

ABSTRACT.

EFFECT OF COVID-19 PROTOCOLS ON HEALTH SECTOR ADMINISTRATION IN THE SOUTH EAST NIGERIA

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Health care administrators are faced with the daunting task of managing the health care industry. Their role has been severely affected with the onset of the 2019-20 crown infection pandemic, a ceaseless pandemic of corona infection ailment 2019 (COVID-19). In the wake of the pandemic, the World Health Organisation, regional and local health bodies adopted protocols to stop the further spread of the COVID-19 disease, such as social distancing, lockdown, boundary closures, physical distancing, and airport closures. A lot has been written on the impact of the pandemic on health workers in clinical areas. Attention has equally been drawn mainly on the impact of the pandemic on patient care and how the care of patients has been negatively impacted by the COVID-19 pandemic, but nothing has been mentioned about the health administrator, whose roles include ensuring that individual departments run smoothly, qualified employees are hired, information is disseminated efficiently, and so on. In an epidemic like this, it is difficult to gauge how badly the administration of the health sector has been hurt because there is no data to that effect. It is this lapse of information that this research has set out to fill. Therefore, this present study is aimed at the assessment of the effect of COVID-19 protocols on health sector administration with a view to identifying the unique challenges posed by the regulations aiming to prevent the spread of COVID-19 in the health sector administration in South East Nigeria.

Keywords: health administration, covid-19 protocols, lockdown, boundary closure, physical distancing, working from home (WFH), productivity

1.0 Introduction

Proper administration in the Nigerian health sector is very crucial to the sector's smooth running. Health care administrators are faced with the daunting task of managing the health care industry. Their tasks involve the management of human resources; management of financial resources; management of client care or patient care experience; management of health informatics; and overseeing compliance with medical and legal regulations and policies (Doyle, 2019). To

mention but a few. What a doctor is to a patient, a hospital administrator is to a medical facility. They oversee the organizational side of health services. Either working in a team or independently, they make sure a medical facility is employing effective and efficient practices that deliver the best care possible. Administrators have the largest role in a hospital. Their role has been severely affected with the onset of the 2019-20 crown infection pandemic, a ceaseless pandemic of corona infection ailment (COVID-19) released by a corona infection (SARS, CoV-2), recognized in Wuhan, China, in December 2019 and declared a pandemic on March 11th, 2020, 3 months after the initial detection of COVID 19. (Chen H. et al., 2020; Huang C. et al., 2020; Li Q. et al., 2020). In the wake of the pandemic, the World Health Organisation and regional and local health bodies adopted measures to stop the further spread of the COVID-19 disease. These protocols involved regulations such as social distancing, lockdown, boundary closures, physical distancing, and airport closures, which brought all business activities to a halt. To effectively comply with the regulations, business executives both in the public and private sector had to adapt their duties and obligations to comply with regulations which completely changed their operations. Institutions had to run remotely, partially or wholly. In order to keep the operation going, businesses were forced to move to work from home mode for their employees wherever possible (Meenakshi, 2020). All the sectors of the economy were affected. The health sector was among the list of essential services that were exempted from containment orders, yet the effect of the regulations aiming to prevent the spread of COVID-19, such as boundary closures and social distancing, with the associated insecurity and fear of harassment on transport routes, reduced activities also within these exempted services. The unique challenges posed by these regulations aiming to prevent the spread of COVID-19 introduced new dimensions to the way health administrators carry out their work. The stay-at-home orders across the country, the lockdown and border closure by the federal government restricted human and vehicular movements across the country. This brought a halt to physical management and board meetings and the cancellation of international conferences, with the intended effect on personnel migration and productivity. What will be the effect of airport closures on doctors whose training at times requires attendance at international conferences? At times, credit units are needed from these clinical trainings for continuing professional development, which is mandatory for renewal of a practicing license (Oleribe, 2016). What will be the effect of boundary closure on personnel migration, on staff whose work requires interstate movement, and employee productivity? These and other scenarios are presenting themselves for health-care administration in the aftermath of the pandemic, the effects of which will be felt for a long time. This study intends to proffer answers to these questions. Health administrators are not accorded their place in the sphere of operation in the hospital setting. Their duties are always being usurped by the chief executives, who, because they attend management seminars or take courses in management or administration, feel they can do the work of the administrator.

