
Undergraduate Science Student's Perception of the Impact of Covid-19 Lockdown on Education. A Survey of Sokoto State Tertiary Institutions

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Abstract

Sequel to the declaration of COVID-19 as a global pandemic dated March 11, 2020, by the World Health Organization, the global economy has snappishly declined, and billions of people are in lockdown, retaining self-isolation. In this survey, 150 respondents were randomly selected. This paper highlights the impact of lockdown on Science Students on their education. The study revealed that the majority of the respondents, around 51.33%, found lockdown beneficial because it has helped to neutralize the outbreak of the disease, while 48.67% of the respondents do not find it beneficial as their educational agenda has been stopped. It is recommended that the policymakers should pledge policies in education through a long-term perspective in such a way that no pandemic could hinder educational activities globally.

Keywords: *Pandemic, Lockdown, Covid-19, Education*

INTRODUCTION

Globally, as of 5:46 pm CEST, June 4, 2021, there have been 171,782,908 confirmed cases of COVID-19, including 3,698,621 deaths and a total of 1,638,006,899 vaccine doses have been administered (WHO, 2021). In Nigeria, however, there have been 166,682 confirmed cases with 2,117 deaths, and a total of 1,637,078 vaccine doses have been administered as of May 31, 2021 This outbreak has turned out to be the worst global public health emergency. However, in the bid to check the fast spread of the disease, countries all over the world progressively went into lockdown, and citizens of some countries are quarantined. According to Lamb et al., (2020), COVID-19 or 2019-nCoV is a transmissible disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Perlman and Netland (2009) reported that COVID-19 is an RNA virus, and when subjected to an electron microscope, it has a typical crown-like structure which is induced by the presence of glycoprotein spikes on its envelope. Moreover, Perlman and Netland (2009); Yin and Wunderink (2018) highlighted that there are four genera of CoVs, namely: AlphaCoV, BetaCoV mostly found in rodents and bats, while DeltaCoV, and GammaCoV mostly characterize avian species.

The virus is known to be of zoonotic and natural origin i.e. it could be from natural selection in an animal host before zoonotic transfer or in humans sequel to zoonotic transfers (Yin and Wunderink, 2018; Lu et al., 2020). The severity of the disease ranges from asymptomatic to fatal because there is a high variation in the clinical features as well as the risk factors (Phan, 2020).

The virus has been affecting various aspects of our lives, not just the health aspect but the economies, social order, as well as politics. However, the most effective way of managing the virus by the global community is simply the prevention of its spread. According to WHO (2020), the spread of COVID-19 can be achieved by the development of coordinating mechanisms not only in the health sector but in other areas such as commerce, transportation, travel, finance, education, and security as well as other subdivisions that comprehends the wholeness of the society (WHO, 2020).

In an attempt to subdue the virus, the countries in the world went into a total shutdown. This includes the closure of borders, offices, schools, suspension of transportations, imports and exports as well as other businesses. In other words, the pandemic has affected all social and economic sectors of almost all the countries.

For the educational sector, about 94% of all learners have faced closure, as such, universal distance education was adopted by most schools and tertiary institutions (ILO, 2020). However, the adoption of distance learning appeared to be a challenge in many developing countries including Nigeria. This could be attributed to a lack of skills and the required equipment to facilitate distance learning for both the teachers and learners. Therefore, this paper will focus on the impact of COVID-19 on undergraduate science students in Sokoto State tertiary institutions.

METHODOLOGY

Study Area

This study was conducted in the Sokoto metropolis. Geographically, the state lies along longitude 110 301 to 130 50I East and latitudes 4o to 61 North and covers a total landmass of 26,648.48 square kilometers. Sokoto State shares a boundary with Zamfara State to the east, Kebbi State to the south, and the Republic of Niger to the north. According to the National Population Commission (2007), the State has an estimated population of about 4,742,459 people as of 2015 with 95.9 persons per square kilometer, and a 3% growth rate annually based on the 2006 population census. Occupation of the city populaces includes trading, farming, commerce, with a reasonable proportion of the population working in private and public sectors (Oyeleke and Manga, 2008).

