



## Depression during Covid-19 Pandemic among Adult Members in a University Community in Nigeria: A Mixed Methods Survey

Happiness A. Elufidipe-Olumide

Department of Human Kinetics and Health Education, University of Nigeria, Nsukka

Ngozi Christian

Department of Science Education, University of Nigeria, Nsukka.

Samson O. Agbaje

Department of Human Kinetics and Health Education, University of Nigeria, Nsukka.

Christopher Ngozi Aguocha

Department of Human Kinetics and Health Education, University of Nigeria, Nsukka.

### Abstract

*COVID-19 Pandemic necessitated implementation of restriction measures such as self isolation or social distancing. These measures unprecedentedly increased the risk of mental health problems, such as depression among diverse population. Thus, the study investigated the potential correlates of COVID-19 experience and relative depression among a sample of Adult members in a university community in Nigeria. Two research questions and a hypothesis guided the study. The research methods adopted was Mixed Methods sequential explanatory design. The sample of the study is 183 respondents. A structured questionnaire and an structured interview guide were used for data collection. The instruments were developed by the researchers and validated by three experts. The internal consistency reliability coefficient was determined using Cronbach Alpha statistics and Reliability of 0.84 was obtained. Data was analyzed using mean and standard deviation and Pearson moment correlation coefficient was used to test the hypothesis. Meanwhile, qualitative data was analyzed using content analysis. Result showed a positive correlation between the COVID-19 pandemic and the occurrence of depression among adults [ $r = 0.715$ ;  $P < 0.0001$ ]. The study showed that the experience of the covid-19 pandemic is associated with depression among adults in the university Community, of the University of Nigeria, Nsukka. The findings derived from content analysis on qualitative data showed re-emerging themes of depression linked to financial difficulty, letdown in educational expectancy, strained family relationships and access to health care services related to COVID-19 outbreak. There is need for urgent intervention through financial aid and public healthcare by the government.*

**Keywords:** COVID-19 Pandemic, Depression, Adults, Mixed method, Qualitative

### Introduction

During the month of March 2020, World Health Organization affirmed the COVID-19 epidemic a worldwide pandemic and that COVID-19 is triggered by SARS-CoV-2, which is a modification of Corona virus. As of the 6th of April 2020, further than 1,244,421 cases have been detected globally, with over 68,976 victims (GOV.UK, 2020). COVID-19 is considered a respiratory virus that is spread by large respiratory droplets and direct contact with infected secretions. (WHO, 2020). Symptoms of the infection are frequently non-specific, and include fever, cough, and Myalgia, with diarrhoea, with or without the subsequent development of dyspnoea (Chan et al., 2020). Severe cases with respiratory distress, sepsis, and septic shock had need of intubation and intensive care treatments (Wang et al., 2020). In order to avoid the spread of the virus, various governments of the world adopted preventive measures such as self isolation, social distancing and economic lockdown. This was done with the intents of slowing down the spread of the virus and to save or ensure the survival of the human society from the plague of the present time. Lockdown or social distancing is not pleasurable, but everyone has to cooperate with the government in order to survive.

In response to current policies of self isolation and the lockdown, people became disturbed because they can no longer engage into what shields them financially. To make matters worse, some individuals have become unemployed because of the economic downturn attributed to the COVID-19 pandemic, it was said that about 22 million people lost their Jobs in the United States of America such that President Donald Trump declared the situation a state of emergency meanwhile in South Africa the unemployment rate soars to 30%, in the interim some others argue that about 7 million stay jobless, (Washington Post, 2020; AS English, 2020). Issues of Job insecurity

associated with the lockdown keeps the working class worried, and the extent of financial collapse has made some parents develop high blood pressure (Hackett, 2020).

Some companies instead of retrenchment, adopted the no work and no pay policy, which has become the trend (Biz Community, 2020). Meanwhile, the no work and no pay principle has been on air amidst the COVID-19 lockdown; with a great deal of confusion encircling the legalities. When it comes to companies paying their employers, some employers argue that it is legally correct to implement the no work and no pay principle to their workers (Myhill, 2020). This has become worrisome to many workers and even the small scale business owners has exhausted their capital in a fight against hunger. The adult members of UNN community would not appreciate staying idle at home but the event of the lockdown has necessitated their stay at home to face hunger and the depression associated with it.