Healthcare administrators have a great responsibility for regulating service processes within clinical settings. However, this is often overlooked. The professionals who most often come to mind while thinking about health care are physicians, nurses, laboratory technicians, and radiologists. A lot has been written on the impact of the pandemic on health workers in clinical areas. Attention has equally been drawn mainly on the impact of the pandemic on patient care and how the care of patients has been negatively impacted by the COVID-19 pandemic, but nothing has been mentioned about the health administrator, whose roles include ensuring that individual departments run smoothly, qualified employees are hired, information is disseminated

efficiently, and so on (Bikoy, S. 2020). Consequently, the main objective of this paper is to assess the effect of COVID-19 pandemic protocols on the administration of the health sector in South-east Nigeria. The specific objectives are: (i) To determine the effect of physical distancing on board meetings; (ii) To ascertain the effect of airport closure on international conferences; (iii) To determine the effect of lockdown on staff training; (iv) To find out the effect of boundary closure on personnel migration; (v) To study whether there is a significant negative impact of working from home on employee productivity;

2.0 Review of Literature

The Concept of COVID-19 Coronavirus disease 2019 (COVID-19) is defined as an illness caused by a novel coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China. The first case of the novel strain of the Coronavirus was reported in Wuhan, China on November 17, 2019 (Lucero-Prisno et al., 2020) and ever since, there has been a world-wide exponential increase in the number of infections and casualties. COVID-19 is an infectious disease that causes respiratory illness with symptoms of cough, fever, and, in more severe cases, difficulty in breathing. This disease spreads primarily through contact when an infected person either coughs or sneezes openly, or when a person touches a surface or object and then touches the eyes, nose, or mouth. There have been a number of significant pandemics recorded in human history, such as smallpox, cholera, plague, dengue, AIDS, influenza, severe acute respiratory syndrome (SARS), West Nile disease, and tuberculosis (Piret J. and Biovin G. 2020). Recent years have seen at least six large-scale outbreaks: hantavirus pulmonary syndrome, severe acute respiratory syndrome, H5N1 influenza, H1N1 influenza, Middle East respiratory syndrome, and the Ebola virus disease epidemic. Each pandemic harmed human lives with increased morbidity and mortality. During a severe pandemic such as we have today, nations are affected economically, politically, socially, and culturally, facing disruptions that potentially lead to shortages, rapid price increases for staple goods, and economic stress for households, private firms, and governments. In Nigeria, all sectors of the economy were affected; the health sector, agriculture sector, manufacturing sector, finance sector, education sector, entertainment industry, aviation industry, the petroleum and oil industry and so on. The first confirmed case of the pandemic in Africa was reported in Egypt on February 14, 2020. The first confirmed case was reported in Nigeria on February 27, 2020, when an Italian citizen arriving in Nigeria through the Lagos Airport tested positive for the virus (Napoli & Nioi, 2020). However, there has been an increase in confirmed cases and consequent mortality. According to a report from the Nigeria Centre for Disease Control (NCDC), there have been 51,905 confirmed cases with 997 deaths (NCDC, 2020). Hence, its prevention is strongly recommended. The first doses of the COVID vaccine were manufactured in the second half of 2020 in limited quantities, with the wealthier nations having more access to the vaccine than poorer nations. According to the World Health Organization (WHO), preventive measures against this virus include frequent hand-washing for at least 20 seconds with soap and running water or using alcohol-based hand sanitizer; covering the nose and mouth with disposable tissue or flexed elbow when coughing or sneezing; avoiding touching of the eyes, nose, and mouth if hands are not clean; and avoiding close physical contact (1 meter or 3 feet), also known as social distancing (Ohia, 2020).

