

## CONSCIOUSNESS AND PRECAUTIONARY HABIT RELATING TO COVID-19 INFECTIONS AMONG STUDENTS IN NWAFOR ORIZU COLLEGE OF EDUCATION, NSUGBE

NWANKWO NONYELUM STELLA\*

Department of Human Kinetics and Health Education, Nwafor Orizu College of Education, Nsugbe. Email: [nwankwostella100@gmail.com](mailto:nwankwostella100@gmail.com)

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### ABSTRACT

**Objective:** Similar to outbreaks of many other infectious diseases, success in controlling the novel coronavirus infection requires a timely and accurate monitoring of the epidemic. The main objective of the present study is to assess consciousness and precautionary habit relating to COVID-19 infections among students.

**Methods:** The descriptive survey research design method was used. The researcher formulated two research questions. A self-developed questionnaire was adopted for data collection. The sample size consists of students in Nwafor Orizu College of Education, Nsugbe, selected using purposive random sampling technique, subsequently, thirty copies of the questionnaire were administered by the researcher. Mean and standard deviation were used to analyze the data.

**Results:** The study showed among other findings that students are conscious about the possibility of the disease transmission by droplets when an infected person cough, sneezes, or speaks. These findings have the vantage of providing the researchers, government, students, policy makers, and government with adequate and correct baseline data on consciousness and precautionary habit relating to COVID-19 infections among students.

**Conclusion:** Based on the research findings, it was concluded that the world has a long history of successful efforts to prevent or cure widespread infections. The main points in preventing the spread in society are hand hygiene, social distancing, and quarantine. With increased testing capacity, detecting more positive patients in the community will also enable the reduction of secondary cases with stricter quarantine rules.

**Keywords:** Consciousness, Precautionary habit, COVID-19, Infections, Students.

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### INTRODUCTION

The coronavirus infection that is at present circling is called COVID-19. The sickness has now been marked as a pandemic because of its overall spread and effects. The CDC characterizes a pandemic as a worldwide flare-up of sickness that happens when another infection taints and passes between individuals tenaciously [1]. While health specialists work on fostering an immunization and setting up treatment support measures for infected people, it is urgent to remain appropriately informed about how to combat this present infection's spread through legitimate sensitization and prudent propensity [2].

COVID-19 disease originally showed up around Hubei Province of China, in December 2019. First cases of the infection were recognized from patients visiting the wet market containing wildlife species [3]. The infection spreads between people by coughing discharge. It can likewise be profoundly transmitted by asymptomatic people during the infection incubation period [4]. The infection can survive on surfaces as long as 5 days [5].

The adequacy of outbreak control will chiefly rely on the consciousness and precautionary habit of the general public [6,7]. Poor understanding and risk perception of the sickness among students in institutions of higher learning may bring about postponed acknowledgment and therapy, bringing about the quick spread of the infection [8]. Although, no particular antibody or treatment is approved for COVID-19, yet a few treatment regimens recommended under various conditions are available for control of the infection severity and mortality rates [9]. The fight against COVID-19 continues globally, and to guarantee success, people's adherence to preventive measures is essential. To address these needs, the present study covers consciousness and precautionary

habit relating to COVID-19 infections among students in Nwafor Orizu College of education, Nsugbe.

The main purpose of this study is to survey consciousness and precautionary habit relating to COVID-19 infections among students in Nwafor Orizu College of education, Nsugbe. Specifically, it aims to determine the state of consciousness about COVID-19 infections among students and to determine the precautionary habits relating to COVID-19 infections among students. Two research questions were formulated to guide the study; it includes what is the state of consciousness about COVID-19 infections among students? And what are the precautionary habits relating to COVID-19 infections among students? Furthermore, the study was guided by the following hypotheses: There is no significant difference on male and female student's consciousness about COVID-19 infections. There is no significant difference on male and female student's precautionary habits relating to COVID-19 infections.

### METHODS

#### Design of the study

The research design adopted for this work is survey research design which is the type in which a group of people or items is studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group [10]. The rationale for choosing this design is because it has been used successfully in similar studies.

#### Area of the study

This research was carried out at Nwafor Orizu College of Education, Nsugbe. The school is in Nsugbe town in Anambra East Local Government Area, Anambra State and is bounded on the north by Anambra Omambala River, on the south by Nkwelle-Ezunaka, town, on the west by Onitsha town and on the East by Umueri town.

### Population, sample, and sampling techniques

The target population for this study was the students of health and physical education department in Nwafor Orizu College of Education, Nsugbe, Anambra State. The sample of the study consists of 30 students selected through purposive sampling techniques; this comprised 14 males and 16 females.

### Ethical considerations

The most important principles related to ethical considerations were maintained. Research participants were not subjected to harm in any ways whatsoever. Respect for the dignity of research participants was prioritized and their full consent was obtained before the study. The protection of the privacy of research participants was ensured and adequate level of confidentiality of the research data was also ensured. Above all, the anonymity of individuals and organizations participating in the research was ensured.

### Instrument for data collection

The instrument used for data collection was a questionnaire titled: Consciousness and Precautionary Habit Scale for COVID-19 Infections (CPHSCI). The CPHSCI contained 20 items on a four point scale of strongly agreed (SA=4), agreed (A=3), disagreed (D=2), and strongly disagreed (SD=1). The overall theme of the items was based on consciousness and precautionary habit relating to COVID-19 infections among students.