In Nsukka, after the government enforced the self-isolation and partial halt of commercial activities, a circular to that effect was issued by the Ministry of Education on March 19<sup>th</sup> 2020 concerning the closure of all schools. This was implemented by the University authority in the University of Nigeria, Nsukka as well as public and private firms, the public markets such as Ogie market, Ikpa market, building material market and Mechanic Village, hence the market was expected to operate from 7am - 4pm from Monday to Friday leading to a rise in tension in the times of the economic lock down (Pulse Nigeria, 2020).

Furthermore, the lockdown affected people from different walks of life including the adult members of the university community who should be engaged in one form of business transaction or another. It also affected artisans such that some of them do not go to their workshops and as a result live on their meager resources, many privately employed individuals remained unpaid for a period of at least six months, students were sent home and finds it difficult to cope with their inability to achieve their academic pursuits within their proposed timeline, civil servants such as teachers, academic and non-academic staff were largely at home facing one challenge or the other.

Meanwhile, several attempts has been made to produce a lasting cure to the virus of the COVID-19 pandemic but to no avail, such as recommendations of the Madagascar about their Herbal drugs, which was largely criticized by the World Health Organization, health officials in China have started encouraging an alternative type of medicine to help those with the infections but it was alarmed that there is not enough data on herbs and COVID-19 (Ries, 2020). In February 13, 2020, the Nigerian government promised a financial reward of about 30 million Naira on any medical practitioner who could develop an effective vaccine or cure for the disease yet the problem was not resolved (NAN, 2020).

Since it has not been possible to provide a cure to the infections, attempts are made to prevent the spread of the infection further into the Nigerian society, by preventing individuals from crossing the border and gaining access to the country. The efforts to curtail the spread of the virus failed woefully, the inter-state border lockdown proved abortive because movement was still observed between states and across country (Twomey, 2020; Orjinmo, 2020). Provision of isolation centres was observed in every state or city of the Nigerian federation, Nsukka and Enugu locality was not an exemption, the yet rise in figures of infected persons appears on the media on daily bases. The news of COVID-19 in the locality created some sought of widespread panic among the populations in the Nsukka Municipality, it was reported by the Guardian newspaper (2020) that the Rivers state government accuses the Nigerian medical Association of creating widespread panic; such that individuals across the country engaged into panic buying (TVC News Nigeria, 2020). Many people were worried and bought chloroquine and submitted to self medication, the rise in panic is also the biggest danger associated with the COVID-19 pandemic such that it could lead people to take wrong actions (Odubanjo, 2020). The rate of tension among the elderly was relatively growing as radio jingles further expresses the reality of the virus as well as the risk of infection in the locality owing to careless inter-state movements.

There was an increase in the rate of the deaths in the society, many were died being fully aware of the disease while others passed on without knowing the cause of their illness, in most cases it was ignorantly considered as Malaria. This is because the COVID-19 pandemic shares similar symptoms with malaria coupled with the fact that the testing kit did not arrive on time in order to medically and scientifically identify affected persons. At the end of the day, more people died of hunger than the disease since they could not afford to survive the period.

The covid-19 pandemic affected the global society, Nigeria and Enugu state was not an exception, in fact it was reported that there were rumored instances of depression among the people upon getting news of the infected persons in Nsukka, the Lockdown accompanied by feelings of depression affected the populations operations in Nsukka Markets, offices and schools. Existing literature suggests that a key risk factor for both anxiety and depression is perceived isolation (Santini et al., 2020). In a situation where isolation is enforced by the government, it may be argued that depression is thus institutionalized.

Incidentally, if the problem is not addressed individuals may rise to protest against their inconveniences for instance it was reported by the CNN (2020) that protesters clash with police in northern Italy as anger mounts over COVID-19 restrictions and in response the government was reported to unveil lockdown relief package (Guardian, 2020), however the BBC (2020) narrates that hundreds are reported to protest against the localized Madrid lockdown, meanwhile arrests were made in London against anti-lockdown protesters. The BBC (2020) narrates that in Ivory Coast, protesters destroyed a testing centre built in Abidjan, in the meantime Dahir, (2020) reports that hundreds of protesters rallied against the Kenyan government on the implementation of COVID-19 lockdown policies on 8 May 2020, thus these events further creates health risk, in Nigeria, people would be afraid of communicating with each other, others would prefer to be alive and sick as infected persons rather than die to hunger, however the same scenario occurred in Malawi, as a court temporarily prevented the government from implementing a 21day lockdown procedure as the citizens protested and sought legal redress (Orjinmo, 2020: Aljeezira, 2020).