Coping with COVID-19

In a bid to control the spread of COVID-19, the World Health Organisation approved measures to curtail the further spread of the disease by restricting all forms of human movement and transportation through social distancing, lockdown, boundary closures, physical distancing, and airport closures. Various governments worldwide, including Nigeria, have had to respond by restricting movement and enforcing lockdown measures across different locations. The government ordered the cessation of all movements (Akwagyiram A. 2020). Various governments at different levels (local, state, and federal) enforced lock down measures across different locations, resulting in boundary closures. Meetings had to be held virtually, international conferences were cancelled, and productivity was affected as personnel migration was inhibited due to state boundary closures. To effectively comply with the regulations, business executives both in the public and private sector had to adapt their duties and obligations to comply with regulations which completely changed their operations. The surge has changed how businesses operate, with digitization and automation accelerating. In order to keep the operation going, businesses are forced to move to work from home mode for their employees wherever possible (Meenakshi, 2020).

Protocols for COVID-19

Travel ban:Part of the measures taken by countries across the world to restrict the importation of COVID-19 cases are bans on international and local travel and travel from locations with high caseloads. Nearly all countries in the world have introduced some type of restrictions on international travel since January 2020, with some applying very severe measures such as the banning of all travel in some destinations (ICEF monitor, 2020). By April 2020, there was still no easing of any restrictions on international arrivals introduced during the pandemic. Administrators were faced with the challenge of having to hold virtual meetings for the board as some board members were trapped in other countries, unable to come back. With the eventual ease of a travel ban, restrictions were put in place among countries. Travel from region to region within countries now requires negative COVID-19 test results. Arriving travellers are screened and quarantined in the process. (Wikipedia.org 2020).

Physical Distancing and Board Meetings

The board has an oversight function over the management while they delegate the management of the company/organisation to the executive management of the company on a day-to-day basis, and management is responsible for developing and implementing a company's overall business strategy. During a crisis, the usually defined line between the management and the board becomes blurred (Salako, S. 2020), which poses a challenge to the health administrator. The COVID protocols have changed how the boards communicate. But, unlike the rest of the workforce, these new ways of working may not carry over. Almost 40% of board directors think that their boards will still require in-person attendance at board meetings post-crisis. (Boardlist, 2020).

Airport closures and international conferences

International conferences were affected due to the rapid spread of the COVID-19 coronavirus as a number of destinations have travel bans in place. Many exchange programmes and planned conferences were cancelled due to the rapid spread of the COVID-19 coronavirus. International conferences have been affected (Evens R.G. 2020). Plans to continue studies abroad by international students have been affected. In the U.S., the number of international students fell for the first time during the 2019–20 academic year. More than half of the students (58%) do not see the value in paying for fees for an online-only experience (Pasari R. 2021). Doctors' training that requires attendance at international conferences has been postponed. Some schools are closing temporarily in an effort to stop the virus's spread, including in the US. Others are turning to online classes to maintain some alternate programming for students affected by closures, travel restrictions, or quarantines. The abrupt switch to online-only learning has been a big test for university executives and faculty. The Administrator must meet the challenge of ensuring that there is an adequate number of human resources for health. What will be the effect of the boundary closure on personnel migration, work, absenteeism, and overall employee productivity? These and many more are situations presenting challenges for health sector administration. (McKinsey, 2020).

Lock-down and Employee Training

The COVID-19 global health crisis disrupted work patterns in both private and public sector companies worldwide. One of the work areas most affected has been employee learning and development. Training can be on the job or before an employee is taken. Employee development consists of programmes that focus on the expansion of an employee's career (Sharon B. et al.). Organizational training, both locally and internationally, was severely affected by the pandemic crisis. Training organisations are developing new solutions in a short time to meet the demands of partners and to ensure that all responders can meet their learning and skills development needs. (WHO, 2020). The health sector administrator needs to think outside the box in order to design new coping strategies.

