before the COVID-19 still persists and was consequently spiked at an alarming rate during the pandemic lockdown imposed. To ameliorate the agony related to crime and insecurities during emergencies and to sustain peaceful coexistence of residents in various communities in the country, the following is therefore recommended.

This study revealed as part of the new knowledge that Nigerian communities are no doubt characterized with unprecedented population increase with a high rate of unemployment and poverty, low quality of standard of living and concomitant prevalence of insecurity and crime that results in both human and communal unrest and national economic downturn before and during the emergence of the COVID-19 pandemic. It has also been found out that the majority of the sampled respondents were daily income earners of the urban population and equally rely on their daily physical engagements as a primary source and means of livelihood and survival not only for themselves but also their dependents. The study further revealed that the introduction of lockdown measure as a means of containing the spread of COVID-19 has brought about more socio-
economic havoc than good into various communities and thus making residents and communities furious and susceptible to the catastrophes of crime and insecurity. In other words, the effects of insecurity and crime occasioned by the lockdown measures have adversely impacted not only the socio-economic and psychosocial consequences of residents but also the downturn in economic welfare, health and well-being of the Nigerian communities.

5.3. Study limitations

The peculiar situations of Nigerian communities make it difficult to access information from a database that would have allowed for careful determination and obtainment of relevant data from a well-known population. Hence, the study was a constrained to use the only available option for data collection which undoubtedly hindered the ability to generalize findings for the populations. In other words, the online survey which, although includes one of the best methods for data collection with low cost and human physical stress from a large population sample, is posed with obvious limitations such as lack of supervision of data collection, biasness of self-reported questions and possible duplication of responses. Meanwhile, the high cost of internet data, poor power supply during the lockdown and lack of remuneration or compensation for completing the questionnaire constitute another major drawback for the study.

5.4. Policy implications

The sudden emergence and resultant effects of the COVID-19 pandemic is now a wakeup call to government at all levels to properly prepare for unforeseen circumstances with proactive and timely socio-economic policies such as planning and spatial development policy on uncompleted buildings and undeveloped lands that serve as hideout for criminals and promotion of renewable welfare support programmes for residents (such as conditional cash transfer to the vulnerable and affected residents). Others include introduction of appropriate measures and actions (such as neighbourhood lightning programme; community policing and neighbourhood watch system; regular patrol of law enforcement agencies in civilized and encouragement of best professional conducts) and establishment of functional and rapid emergency response system against security breaches and crimes. All these policy measures are capable of mitigating the consequences occasioned by unforeseen events are strongly advocated in Nigeria.

There is a need for urgent rejuvenation and advancement of the built environment with smart security measures across Nigerian communities as a means of preparedness for unforeseen events such as pandemic in Nigeria. Therefore, modern security and safety enhancement mechanisms such as street lightning system, surveillance camera, close circuit system and other safe city apparatus have to be installed at strategic locations in the neighbourhoods by local government councils in conjunction with state governments for real-time updates on efficient protection of lives and properties as well as early detection of crimes and security breaches.

 Provision of palliative care support for the citizen and profiling those who are day-income earners affected by the lockdown becomes necessary. In this respect, an efficient databank on the national human population has to be created and updated at all levels of
governments in the country. This shall go a long way in ameliorating the temporary and permanent havoc of the pandemic and equally help in having a functional database, particularly that of operators in the informal sector of the economy.

Also, the frustration and agony experienced on the epileptic supply of public utilities, facilities and services, particularly power supply, have to be addressed. The peculiarity of this period has afforded the community stakeholders, most especially governments, the avenue to reset the provision, maintenance and management of public utilities, facilities and services in the country. In the course of resetting the country, therefore, concise effort should be channelled to spatial reordering and total replanning of communities across the country to minimize security breaches through loopholes created by unsecured entries and exist; hence, the use of gated neighbourhood to suit modern reality has to be considered.

These recommendations and policy implications become indispensable in achieving sustainability and livability of cities and other human settlements in Nigeria as well as to protect sacred human lives now and in the future.

5.5. Areas of further research

Further studies could explore a comparative analysis on the incidence of crime and insecurity during and post COVID-19 pandemic; spatiotemporal analysis of insecurity and crime spot during the COVID-19 lockdown period; as well as the stakeholders’ perceptions on the strategies to ameliorate insecurity and crime incidences in case of any lockdown in Nigerian communities as areas for further research.

Disclosure statement

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