A random sampling technique was used to select the tertiary institutions for the study. However, a purposive sampling technique was used to select the departments from which the respondents of the study will be obtained. These departments are mainly science departments and they include agriculture, biology, microbiology, chemistry, physics, integrated science, etc. from all 4 tertiary institutions in the study area. Moreover, a random sampling method was also applied to select 50 respondents from each of the tertiary institutions in the state. The respondents were selected from different departments and the questionnaires were distributed manually. The selected 150 respondents all filled up their questionnaires within a stipulated time.

The research design was prepared in such a way that the respondents' opinions concerning the lockdown on their education and their views towards its advantages and disadvantages are captured. The data was entered and analyzed using descriptive statistics in MS excel 2016.

RESULT AND DISCUSSION

Table 1.0 presents the demographic profile of the respondents and their respective responses/opinions on the impact of lockdown on education. In this study, one hundred and fifty (150) questionnaires were distributed and filled by students of the sampled tertiary institutions. Quite a majority of the students are in their early 20s and late teens which represent 49% and 28% while a few are above 30s which represents roundly 5%. Also, quite a few of the respondents are in their late 20s which represents 27%. The majority of the respondents are males which represent 75% of the study population and the remaining 25% represent females. The study revealed that a third of the students are in their 2nd and 1st level of studies which represent 41% and 37%, few are in their 3rd year with 19% and the least are in their final year of studies with 4%.

The responses of the respondents in the 2nd half of table 1.0 were analyzed using descriptive statistics in MS excel and the results are shown in Table 2.0. The results showed a mean range of 1.83 – 1.92 for the benefit or non-benefit of the lockdown on education. The results are positive at a medium level.

Table 1.0 Demographic profile of respondents

Variable	Parameter	Frequency	Percentage
Institution	Shehu Shagari College of Education	50	
	Usmanu Danfodiyo University	50	
	Umaru Ali Shinkafi Polytechnic	50	
		150	
Age	15-20	42	28.00
	21-25	74	49.33
	26-30	27	18.00
	Above 30	7	4.67
		150	100
Gender	Male	112	74.67
	Female	38	25.33
		150	100

Table 2.0 Mean and Standard Deviation

Variables	Factors	F	%	Mean	Std. Dev.
Levels	1 st year	55	36.67	1.83	.379
	2 nd year	61	40.67	1.97	.180
	3 rd year	28	18.67	1.56	.511
	4 th year	6	4	1.50	.577
	Total	150	100	1.71	.250
Impact of lockdown on education	Beneficial	77	51.33	1.83	.377
	Not beneficial	73	48.67	1.92	.273
	Total	150	100	1.87	.250
Reasons for the benefits of lockdown	It helped to control the widespread of the virus across the country	36	46.75	1.71	.463
	Helped parents with daily chores and errands	11	14.28	1.83	.408
	Learn extra skills	17	22.07	1.86	.363
	Spent quality time with family members	13	16.88	1.63	.518
	Total	77	100	1.75	.518
Reasons for lockdown not beneficial	The timeline of study is interrupted	19	26.03	1.36	.497
	Delay in writing exams	21	28.77	1.91	.302
	Lack of convenient study environment/study materials	20	27.40	1.82	.405
	Being passive	13	17.08	1.63	.518
	Total	73	100	1.68	.511
Student involvement during lockdown	It helped in the preparation of the exams	23	15.33	1.77	.439
	Generate extra income	27	18.00	1.69	.479
	Maintain farmlands	29	19.33	1.71	.470
	All of the above	40	26.67	1.60	.500
	None of the above	31	20.67	1.94	.250
Total	150	100	1.40	.577	

According to some of the respondents, lockdown is beneficial because it aided in controlling the prevalent of the virus across the country. Similarly, the respondents were able to help their parents with their daily chores and running errands. Learning extra skills as well as spending some good times with members of the family are also some of the motives why the lockdown is considered beneficial. Although the respondents reported some beneficial impacts on lockdown,

there is a need to conduct further research on the subject matter. On the other hand, some respondents opined that the lockdown is not beneficial. The reasons behind their claims are the fact that the timeline of their studies is interrupted, delay in writing exams, inconvenient study environment, and materials, as well as being passive. Di Pietro *et al.*, (2020) and Meda *et al.*, (2020) reported similar findings. Engzell *et al.*, (2020) concluded on learning loss in schools due to lockdown. Despite the aforementioned, the respondents are engaged in various activities during the lockdown. These activities include their preparation for exams, generate extra income and the maintenance of farmlands. Comparable findings were also conveyed by Thapa *et al.*, (2020).