Working from home and employee productivity

The strategies employed to curb the spread of the disease involved all procedures to limit human interaction through physical distancing by enforcement of lockdowns, self-isolation, quarantine, border closures, as well as the shutdown of the various sectors of the economy (Obioma, 2020). Businesses and workplaces have to adjust their operations to a partially or wholly remote working environment. Meetings had to be held virtually. And since the coronavirus struck, working from home has become the de facto standard for most office workers. Cooley (2020) posits that in some cases, workers are becoming more efficient. As opposed to the work of Peasley, Hochstein, Britton, Srivastava, and Stewart (2020). The extensive survey of 869 teams and 11,011 workers in European countries demonstrates that remote working is not valuable for all employees, and team performance is even lower when team members work remotely. Disruption in working practices and behaviour brought by virtual working is posing a challenge to human resource managers as employees who have gotten used to staying at home now find it difficult to be in their offices at 8 a.m.

Past pandemic protocols

The history of pandemics is rife with examples of how the past informs the way health crises are responded to in the present time. In March 2020, the world went into lockdown, but similar measures have been used before in the history of pandemics, with effects that are not unlike those we are experiencing today under COVID-19. According to the historians of antiquity, one of the first measures implemented to fight a pandemic dates back to the Byzantine Emperor Justinian. He imposed isolation for both travelers and food coming to Constantinople from North Africa, hit by the terrible plague outbreak (541–542 A.D.). (Tognotti E., 2021).

The bubonic plague of the 14th century Over the centuries and up to COVID-19, every pandemic has led to a limitation of rights and freedoms, although to varying degrees. The responses to public health emergencies have evolved and adapted throughout history. But it is really the bubonic plague of the 14th century that set a precedent in the elaboration of a coherent model, which was then perfected in the following centuries. Given the lack of medical efficacy at the time, the only way to keep the plague under control and to limit its spread was a complex and articulated system of quarantines (quarantine stations in isolated little islands, in mainland buildings or in ships at anchor for maritime travelers), cordons sanitaires, the isolation of the contaminated in lazarets, fumigation and disinfection, and the regulation of social categories at risk. Freedom of movement was only granted to those who obtained "a sanitary certification" from the authorities. (Tognotti E., 2021).

Cholera outbreaks in Europe in the first half of the 19th century: In times of plague or cholera, those who entered the cities were obliged to present a "health certificate" ("Patente di sanità") to the authorities. The idea is not too different from today's EU Digital Green Certificate. These measures, although with some adaptations, were also put in place during the yellow fever epidemic in the US at the end of the 18th century and the cholera outbreaks in Europe in the first half of the 19th century. Isolation, separation, and social control were key tactics during major epidemic emergencies. Through a reorganization of the urban space, the healthy and the sick were separated. Hospitals, lazarets, and "isolated areas" became familiar territories for those who had come into contact with the infected or who had come from a contaminated place. The houses where plague cases broke out had to be seized and supervised by armed guards. No one could enter or leave, apart from priests, midwives, and doctors, who generally entered homes covered in a large waterproof hooded tarpaulin, long sleeves, gloves, and boots. During a cholera outbreak, rooms and objects belonging to the sick had to be disinfected with chlorine fumigation—a practice that is not unlike our daily sanitizing habits in the time of COVID-19. The sanitary regulations of the Kingdom of the Two Sicilies, put in place to deal with the cholera pandemic of 1835–36, called for the closure of boarding schools, monasteries, convents, prisons, and military lodgings. Convening in the streets was prohibited. The rules of safety and urban control were tightened on inns, taverns, and accommodation of any kind. A curfew was also introduced: no one could move around the city at night. If a person had to do so out of necessity, they were obliged to move about with a lit lantern. Quarantines, sanitation, and other protective measures were also implemented in Russia, Great Britain, and the United States during the second cholera pandemic (1826–37)(Tognotti E. 2021).

