GSJ: Volume 9, Issue 10, October 2021, Online: ISSN 2320-9186

www.globalscientificjournal.com

Assessment of Knowledge on Covid-19 Among Pupils of Isoka District.

Stephen Mubanga, Enock Mutepuka

Stephen Mubanga is currently a part time lecturer of mathematics at Evelyn Hone College, Isoka campus and a teacher of mathematics at Muchinga secondary school in Zambia. Email. mubangastephen20@gmail.com

Enock Mutepuka is an Environmental Scientist and Research Consultant currently working as a teacher of Biology and Chemistry at Isoka Boys Provincial Stem school in Isoka, Zambia. Email. chinyantain@gmail.com

KEY WORDS.

Assessment, Knowledge, Covid-19, Pupils, Signs and symptoms.

ABSTRACT

Introduction: Coronavirus disease 2019 also known as Covid-19 is a respiratory disease caused by Covid-19 virus. The disease is similar to a common cold and in severe cases results into pneumonia, kidney failure and may also results into death. Pupils' poor understanding of Covid-19 can contribute to an increase in the number of cases.

Aim: The aim of this study was to assess knowledge on Covid-19 among pupils of Isoka district in Zambia.

Methodology: Data was collected using open ended questionnaires. The data was then organized and notes gathered, reviewed and explored in order to find common patterns across the data set. Then themes were then presented in a cohesive manner.

Results: The results of this study show that the participants in the study area have knowledge about Covid-19**.**

Recommendations: Teachers and parents should help in effecting the measures to prevent Covid-19 and future research should examine measures put across to help learners catch up with what they lost when schools closed due to the Covid-19 pandemic.

I. INTRODUCTION

Covid-19 is an infectious disease caused by the SARS-COV-2 virus. In the word Covid-19, CO- stands for Corona, "VI 'stands for Virus, D-stands for Disease and 19 is the year 2019 when the disease was discovered.

At present there is little literature on the topic assessment of knowledge on Covid -19 among pupils in the education sector. The only literature available is directly related to medical studies [1,2,3,5] This does not mean that the education sector is not affected by the effect of the Covid-19 epidemic but rather because studies in education rarely take into consideration the effects of the disease on the effective provision of education to learners worldwide, and because the medicals studies are concerned directly in the sorting out of the problem by looking for the cure and other preventive measures so that the disease can be brought to a halt. The rate at which Covid-19 has rapidly been spreading has made every sector of human life to immediately feel its impact. Medical personnel are busy in the laboratories trying to find a medical solution to this epidemic. Economists are working on ways of managing the economic effect of this epidemic on country economies because businesses are closing down every day and there are restrictions on human mobility within and across boarders [3]. A disease which appeared in the Chinese region of Wuhan surprisingly spread so fast across China and other parts of the world [4].

However most of the studies related to education have been conducted especially in higher learning institutions like the colleges and universities. It is therefore important that studies are conducted in secondary schools to assess the knowledge of pupils as this group has not been left out in as far as effects and impacts are concerned, and moreover they are super spreader groups hence the development of this study.

In Saudi Arabia, Mohamed and others [6] in their study to assess knowledge among undergraduate students indicates that most of the students were well acquainted with Covid-19. They obtained the mean knowledge score for Covid-19 to be 3.08 ± .82 (range: 1–5), indicating good knowledge. The attitude means the score was 3.02 ± .61 (range: 0–4), implying good positive attitudes. On assessing the mean score of practices, it was found 5 ± .47 (range: 0–7), pointing towards perfect practices. There were no significant differences between males and females regarding knowledge, attitudes, and practice toward Covid-19 (p-value < 0.05).

A study conducted in Ethiopia by [7] reports that from a total of 546 included participants, more than half of them, 307 (57%) were males. Seventy-three percent of them heard about novel coronavirus from social media. In this study, 73.8% of the participants were knowledgeable, and their overall attitude was favorable. Approximately 71.4% correctly responded that the main clinical symptoms of Covid- 19 are fever, fatigue, dry cough, and shortness of breath. Nearly

half, 229 (42%) of the students approved that they had no concern of being infected with Covid-19.

A study done by Sintema reports that Zambia operates a trimester education system for all secondary schools. In this system students in examination classes like Grades 9 and 12 have about 13 weeks of learning each term. However, planned and unplanned activities usually make it impossible for these students to have a smooth academic year purely dedicated to learning and preparing for examinations which come in November of each year. Planned activities that affect the school calendar include sporting activities like athletics which usually come in term one and ball games which come in term two. Unplanned events include health related occurrences like Covid-19 that force government to close schools in order to save life. In the two cases that would affect the school calendar it is the unplanned events that have a far reaching damaging effect. [8].

