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Perception on the Relationship between Adherence to Safety Measures and Combating COVID-19 among Undergraduates in Public Universities in Cross River State

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Abstract
This study examined the relationship between adherence to safety measures and combating COVID-19 in public universities in Cross River State. Two hypotheses were formulated to guide the study. Correlational survey research design was adopted for the study. The population of the study consisted of 3,456 final year undergraduates in the University of Calabar and Cross River University of Technology. A sample of 800 students was selected from Faculties of Education and Social Science in both universities using stratified, purposive and proportionate random sampling procedures. A questionnaire was used for data collection. The instrument was face-validated by two experts in Measurement and Evaluation from the University of Calabar. The reliability estimates of the questionnaire were established through the Cronbach alpha which range from .75 to .80. Pearson Product Moment Correlation was the statistical technique used for data analysis. The results revealed that physical distancing and wearing of mask significantly relate with combating COVID-19 in public universities in Cross River State. Based on these findings, it was recommended that regular orientation should be given to students on how to and when to use COVID-19 safety measures in order to reduce the spread of COVID-19 and promote interpersonal relationship.
Keywords: COVID-19, safety, measures, university, combating

Introduction

Coronavirus Disease (COVID-19) pandemic has triggered a significant change, imposing many challenges in interpersonal relationship at all educational levels globally. This crisis can be looked upon as an opportunity to reconstruct the long standing educational systems and establish better and updated practices in academia, suitable for the present generation of learners. The disruption caused by COVID-19 in the educational sector may last longer

than expected if a more reliable solution for coronavirus is not found on time, and the spread of the disease continues. There is no doubt that unplanned school closures can cause severe problems for students, educators, parents and the society at large. It could negatively affect the undergraduates' academic interest, interpersonal relationship and academic performance. If the students are not engaged productively, it could lead to idleness which might result in youth involvement in crimes, deviant behaviour, loss of interest in learning and poor academic performance in schools (Ntibi & Ibok, 2021).

In Nigeria, in a virtual consultative meeting between the Federal Ministry of Education, Commissioners for Education of the 36 states, the Nigeria Union of Teachers (NUT), the proprietors of private schools, and Chief Executives of examination bodies, it was resolved that a passionate appeal be made to the Federal Government through the Presidential Task Force on COVID-19 and public spirited Nigerians for assistance to schools across the country to enable them fast-track the preparations for safe reopening, as agreed. The guidelines were drafted in close coordination with health, environmental, education, and school safety experts who were tasked with the responsibility of charting a pathway for safe reopening of schools and learning facilities for quality teaching and learning (Federal Ministry of Education, 2020). The guidelines served as safety measures for reopening of schools. The safety measures for reopening of schools include:

i. Personal protective measures - wearing of masks, washing or sanitizing of hands frequently, practising respiratory etiquette.
ii. Social measures - staying and working from home, staying at least one metre away from any other person who is not from one's household, and avoiding crowded settings like public transport, bars, and schools.
iii. Travelling measures - limiting travel between cities, regions, and nations.

The guidelines for safety measures for schools and learning facilities reopening afterCOVID-19 pandemic closures outlined key strategies for implementing safe, efficient and equitable plans for school reopening and operation. The document focuses on attendance, social distancing, hygiene, cleaning, and other non-pharmaceutical interventions for safe and healthy school activities and programmes. It is observed that many students not only have resisted unethical practice during this crisis, but also have proactively engaged in various COVID-19 guideline activities, particularly those that can offer immediate help and assistance to the fight against the virus.

The COVID-19 pandemic has severely affected the way people communicate and relate with one another. Precautionary measures to limit the spread of the virus necessitated a shift in the communication paradigm when it comes to greetings and handshakes. The arising situation required students to adopt salutations that do not entail physical contact, such as the "peace sign," the "hand on chest" and the "namaste" (Bergdahl & Nouri, 2020). Face-to-face communication, interpersonal relationship specifically, were majorly affected by the pandemic. Interpersonal communication and interpersonal relationship have been severely affected during the COVID-19 pandemic. Protective measures, such

as social distancing and wearing of face masks, are essential to mitigate the spread of the virus; but these pose challenges on daily face-to-face communication (CDC, 2020).