Local authorities responded to the increasing mortality numbers during the second wave of the 1918–19 influenza pandemic by imposing a wide range of NPIs (non-pharmaceutical interventions). These measures included isolation or quarantine; bans on public gatherings; staggered business hours; ventilation of public venues and streetcars; the use of face masks; and school closures (Ager P. et al., 2021).

During the polio outbreak of 1918, people left cities for resorts; movie theatres were closed for lack of customers; groups canceled meetings; and public gatherings dwindled. Children avoided swimming pools and public water fountains, fearing that the disease was transmitted through water. Whatever the therapeutic merit of this, these actions required no force; they happened because people do their best to adapt to risk and be cautious. In 1949, the new polio epidemic appeared and swept through selective population centers, leaving its most tragic sign: children with wheelchairs, crutches, leg braces, and deformed limbs. Throughout the country, the quarantining of the sick was deployed in a limited way as one medical response. There were some shutdowns. Public health officials imposed quarantines (used to separate and restrict the movement of well people who may have been exposed to a contagious disease to see if they become ill) on homes and towns where polio cases were diagnosed. (Turker J,A 2020)

Efforts to impose "social distancing" were selective and voluntary. In an earlier 1937 outbreak in Chicago, for example, the superintendent of schools (not the mayor or governor) closed the public schools for three weeks and encouraged learning from home. In many localities, when there was an outbreak and depending on the level of fear, bowling alleys and movie theaters were closed, but not by force. Church services were cancelled sporadically, but not by force. The churches themselves were never shuttered. In Minnesota in 1948, the state board of health cautioned against going ahead with the state fair. It was canceled. In 1950, James Magrath, president of the Minnesota state board of health, warned against large gatherings and regretted how much people persisted in gatherings of children. This experience repeated itself in most places in the country where there were outbreaks. City councils would encourage the following of the directives of the National Foundation for Infantile Paralysis (later the March of Dimes), which circulated a list of "polio precautions" for parents to follow. Some towns and cities in the U.S. tried to stop the spread of polio by temporarily closing swimming pools, libraries, and movie theaters, but not restaurants or barber shops. This was mostly done to match the fear and confusion of the public. Turker J.A. (2020)

Health administration

The health team is comprised of several professionals. This includes clinical and non-clinical staff. The clinical staff are categories of healthcare professionals which include doctors, nurses, pharmacists, physiotherapists, laboratory scientists and technicians, anesthetic technicians, dental technologists and technicians, radiographers, occupational therapists, and various categories of medical technicians and technologists. S. Heath (2018) The administrative and management staff include secretaries, accountants, clerical officers, finance and pension staff, human resource managers, lawyers in the legal department, and so on (WHO, 2018). They have training in various aspects of administration, management, catering, transportation, security, and in larger

hospitals, staff in charge of biomedical engineering, maintenance, and building. Administrators have the largest role in a hospital. They oversee the organisational side of health services. They ensure that the team of health workers employs effective and efficient services that ensure the most effective service delivery in the health care system. (Adeleke J.A., 2017) It has become clear that skilled management is essential for a hospital to work well. The Nigerian health care system is greatly underserved in the health care sphere. Health facilities (health centres, personnel, and medical equipment) are inadequate in the country, especially in rural areas (Osain, 2011). The Nigerian health system is plagued by low level synchronization, fractured mileages, and limited resources, as well as an unequal distribution of health workers; an unstable economy; gross underfunding; corruption; brain drain; and a slew of other issues (Hargreaves, 2002). The health administrator in Nigeria's health sector is faced with these challenges whose impact is escalated by the pandemic and its presenting protocols designed for the containment of the disease.