Everybody would feel the consequence of the lockdown, the rich and the poor equally. Inactivity for months would cause boredom and economic downturn; people who are affected with hunger, pressures at home among others would become victims of psychological issues. However, it was argued that the outcome of the outbreak could deepen the divide between the rich and the poor; further reinforcing class contradiction as well as the emotional problems attached to poverty such as depression (Bubola and Fisher, 2020: Leonhardt and Thompson, 2020). In fact, health experts from the University of Washington warned that there could be an interconnection between finance and depression and therefore points that depression could make some individuals to engage into deaths of despair such as suicide, alcoholism and violent attempts to the point that individuals and homes would lose their loved ones (Bubola and Fisher, 2020).

This was identified an unsatisfactory state of affairs as the events of the Covid-19 lockdown unfolds, more importantly is the possibilities of depression associated with the scenario, because it is such that affects the wellbeing of the people. This has necessitated the study to examine issues of depression in adult members of the University community, as influenced by the socio-economic restrictions imposed by the covid-19 outbreak.

#### **Purpose of the Study**

1. To ascertain the relationship between the experience of the Covid-19 Pandemic and the occurrence of depression among adult members of the University Community.
2. To explore the issues of worry experienced during the COVID 19 Pandemic.

#### **Research Questions**

1. Is there a significant relationship between the experience of the Covid-19 Pandemic and the occurrence of depression among adult members of the University Community?
2. What are the issues of worry experienced during the COVID 19 Pandemic experience?

#### **Hypothesis**

H<sub>0</sub> There is no significant relationship between the experience of the Covid-19 Pandemic and the occurrence of depression among adult members of the University Community

#### **Methodology**

Mixed methods sequential explanatory design was adopted for the study, hence, quantitative data are collected and analyzed first, then the qualitative collected and analyzed to help explain quantitative data (Shorten and Smith, 2017). The area of the study is University of Nigeria, Nsukka. It is a federal university located in the heart of Nsukka, Enugu State, South East, Nigeria. The university is academic environment renown for research and knowledge creation. The area is inhabited by students when in session, academic and non-academic staff. The staff housing quarters are located in the various ends of the university. The area was chosen for the study because there are many adults resident in the community. The population of the study cannot be defined because of dearth of record of all the adult population in the community. However, a sample size of 183 respondents was used for the study. 175 respondents responded to the questionnaire while 8 subjects responded to the structured interview. Purposive sampling technique was employed because it produces a sample that can be logically assumed to be representative of the population. This is done by applying expert knowledge of the population to select in a nonrandom manner a sample of elements that represents a cross-section of the population (Dudovskiy, 2012). COVID-19 restrictions played a major role. The instrument for data collection was a structured Questionnaire for the quantitative and structured interview schedule for the qualitative study, both were validated by three experts, two from Human Kinetics and Health Education and one from Measurement and Evaluation in the Faculty

of Education. The instrument was trial test for determining the internal consistency was carried out on 20 respondents (12 males and 8 females) outside the university community (Odenigwe area). The reliability was determined using Cronbach alpha method and 0.84 was obtained as the reliability coefficient. 180 copies of the questionnaires were administered to the respondents and 175 were returned. Data collected by Scheduled interviews from the 8 respondents were recorded by audio. These recordings were transcribed into a written form, which is an interpretive process. Transcriptions were detailed to capture the tone of voice and emphasis (Bailey, 2008).