Social distancing is one of the measures of hygiene which have proven to be effective reactions to the threat of increasing number of COVID-19 cases and fatalities. According to Uscher-Pines et al. (2018), the aim of "social distancing" is important to protect the health of the society. The social distancing strategy includes quarantines; travel restrictions; and the closing of schools, workplaces, stadiums, theatres, and shopping centres. Individuals may apply social distancing methods by staying at home, limiting travel, avoiding crowded areas, using no-contact greetings, and physically distancing themselves from others.

Ntibi and Ibok (2021) carried out a study to established the relationship between COVID-19's social responsibility and senior secondary school 3 (SSS-3) students' attitude towards mathematics and physics in Calabar Metropolis of Cross River State, Nigeria and found that social distancing significantly relates with students' attitude towards learning and interpersonal relationship in schools.

In response to school closures, UNESCO (2020) recommended the use of distance learning programmes, social distancing and open educational applications and platforms that schools and teachers can use to reach learners remotely and limit the disruption of education. According to Michael (2020), closing schools are not the only option to mitigate coronavirus. He advocated for authorities to give parents some flexibility to choose what is best for their families, while implementing stronger mitigation measures. Frenzel et al. (2007) in their finding acknowledged that social distancing has great influence on students' learning and interpersonal relationship. Face masks, particularly, muffle sounds and cover facial expressions that ease comprehension during live communication. The need for face masks, as an important protective measure to decrease the spread of the virus, had a huge toll on interpersonal communication (Johns, 2020). Despite its crucial protective role, the face mask poses challenges on daily face-to-face communications. Interpersonal communication describes the interaction between two individuals or more through oral or physical (gestures) interactions. Proper application of the protective mask involves covering the mouth and the nose, which muffles sound and makes it challenging to understand speech and some higher-pitched voices.

Furthermore, face masks eliminate the roles of the middle and lower face in emotional expression, rendering its action units invisible to the receiving individual. Facial expressions and gestures play a major role in facilitating interpersonal communication, comprehension and the delivery of intended messages. Hamre and Pianta (2006) explored the modes of processing of emotional expression in children and opined that the mouth can be used to recognize a neutral expression and is best for recognizing the emotion of happiness. Vieira et al. (2018), in their studies on distance and academic performance in higher education, found that wearing of mask has significant influence on students' learning and combating COVID-19 in schools.

A study conducted by Agegnehu et al. (2021) in Southern Ethiopia showed that 88.2%, 99.5%, 94.9% and 97.4% of the participants adhered to physical distancing rule, wearing of face mask, covering mouth and nose during coughing/sneezing and washing of hand regularly with water and soap respectively in order to fight against COVID-19 pandemic. Similarly, Moradzadeh et al. (2020) conducted a study on knowledge, attitude and practices toward Coronavirus disease among students in Iran and found that 95.4%, 93% and 80.5% of the participants adhered to hand washing with soap and water, avoiding crowded place and wearing of mask respectively, which showed good adherence to COVID-19 preventive measures. Lee et al. (2021) examined knowledge, attitude and practice of students toward COVID-19 in South Korea and found that only 12.3% of students in school adhered to the suggested COVID-19 preventive measures which resulted to the spread of COVID-19 in school. Soltan et al. (2020) in their study on knowledge, risk perception, and preventive behaviour related to COVID-19 pandemic among undergraduate in Egypt found preventive measures as the means of reducing the spread of COVID-19 among the students. In Egypt and Nigeria, it was observed by the researchers that only 36% of the students implemented all the recommended measures of which most of them practiced self-isolation and physical distancing. According to a study conducted in Jeddah city by Almutiri et al. (2020), nearly half of the study participants in schools (48.96%) had poor adherence to COVID-19 preventive measures in schools which affected teaching and learning in schools. Gagnon et al. (2014) investigated children's ability to recognize fear, surprise, disgust, and anger based on information from the upper, middle, or lower face and found that children can recognize fear, surprise, and anger using expressions involving the lower face, and disgust using expressions involving the middle face. Mheidly and Fares (2020) in their finding found that wearing face masks hindered the ability of seeing and understanding people's expressions during conversations, and decreased the impact of communicated material. Students do not learn and develop in isolation but embedded in a web of relationships which make up a social field. The quality of these relationships determines children's learning, development, interaction and well-being (Rucinski et al., 2018).