Empirical Review

Roland G. and Moleki M.M. (2016) did a study on "Healthcare Administration: a Systematic Literature Review". The objectives of the study were to promote the significance of the health care system administration within the community and to identify key up-to-date aspects in relation to the health care system administration today. A systematic literature review was conducted. An initial 200 research-based articles were identified for this review. After critical assessment, only ten publications met the inclusion criteria. All the ten chosen had high levels of credibility because they had excellent standards and methods used to generate their findings. The critical assessment approach was used to assess the quality of the selected research. (Wehbe et al., 2013). Articles meeting inclusion criteria were subjected to a critical interpretative synthesis process. Additionally, discourse and textual analysis techniques were used to analyse common content. Findings: The result of the analysis revealed that health care administrators have a responsibility to improve the process of health care by managing complicated and complex organizational issues. They are also expected to implement the policies, technologies, and evidence-based practices required to improve health quality-assurance services. Additionally, they are accountable for the training of health care professionals and the application of cost-effective strategies.

Edward C. J. studied the impact of coronavirus 2019 on training and well-being in subspecialty surgery: A national survey of cardiothoracic trainees in the United Kingdom. The study sought to establish the impact of the COVID-19 pandemic on the well-being, practice, and progression of all trainees in cardiothoracic surgery in the United Kingdom. A 31-item questionnaire was designed, validated, and disseminated via e-mail and an instant-messaging platform. Results showed that in total, 67 (88%) of respondents were concerned about the impact on their training, and 54 (71%) felt that the deviation may require an extension in their planned training time. (Edward, J. et al., 2020).

In their article "Does Remote Work Improve or Impair Firm Labour Productivity?" Monteiro et al. explored whether remote work increases labor productivity or not. They used rich sample data from Portuguese firms over the period 2011–2016 to empirically determine the effect of remote work on productivity. They used "a longitudinal panel dataset of firms in a sample that is

representative of the whole economy, including manufacturing and services industries," to broaden the analysis scope. According to the findings, remote work affects average productivity negatively, which may depend on the "substantial degree of heterogeneity across different categories of firms." They claimed that non-exporting small firms with below-average skill level employees are more inclined to be negatively affected by remote work (Monteiro et al. 2019).

3.0 Methodology

Research Design

The study is a descriptive study.

Area of Study

The study- the effect of COVID-19 on health sector Administration was carried out in the South-East Nigeria. The South-East is comprised of five states- Enugu, Anambra, Abia, Imo and Ebonyi States. The federal teaching hospitals situated in the five states that make up the zone were studied. The choice of the study area was to make for uniformity that will enable objectivity in comparison.

Population for the Study

The population of this study comprised Administrative officers in the Federal teaching Hospitals located at the five states of the South-East.

Sampling Techniques

The minimum sample size is two hundred and thirty-five (235). Two hundred and thirty-five (235) questionnaires were distributed across the five tertiary health facilities in the South-East. The simple random sampling method was used to collect the data. Any of the respondents who consented was interviewed until the proposed sample size was reached.

Method of Data Analysis

200 number valid questionnaire were collected and used for the analysis. Data collected for this study was analyzed using Statistical package for Social Scientists (SPSS). The Analysis of Variance (ANOVA) statistical method was used to analyze the collected data and the hypotheses formulated.

Results

Table 4.2: Socio – Demographic Characteristics of Respondents

Variables	N = 200
Gender	
Male	112 (56)
Female	88 (44)
Highest Level of Education	
PHD	0 (0)
Masters Degree	70 (35)
BSc/HND	109 (54.5)
OND	21 (10.5)
Marital Status	
Married	147 (73.5)
Unmarried	35 (17.5)
Divorced	7 (3.5)
Widowed	11 (5.5)
Grade Level (CONHESS)	
Directorate cadre	53 (26.5)
09-13	69 (34.5)
07-09	78 (39)

Source: Field Survey, 2021

From the Table 4.2, it could be observed that 112 (56%) of the respondents were males, while 88 (44%) were female. Therefore, majority of the respondents were females. It can also be seen from the table above that 147 (73.5%) respondents were married, 35 were single while 7 (3.5%) were divorced. Therefore majority of the respondents were married 147 (73.5%). 21(10.5%) of the respondents were OND holders, 70 (35%) respondents have their master's degree. Therefore, majority of the respondents are BSc degree holder 109 (54.5%).