II. METHODOLOGY

An exploratory survey design was used to assess knowledge on Covid-19 among pupils of Isoka district. The sample size determination was done using Taro Yamani technique and was found to 50 participants. The population consisted of grade twelve (12) pupils from Isoka Boys Provincial Stem School and Muchinga Secondary School with inclusion criteria of pupils who were health and have never come down with Covid-19 disease. Data was collected by using open ended questionnaires. Data was then organized, reviewed and explored then analyzed thematically and presented cohesively.

III. RESULTS

Table 1. What is Covid -19?

Participant	Response
Participant 48	Covid-19 is airborne disease
Participant 9	It is airborne disease which causes respiratory Failure
Participant 35	It is an infectious disease caused by SARS-COV-2 Virus
Participant 2	Covid -19 is an infectious disease caused by SARS-COV-2 Virus.

Participant 40	Covid -19 is a virus which originated from china
Participant 43	It is a deadly disease caused by virus and it is no cure
Participant 3	It is a respiratory illness that causes shortness of breath
Participant 4	Covid-19 is the infection caused by the corona virus characterized by dry cough, shortness of breath and fever.

Source: Field Data, 2021

Most of the respondents have knowledge about what Covid-19 is. Although in one theme it was mentioned that it is a virus which originated from China, a response that was not correct.

Table 2. What are signs and symptoms of covid-19?

Participant	Responses
Participant 35	Fever, Cough, Shortness of Breath
Participant 40	Headache, High fever, cough, Sneezing
Participant 4	Shortness of Breath, dry cough, fever, sore throat
Participant 2	Fever, Dry cough, tiredness, headache.

Source: Field Data, 2021.

Most of the responses indicate good knowledge of signs and symptoms of Covid-19.

Table 3. List the categories of people at high risk of developing serious illness from Covid-19

Participant	Response
Participant 40	The aged, People with diseases such as HIV/AIDS, Diabetes and heart diseases

Participant 4	The aged, People with weak immune system, Pregnant women.
Participant 43	People with HIV, TB, Sugar and BP.
Participant 49	Senior citizens who are about 65 years, Youths who are 28 -35 years, Other people who are 36-64 years.
Participant 2	Children with obesity, Old people with underlying medical problems
Participant 5	Children with Obesity, Diabetes, Sickle cell disease people
Participant 48	Aged people, 60years and above, People with HIV/AIDS, Children under the age of 16.

Source: Field Data, 2021

Most of the participants gave correct responses although some participants used abbreviations such as HIV, TB and BP which can mean anything and not medical conditions.

Table 4. List five golden rules of Covid-19 prevention.

Participant	Responses
Participant 3	Always wear a mask, wash hands/sanitize, Physical distancing, avoid unnecessary movements, avoid handshakes.
Participant 4	Keep social and physical distance of about 2m,sanitize hands with an alcohol based hand sanitize, always wear a face mask in public, Avoid handshakes, avoid touching your face.
Participant 5.	Often wash your hands for at least 20seconds with soap, Do not torch your face with unwashed hands, Cough or sneeze into a tissue o elbow, keep 1.5 meters apart from one another, stay home.

Source: Field Data, 2021

Most of the participants gave out the golden rules correctly.

IV. DISCUSSION

The Objective of this study was to assess knowledge on covid-19 among pupils of Isoka district in Zambia. The study reveals that participants have knowledge about what covid-19 is as evidenced by the responses they gave. Most of the participants in this study mentioned that covid-19 is a disease caused by a virus and in most responses the virus SARS-COV-2 was mentioned .This is consistent with the study conducted in Saudi Arabia by [1] where it is reported that most of the students were well acquainted with covid-19.To the secondary school pupils this knowledge could be attributed to mass sensitization by both the ministry of health and ministry of education on platforms such as television, Radio, Newspapers, social media such as WhatsApp, Facebook and interaction with friends during the time they closed schools due to the pandemic.

Moreover, this study is also in tandem with the study conducted in Ethiopia where it is reported that 73.8% of the participants were knowledgeable about covid-19. In addition, this study reveals that participants have knowledge about the signs and symptoms of covid-19. This knowledge could help them recognize the disease early and report to the relevant authority for quick action that might prevent death and prevent further spread of the disease. This could also help with intensifying with preventive measures.