CONCLUSION

The educational systems globally have been affected by the Covid-19 outbreak, which led to the almost complete closure of the academic institutions. This study was able to draw the views of some students concerning the lockdown, their undertakings during the lockdown, and the impacts of the lockdown on their education as a whole. The findings of this study revealed that the majority of the respondents found the lockdown to be beneficial. The Covid-19 pandemic and the consequent lockdown have brought huge uncertainty for the smooth learning process of many students. Therefore, the Government should come up with policies in education through a long-term perspective that will prevent any sort of interference in the academic activities of all respective institutions.

REFERENCES

- Di Pietro, G., Biagi, F., Costa, P., Karpiński, Z., & Mazza, J. (2020). *The likely impact of COVID-19 on education: Reflections based on the existing literature and recent international datasets* (Vol. 30275). Publications Office of the European Union.
- Engzell, P., Frey, A., & Verhagen, M. D. (2021). Learning loss due to school closures during the COVID-19 pandemic. *Proceedings of the National Academy of Sciences*, 118(17).
- International Labour Organization. (2020). *ILO Sectoral Brief*. [Ebook]. Geneva. Retrieved from https://www.ilo.org/sector/Resources/publications/WCMS_742025/lang--en/index.htm. [Accessed 27 June 2021].
- Lamb, L. E., Bartolone, S. N., Ward, E., & Chancellor, M. B. (2020). Rapid detection of novel coronavirus (COVID19) by reverse transcription-loop-mediated isothermal amplification. *Available at SSRN 3539654*.
- Lu, R., Zhao, X., Li, J., Niu, P., Yang, B., Wu, H., & Tan, W. (2020). Genomic characterization and epidemiology of 2019 novel coronavirus: implications for virus origins and receptor binding. *The lancet*, 395(10224), 565-574.
- Meda, N., Pardini, S., Slongo, I., Bodini, L., Rigobello, P., Visioli, F., & Novara, C. (2020). COVID-19 and depressive symptoms in students before and during lockdown. *MedRxiv*.
- MOCIT, (2002). Guide to Sokoto states Economic Potentials. Commerce Dept, Ministry of

Commerce, Industry and Tourism, Sokoto State. Pp 4 – 18.

National Population Commission (2007). Population Census Data, Nigeria, Federal Republic of Nigeria Official Gazette, National and State Provisional Total Census. Federal Government Printer, Lagos. No 21 vol.94.

Oyeleke, S. B., & Manga B. S., (2008). Essential of laboratory practical in microbiology 1st Ed. Tobest publishers S.W. 225 Hospital Road Minna, Nigeria. Pp. 28 - 58.

Perlman, S., & Netland, J. (2009). Coronaviruses post-SARS: update on replication and pathogenesis. *Nature reviews microbiology*, 7(6), 439-450.

Phan, T. (2020). Novel coronavirus: From discovery to clinical diagnostics. *Infection, Genetics and Evolution*, 79, 104211.

Thapa, S., Sotang, N., Adhikari, J., Ghimire, A., Limbu, A. K., Joshi, A., & Adhikari, S. (2020). Impact of COVID-19 Lockdown on Agriculture Education in Nepal: An Online Survey. *Pedagogical Research*, 5(4).

Yin, Y., & Wunderink, R. G. (2018). MERS, SARS and other coronaviruses as causes of pneumonia. *Respirology*, 23(2), 130-137.

World Health Organization. (2021). *Coronavirus Disease (COVID-19) Dashboard With Vaccination Data*. Covid19.who.int. Available at: <https://covid19.who.int/region/afro/country/ng>. [Accessed 27 June 2021].

World Health Organization. (2020). *Responding to community spread of COVID-19*. [online] Available at: <<https://www.who.int/publications-detail/responding-to-community-spread-of-covid-19>> [Accessed 27 June 2021].