Test of hypotheses

Decision Rule: (Rule a): Accept H_0 and Reject H_1 if critical value $F > 0.05$ and calculated value $F < 0.05$, under the critical condition alpha $\alpha = 0.05$ level of significance. (Rule b): Reject H_0 and Accept H_1 if critical value $F < 0.05$ and calculated value $F > 0.05$, under the critical condition alpha $\alpha = 0.05$ level of significance.

Hypotheses I

We restated Hypothesis I in Null Hypothesis (H_0) and Alternative Hypothesis (H_1) forms as follows:

H_0 : Physical distancing has no significant effect on Board meetings.

H_1 : physical distancing has significant effect on Board meetings

Table 1 Testing Hypothesis I

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	32792.4	4	8198.1	5.955036	0.00119	2.689628
Within Groups	412300	30	1376.667			
Total	74092.4	34				

Source: Author's computation using Microsoft real stat toolkit 2015

The analysis of variance conducted at 5% level of significance showed that the F-calculated (5.955036) is greater than the F – critical (2.689628). This is further supported by the probability value of 0.00119, which is less than 0.05, indicating significance of F-test. We therefore reject the null hypothesis and conclude that physical and social distancing method of control of spread on corona virus during lock down significantly effects board meetings in the health sector.

Hypotheses II

We restated Hypothesis II in Null Hypothesis (H_0) and Alternative Hypothesis (H_1) forms as follows:

H_0 : Airport closure has no significant effect on international conferences

H_1 : Airport closure has significant effect on international conferences

Table 2 Testing Hypothesis II

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	72277	4	18069.21	5.187036	2.73E-16	2.578739
Within Groups	15675	26	348.3333			
Total	87952	30				

Source: Author's computation using Microsoft real stat toolkit 2015

The analysis of variance conducted at 5% level of significance showed that the F-calculated (5.187036) is greater than the F – critical (2.578739). This is further supported by the probability value of $2.73E-16 < 0.05$ (ie 5%), which is less than 0.05, indicating significance of F-test. We therefore reject the null hypothesis and conclude that airport closure has significant effect on international conferences for staff in the health sector.

Hypotheses III

We restated Hypothesis III in Null Hypothesis (H_0) and Alternative Hypothesis (H_1) forms as follows:

H_0 : The extent to which lockdown affects training is not significant.

H_1 : The extent to which lockdown affects training is significant

Table 3 Testing Hypothesis III

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	46015.2	4	11503.8	16.13527	119E-16	2.75871
Within Groups	1782	25	348.3333			

Total 63839.2 29

Source: author's computation using Microsoft real stat toolkit 2015

The analysis of variance conducted at 5% level of significance showed that the F-calculated (16.13527) is greater than the F – critical (2.75871). This is further supported by the probability value of $119E-16 < 0.05$ (i.e 5%), which is less than 0.05, indicating significance of F-test. We therefore reject the null hypothesis and conclude that lock down significantly affects staff training in all the five tertiary health institutions.

Hypothesis IV

We restated Hypothesis IV in Null Hypothesis (H_0) and Alternative Hypothesis (H_1) forms as follows:

H_0 : Boundary closure has no significant effect on personnel migration

H_1 : Boundary closure has significant effect on personnel migration

Table 4 Testing Hypothesis IV

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	17252.2	4		4313.05	4.016324	0.011911
Within Groups	1782	25	1073.88			
Total	44099.2	29				

Source: author's computation using Microsoft real stat toolkit 2015

The analysis of variance conducted at 5% level of significance showed that the F-calculated (4.016324) is greater than the F – critical (2.75871). This is further supported by the probability value of 0.011911, which is less than 0.05, indicating significance of F-test. We therefore reject the null hypothesis and conclude that Boundary closure has significant effect on personnel migration.