Statement of the problem

The coronavirus disease 2019 (COVID-19) pandemic has been a major public health issue since its initial report in Wuhan, China. Its associated negative effects on the economy and human socialization have impacted on quality of life and psycho-social health of individuals. The disruption caused by COVID-19 in the Nigerian educational sector has caused unplanned school closures, diminished academic interest of the undergraduates, poor interpersonal relationship, increase in mortality, spread of diseases and poor performance of students. These could result to students' involvement in cult activities, destruction of properties, stealing, cyber-crime, among others. Adherence to preventive measures such as regular hand washing, use of facemasks, social distancing, and cough etiquette are vigorously recommended to limit community transmission of the virus and to promote education sector in Nigeria. Reluctance to accept safety measures and adhere to preventive measures have become a major public health priority in educational sectors.

Myths and beliefs have adversely shaped the perception of most Nigerian students, challenging the recommended safety measure of COVID-19 pandemic.

Research hypotheses

Ho1: Physical distancing does not significantly relate with combating COVID-19 among undergraduates in public universities in Cross River state.

Ho2: Wearing of mask does not significantly relate with combating COVID-19 among undergraduates in public universities in Cross River state.

Methodology

The study area was Cross River state where University of Calabar and Cross River University of Technology are the two public universities. The research design used for this study was the correlational survey design.

A multi-stage sampling technique (proportional, stratified, simple random sampling and purposive sampling techniques) was used to identify final year undergraduate from the Faculty of Education and Faculty of Social Sciences in both Universities for 2019/2020 academic session. The population of the study consisted of 3,456 final year undergraduates in both University of Calabar and Cross River University of Technology. A sample of 800 final year undergraduates was selected. 340 undergraduates were selected from Faculty of Education while 460 were selected from Faculty of Social Sciences. Proportional random sampling was used to select 450 undergraduates from University of Calabar while 350 undergraduates were selected from Cross River University of Technology. The stratification was done based on the two public universities, University of Calabar and Cross River University of Technology. Purposive sampling technique was used to ensure that only final year students in each selected university and faculties were used for the study.

A questionnaire title “COVID-19s Safety Measure and Undergraduate Combating of COVID-19 in University” was used for data collection. The questionnaire was given to an expert in Test and Measurement for face and content validity. The reliability estimate of the questionnaire was established through Cronbach alpha which ranges from .75 to .80. The questionnaire was divided into three parts: Section A, B and C. Section A elicited information on the demographic data of the respondents such as university, faculty, year of study. Section B consisted of 8 items on physical distancing, while Section C consisted of 8 items on wearing of mask. Items in both sections B and C were developed using a-4 point likert scale of strongly agree, agree, disagree and strongly agree. Pearson Product Moment Correlation Coefficient was used for data analysis.

Presentation of results

Ho1: Physical distancing does not significantly relate with combating COVID-19 among undergraduates in public universities in Cross River state.

To test this hypothesis, Pearson Product Moment Correlation Coefficient was used. The result of the analysis is presented in Table 1.

Table 1: Pearson Product Moment Correlation Coefficient analysis of the relationship between Physical distancing and combating COVID-19 among undergraduates (N= 800)

Variables	$\bar{x}$	SD	Df	R-value	p-value
Physical distancing	13.12	3.34	798	0.465	.000
Combating COVID- 19	15,15	4.22			

* Significant at 0.05 level, R – table =0.062

The result of the analysis (r=0.465; p=0.000) at 798 degree of freedom as presented in table 1 indicated that there is a significant relationship between physical distancing and undergraduates combating COVID-19 in the universities. With this, the null hypothesis was rejected and alternative hypothesis was accepted at 0.05 level of significance. The positive r implied that the more the physical distancing, the better the combating of COVID-19 tends to be. On the other hand, the lesser the physical distancing, the worse the combating of COVID-19 tends to be.