Qualitative data was analyzed using Pearson moment correlations coefficients to test the hypothesis at a .05 level of significance. The qualitative data derived from the interview schedule was analyzed using content analysis. Content analysis is a tool used for categorizing or “coding” words, themes, and concepts within texts and then analyzing the results. (Luo, 2019) from qualitative data derived from interviews, written open questions and pictures (Bengtsson, 2016), and used to determine psychological or emotional state of persons or groups (Columbia Public Health, 2021). Four distinct main stages were used in this analysis including; the decontextualisation, the recontextualisation, the categorization, and the compilation (Bengtsson, 2016). Decontextualisation involved familiarization with the data and reading through the transcribed text and break them down into smaller units (meaning unit). This is the coding process and should be performed repeatedly, starting on different pages of the text each time to increase the stability and reliability (Downe-Wambolt, 1992). Recontextualisation involved checking whether all aspects of the content have been covered in relation to the aim (Burnard, 1991). The original text was re-read alongside the final list of meaning units. Categorization; categories were created by condensing the extended meaning units. This was done by reducing the number of words without losing content of the unit (Graneheim & Lundman, 2004). In the categorization process, themes and categories were identified. Inductive approach (from specific observation to broad generalization) to enable our findings to emerge from the most frequent and dominant themes in the raw data. Compilation; at this point, the analysis and writing up process was started and completed. To strengthen the validity of the study, respondents validation was performed, presenting the results to the informants in order to achieve agreement (Burnard, 1991, Catanzaro, 1988).

## Results

### Quantitative Data

**Table 1 showing the Correlation Matrix on the Experience of Covid-19 pandemic and Depression**

Variables	Mean	Std deviation	N	Pearson r	Sig.
Covid-19 Experience	3.4581	.52415	175	.715	.0001
Depression	3.5562	.43716	175	.715	.0001

The table 1 shows the Pearson moment correlation coefficient, to define the direction of relationship between the COVID-19 Pandemic and the occurrence of Depression among adult members of the University Community. The Table shows that there exists a high positive correlation between the experience of COVID-19 and the occurrence of Depression in the University Community in with a Pearson  $r(r= .715; P<0.0001)$

### Qualitative Data

The information collected from the scheduled interview was such that gave the respondents the freedom to answer the questions based on their discretions. However, from the study most respondents expressed the issues of Depression as associated with conditions of Financial difficulty and Educational lapses and poor healthcare services.

### Summary of findings

- There exists a significant relationship between the experience of the Covid-19 Pandemic and the occurrence of depression among adult members of the University Community.
- Issues of worry on finance, education, family relationship and access to healthcare were the re-emerging themes from content analysis findings.

### Discussion of findings

#### Quantitative data

The findings of the study observed that there exists a positive relationship between the Covid-19 experience and the occurrence of depression among populations in the university of Nigeria, since the  $r$  values of the study is at .715 which is above the .50 benchmark, it was concluded that there exists a high positive correlation.



In assessing the reliability of the correlations coefficient as well as in testing the hypothesis, we find the P. value to be .000 below the .05 benchmark, thus, we reject the null hypothesis and accept the alternate hypothesis we conclude that there is a statistically significant relationship (correlation) between the Covid-19 experience and the occurrence of depression among adult members of the university community in the university of Nigeria, Nsukka. The objective of the study was fulfilled by ascertaining the direction of relationship between the experience of the Covid-19 Pandemic and the occurrence of depression among adults in the university community, and the facts available provides a good information that since COVID-19 pandemic has ripple-effects in the income level of individuals it could induce matters of depression when they are financially constrained hence justifying the findings of Bubola and Fisher, (2020) National Health Service UK (2018), Dunn Inskip and Cooper on an existing positive relationship between money problems and mental depression. The study argues on restrictions to certain things such as education, free access to consumption of market products as well as engaging in work activities by the COVID-19 lockdown and isolation makes individuals feel unhappy and acts as the correlates of depression which justified the arguments of Velde, Bracht and Buffel (2017), McGree (2015) and Financial Express (2020). Furthermore, lower income, economic volatility, and financial hardship are strongly associated with adverse mental health outcomes such as depression and suicide (Karanikolos et al., 2013; Nandi et al., 2012).

### Qualitative data

#### The re-emerging themes on the Experience of Covid-19 pandemic and Depression

The study was able to identify re-appearing themes of finance, education, family relationship and access to healthcare to be the basic factors that marred their satisfaction and caused a great deal of worry. The respondents were of the thought that lack of financial resources drove them to borrow and fall into debt. A lot of homes were reported to suffer from poverty and are in panic such that they engage into panic buying. In fact a senior lecturer who works in the university says that:

*Financially it was extremely bad o, we had to borrow from within and outside the country to feed, it was extremely hard.*

Karanikolos et al. (2013) agreed that financial hardship can have adverse effect on individuals leading to subsequent mental health outcomes such as depression and suicide.