Discussion of Findings

The goal of the present study was to determine the effect of COVID-19 pandemic protocols on the administration of the health sector in Southeast Nigeria. The result showed that physical and social distancing regulation employed during the lock down significantly affects board meetings in the health sector and the effect is statistically significant. This finding is in conformity with the findings from the Boardlist survey (2020) of the community of board directors to understand the implications of COVID-19 for their boards. The result showed that boards' meetings have been affected by physical distancing. Further findings showed that airport closures have a significant effect on international conferences, and the result is statistically significant. This result aligns with the global survey carried out by Marinoni, G, Hilligje van't Land, Trine, and Jensen, T. (2020). G. Marinoni, et al., on the impact of COVID-19 on higher education around the world in 109 countries. The results show that the most common impacts of COVID-19 have been the cancellation of international travel at 83% of higher education institutions (HEIs) and the cancellation or postponement of scientific conferences (81% of HEIs), which resulted in conferences being held online.

Further findings indicate that lock down significantly affects staff training. The result of this study, which revealed that lockdown negatively affects staff training, was statistically significant and was compatible with that of Edward J. et al. (2019). Their study showed that staff trainees have been impacted by the lockdown. In addition, it was found that boundary closure has a significant effect on personnel migration, and the effect is statistically significant. This research finding was in tandem with the study by KPMG. According to the study, the effect of the regulations aiming to prevent the spread of COVID-19, such as boundary closures and social distancing, with the associated insecurity and fear of harassment on transport routes, discouraged employees who work in the exempted services, like the health care industry, from going to work.

Likewise, the results showed that there is a significant negative impact of remote work/working from home (WFH) on employee productivity, and the effect is statistically significant. The result agrees with the findings of Monteiro et al. (2019) that working from home decreases productivity. Some authors have contradicting views; the works of Aghaithi (2020) and Kazekami (2020) showed a positive correlation between telework hours and productivity.

Conclusion

In conclusion, the purpose of the study was to assess the effect of the COVID-19 pandemic on the administration of the health sector in Southeast Nigeria. The findings of this study suggested that COVID-19 protocols - Physical Distancing, airport closure, lockdown, boundary closure, and remote work - had a significant impact on health sector administration in the South-East. The study concluded that COVID-19 is both a global health crisis and an international economic threat. The duration and impact of the current pandemic is, as yet, uncertain. The measures that were implemented and mandated to curb the spread of the virus generated a wide array of unique and fundamental challenges for the health sector administration. Given the uncertainty and breadth of the COVID-19 shock, human resource managers and organizational leaders must act quickly to apply current field knowledge to managing the current situation. The bottom-line is

that the COVID-19 Pandemic is changing the nature of work as we know it, and many of these changes are likely to remain long after the virus is extinguished.

Recommendations

The following recommendations are proffered based on the findings of the study:

The boards should embrace technology. Working methods have fundamentally shifted, and boards should be encouraged to think about the right role for technology in their non-wartime processes. A diverse board with a wide range of skills and expertise should be encouraged. The federal government, in appointing board members, should put into consideration their qualifications and expertise.

2) In the changing world of the global pandemic, resilience, flexibility, and adaptability are critical overcoming strategies. Staff whose planned training may require extension due to cancellation of international conferences, for example, resident doctors should be given a paid extension and the policy should be included in the Ministry's training module.

3) A routine plan is highly recommended while working from home during this pandemic. Everything should be scheduled in an effective manner. If you are following a routine plan, then it requires proper time management as well. Local, federal, and state leaders should step up with solutions like putting Wi-Fi on buses and making internet subscription allowances part of staff pay, as well as retraining staff on what they need to know.

4) One of the most important things that virtual teams should do is set up structures to reduce conflicts, improve communication, align teams, and make sure that information is processed in a safe and thorough way.

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