Ho2: Wearing of mask does not significantly relate with combating COVID-19 among undergraduates in public universities in Cross River state.

To test this hypothesis, undergraduates' information on wearing of mask was correlated with combating COVID-19 using Pearson Product Moment Correlation Coefficient. The result of the analysis is presented in table 2.

Table 2: Pearson Product Moment Correlation Coefficient analysis of the relationship between wearing of mask and combating COVID 19 among undergraduates (N= 800)

Variables	$\bar{x}$	SD	Df	R-value	p-value
Wearing of mask	14.34	3.65	798	0.534	.000
Combating COVID 19	15,15	4.22			

* Significant at 0.05 level, R-table =0.062

The result of the analysis (r=0.534; p=0.000) at 798 degree of freedom as presented in table 2 indicated that there is a significant relationship between wearing of mask and combating of COVID-19 in the universities. With this, the null hypothesis was rejected and alternative hypothesis was accepted at 0.05 level of significance. The positive r

implied that the more they (students) wear mask, the better the combating of COVID-19 tends to be. On the other hand, the lesser they wear their mask, the more difficult the combating of COVID-19 tends to be.

Discussion of the findings

The result of the first hypothesis revealed that physical distancing does significantly relate with combating of COVID-19 among undergraduates. Social distancing is one of the measures which have proven to be effective reactions to the threat of increasing number of COVID-19 cases and fatalities. This is in line with Uscher-Pines et al. (2018) who stated that the aim of social distancing is important to protect the health of the society. The finding agreed with the finding of Ntibi and Ibok (2021) who found that social distancing significantly relates with students' attitude towards learning and interpersonal relationship in schools. The finding also agreed with Frenzel et al. (2007) who in their finding acknowledged that social distancing has great influence on students' learning and interpersonal relationship.

The result of the second hypothesis revealed that wearing of mask does significantly relate with combating of COVID-19 among undergraduates. The finding is in consonance with Johns (2020) who stated that the need for face masks is an important protective measure to decrease the spread of the virus, and promote interpersonal communication and relationship with one another. The finding is in line with Vieira et al. (2018) who in their studies on distance and academic performance in higher education found that wearing of mask significantly influences students' learning and interpersonal relationship in schools. The finding also agreed with Gagnon et al. (2014) who investigated children's ability to recognize fear, surprise, disgust, and anger based on information from the upper, middle, or lower face, and found that children can recognize fear, surprise, and anger using expressions involving the lower face, and disgust using expressions involving the middle face. According to Rucinski et al. (2018), students do not learn and develop in isolation but embedded in a web of relationships which make up a social field. The quality of these relationships determines children's learning, development, interpersonal relationship and well-being.

Conclusion

Coronavirus Disease (COVID-19) pandemic has triggered a significant change, imposing many challenges in interpersonal relationship and a stumbling block to progress in education sector globally. The disruption caused by COVID-19 in the educational sector includes unplanned school closures, distortion of school calendar, adverse effect on undergraduate academic interest, interpersonal relationship and performance in schools. Based on the findings of this study, it could be concluded that safety measure such as physical distancing and wearing of masks are very necessary and essential in order to reduce the spread of COVID-19, promote interpersonal relationship and combating COVID-19 among undergraduates.

Recommendations

On the basis of the findings of the study, the following recommendations were made:

1. Social distancing should be encouraged and enforced in schools to reduce the spread of COVID-19, promote interpersonal relationship and combat COVID-19 among undergraduates.
2. Regular orientation should be given to students on how to and when to use COVID-19 safety measures such as wearing of mask in order to reduce the spread of COVID 19, promote interpersonal relationship and combat COVID-19 among the students.

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