The participants of the interview were of the opinion that it largely affected their academic pursuits, on the part of the student especially the postgraduate students in the university; one of the participants stated the following:

*By now I should have finished my project with my internal defense and gone for external examination, but because of the COVID-19 Pandemic, even to meet my supervisor is not possible because of the COVID-19 experience and it keeps me really worried. How am I supposed to be okay?*

Covid-19 has had an enormous impact on education at every level all over the world. In many African countries, the experience of the pandemic has been traumatic (Global University Network for Innovation, 2020). However, not all participant agreed that it affected them negatively, but some believed that it gave them the time needed to attend to their research work.. But this opinion is commonly held by some lecturers in the academics

*"I do not think that the COVID experience did affect my learning and other academic activities but it provided me sufficient time to engage into lingering research works."*

Another participant who is a lecturer reiterates that:

*"the COVID experience is not such that subjects me to academic worries, because I have been engaged on training through online tutoring with regards to special examinations, we were also involved in training of data analysis such as SPSS, R package, Anakonda and other learning environments."*

In addition, the participants of the interview agreed that they were denied access or not satisfied with the medical healthcare services available in the locality. For instance an interviewee says:

*"Not quite, we were not having easy access to ample healthcare services, like in the medical centre they stopped palpation, they said that we should go and it affected those of us who wanted to deliver (pregnancy), they refused giving us drugs, and they told us to go to the market and buy. That is very wrong,...they have drugs, ...but claim not to be in possession of any. it gets us seriously worried."*

This is in line with WHO (2020) assertion that people have not been receiving the health services and medicines they need since the COVID-19 pandemic began. It is vital that countries find innovative ways to ensure that essential services for Non Communicable Diseases continue, even as the fight of COVID-19. Outpatient and inpatient volume in healthcare facilities at all levels significantly declined in conjunction with the SARS-COV-2 outbreak (Xiao, 2020)

Attempts were made to ascertain if the issues of COVID-19 affects the relationship between families, and such that it could be a possible cause of depression, nevertheless, we had varying response of which some say it affected their relationship with their families and got them depressed.

*"I do pray to cover aspects of worry and depression. This is because over time someone just gets afraid about a relations getting infected with COVID-19."*

However, some respondents were of the opinion that the issue of the COVID-19 outbreak did not affect their family relationships in fact a respondent said:

*"COVID-19 experience did not affect anything, it didn't affect my relationship with my family except for those who are far away, I could not travel to meet them because of the lockdown, but we weren't worried about that, we could always talk on phone and make use of social media to communicate."*

Meanwhile, another respondent said:

*"COVID-19 experience was not funny and easy at all as my husband couldn't make it home before the lockdown. I really suffered, taking care of the family alone including in my mother and sister in-laws with limited resources."*

The Chicago School (2020) affirmed that relationships with extended family have become more challenging to manage at this period.

## Conclusion

Depression during covid-19 pandemic among adult members in the university community of University of Nigeria Nsukka was investigated using a mixed methods approach whereby quantitative and qualitative data were employed in the analysis. The findings of the study showed that the experience of the COVID-19 pandemic has relationship with unpleasant feelings of depression in the university Community of the University of Nigeria, Nsukka. Depression was as a result of inability to actualize educational expectations, problems of poor finance amongst families for basic needs, family relationships and poor healthcare services. This study suggested the need for urgent intervention through financial assistance to the populace and improvement in public healthcare delivery in this trying time by the federal, state and local government.

## Recommendation

- The study suggests that the government authorities should consider developing platforms of bringing individuals out of the problems of depression
- The government should find the lasting solution to the problems of the Covid-19 Pandemic so that individuals could be free from their fears
- The government should engage into sensitization programs to ensure individuals stay calm and avoid engaging into panic buying.
- The government should intervene and provide palliatives as well as financial aid to the members of the public that is in need. The government alongside NGO should sensitive individuals on the appropriate attitude to approach the Covid-19 outbreak

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