Furthermore, this study reveals that participants have knowledge about the five golden rules of covid-19 prevention. The five golden rules were one of the measures that was put across to help prevent the spread of the disease and these measures helped to reopen schools after a long closure. Teachers and parents should now help with making sure that there is implementation of the golden rules so that the spread of the diseases is halted and is brought to zero infection rate.

V. CONCLUSION

Participants in the study area have knowledge about what covid-19 is, signs and symptoms and the golden rules of helping to prevent the spread of the disease. This study contributes to literature on the knowledge of pupils on covid-19 in secondary schools of Zambia and the rest of the world. The study has highlighted on the need for teachers and parents to help pupils intensify the implementation of the five golden rules so that further spread of the disease and successive development of waves are brought to a halt.

VI. RECOMMENDATIONS

Following the revelation of this study future research should look at:

- Investigation of the effects of Covid-19 among pupils across all grades
- Examination of the measures put across to help them catch up what they lost during the closures of schools as a result of covid-19.
- Explore pupil's views on covid-19 in relation to their academic progress.

VII. ACKNOWLEDGEMENT

We wish to express our appreciation to all the study participants and schools for participating in this study. We also wish to thank Ms. Chama Chomba wife to Mr. Mubanga and Talent Kayangula Wife to Mr. Mutepuka Enock for their support during the process of research and writing of this journal article. The writing of the manuscript would not have been possible had it

not been for the Head of Department of Natural Sciences at Isoka Boys Mr. Mulenga Mwila Sydney who gave us an opportunity to sit and write from his office. Lastly but not the least, we wish to thank the head teacher Isoka Boys and Head teacher Muchinga Secondary School for allowing us to collect data from the participants.

VIII. FUNDING INFORMATION

Self-Funded

IX. COMPETING INTEREST

The authors declare that they have no competing interest.

REFERENCES

[1] Chinazzi, M., Davis, J. T., Ajelli, M., Gioannini, C., Litvinova, M., Merler, S., ... Viboud, C. (2020). The effect of travel restrictions on the spread of the 2019 novel coronavirus (COVID-19) outbreak. *Science*. https://doi.org/10.1126/science.aba9757

[2] Hopman, J., Allegranzi, B., & Mehtar, S. (2020). Managing COVID-19 in Low and Middle Income Countries. *JAMA*. https://doi.org/10.1001/ jama.2020.4169

[3] Kraemer, M. U., Yang, C. H., Gutierrez, B., Wu, C. H., Klein, B., Pigott, D. M., ... Brownstein, J. S. (2020). The effect of human mobility and control measures on the COVID-19 epidemic in China. *Science*. https://doi.org/10.1126/science.abb4218

[4] Wickramasinghe, N. C., Steele, E. J., Gorczynski, R. M., Temple, R., Tokoro, G., Wallis, D. H., & Klyce, B. (2020). Growing Evidence against Global InfectionDriven by Person-to-Person Transfer of COVID-19.
VirolCurr Res, *4*(1)

[5] Wu, Z., & McGoogan, J. M. (2020). Characteristics of and important lessons from the coronavirus disease 2019 (COVID-19) outbreak in China: summary of a report of 72 314 cases from the Chinese Center for Disease Control and Prevention. *JAMA*.
https://doi.org/10.1001/jama.2020.2648

[6] Mohamed Adam, Moawia Gameraddin, Magbool Alelyani, Gaffar Sarwar Zaman, Alamin Musa, Irshad Ahmad, Mohammad Y Alshahrani, Kamal Alsultan, Awadia Gareeballah, 202.Assessment of Knowledge, Attitude, and Practice Concerning COVID-19 Among Undergraduate Students of Faculty of Applied Medical Sciences at King Khalid University, Abha, Kingdom of Saudi Arabia: A Cross-Sectional Surveyed Study. Advances in Medical Education and Practice 2021:12 789–797

[7] Aynalem YA, Akalu TY, Gebresellassie Gebregiorgis B, Sharew NT, Assefa HK, Shiferaw WS (2021) Assessment of undergraduate student knowledge, attitude, and practices towards COVID- 19 in Debre Berhan University, Ethiopia. PLoS ONE 16(5): e0250444. https://doi.org/10.1371/journal. pone.0250444

[8] Sintema, E,J .Effect of COVID-19 on the Performance of Grade 12 Students: Implications for STEM Education**.** EURASIA Journal of Mathematics, Science and Technology Education, 2020, 16(7), em1851 ISSN:1305-8223 (online).https://doi.org/10.29333/ejmste/7893