### Validation of the instrument

To ascertain the face and content validity of the instrument, the questionnaire was given to two experts in measurement and evaluation to examine and make necessary corrections and remark. These experts were given the purpose of the study and the research questions alongside with the questionnaire items to examine and make necessary corrections and remark. Their input was used by the researchers to modify the items of the questionnaire before final draft.

### Reliability of the instrument

The researchers used five students who were not participating in the main study, copies of the questionnaire were given to them to fill and these were collected immediately. The items of the questionnaire were reshuffled and re-arranged and then administered to the same teacher counselors 2 weeks later. These were collected and tested using the test-retest reliability method. The scores of data collected were correlated using person product moment correlation.

### Method of data collection

The researcher administered the questionnaire personally. She administered 30 copies of questionnaire to the selected respondents. They were collected from the respondents almost immediately, 30 copies of the questionnaire were retrieved which yielded 100%.

### Method of data analysis

In analyzing the data, the researchers used Mean and Standard Deviation answering the research question. The acceptance point for the items stood at 2.5 Mean score equally (i.e. SA<sup>4</sup>, SA<sup>3</sup>, SD<sup>2</sup>, and D<sup>1</sup>) totaling 10. Therefore, Mean score equal  $10/4 = 2.5$ . Furthermore, t-test statistics was also used to test for hypothesis.

## RESULTS

The results of the findings were presented in Tables 1 and 2 and analyzed using appropriate statistics.

Research Question 1: What is the state of consciousness about COVID-19 infections among students?

Table 1 showed the state of consciousness about COVID-19 infections among students. The students are very conscious of the fact about COVID-19 disease transmission by droplets when an infected person coughs sneezes or speaks (Male=3.64 and Female=3.94). They also agreed that, the COVID-19 infections can occur through kissing infected

**Table 1: Mean and standard deviation of responses on state of consciousness of male and female students about COVID-19 infections**

I/N	Item	Male		Female	
		$\bar{x}$	STD	$\bar{x}$	STD
Item 1	COVID-19 disease could be transmitted by droplets when an infected person coughs, sneezes, or speaks	3.64	0.81	3.94	0.24
Item 2	COVID-19 infections can occur through kissing infected person	3.29	0.8	3.69	0.46
Item 3	COVID-19 infections can occur through a handshake	3.07	0.8	3.44	0.5
Item 4	One can be infected through touching a contaminated surface and then touching eyes, nose, or mouth	3.50	0.82	3.69	0.46
Item 5	If an infected person uses the bathroom and does not wash their hands, they could infect things and people that they touch	2.86	0.91	3.31	0.68
Item 6	Some people who do not know they have been infected can give it to others though asymptomatic spread	2.93	0.7	3.31	0.68
Item 7	Community spread of COVID-19 infections takes place when someone gets the virus without any known contact with a sick person	3.07	0.7	3.19	0.95
Item 8	Food packaging from groceries or takeaway could contain small concentrations of corona virus particles	2.93	0.8	2.75	1.03
Item 9	COVID-19 infections can occur through blood transfusion	3.29	0.59	3.06	0.83
Item 10	COVID-19 infections can occur through sexual intercourse	3.07	0.59	3.13	0.99
	TOTAL	31.65	7.52	33.51	6.82

person. It was upheld that COVID-19 infections can occur through a handshake. One can also be infected through touching a contaminated surface and then touching eyes, nose, or mouth. Meanwhile, if an infected person uses the bathroom and does not wash their hands, they could infect things and people that they touch. In all, items 1 to 10 having mean score of 3.64, 3.29, 3.07, 3.50, 2.86, 2.93, 3.07, 2.93, 3.29, and 3.07 corresponding to standard deviations 0.81, 0.8, 0.8, 0.82, 0.91, 0.7, 0.7, 0.8, 0.59, and 0.59 were, respectively, accepted by the male respondents. In the same vein, items 1 to 10 having mean score of 3.94, 3.69, 3.44, 3.69, 3.31, 3.31, 3.19, 2.75, 3.06, and 3.13 corresponding to standard deviations 0.24, 0.46, 0.5, 0.46, 0.68, 0.68, 0.95, 1.03, 0.83, and 0.99 were, respectively, accepted by female students.

Research Question 2: What are the precautionary habits relating to COVID-19 infections among students?

From Table 2, the respondents agreed that use of masks, wash hands, and use sanitizers are precautionary measures to stop COVID-19 infections. They upheld that practicing social/physical distancing and avoiding crowded places are precautionary measures to stop COVID-19 infections (Male=3.57 and Female=3.81). Meanwhile, the female respondents appeared to be slightly more informed regarding eating citrus fruits and taking Vitamin C tablets as precautionary measures to stop COVID-19 infections with a mean score of 3.56 when compared with their male counterpart with a mean score of 3.07. The respondents agreed that covering the nose and mouth with bent elbow or a tissue

when coughing or sneezing are precautionary measures to stop COVID-19 infections. In all, items 11 to 20 with mean scores of 3.50, 3.57, 3.07, 3.43, 3.43, 3.43, 3.21, 3.00, 3.07, and 3.29 corresponding to standard deviations of 0.63, 0.62, 0.88, 0.49, 0.49, 0.62, 0.67, 0.65, 0.7, and 0.96 were all accepted, respectively, by male students and their female counterpart also accepted items 11 to 20 with mean scores of 3.94, 3.81, 3.56, 3.56, 3.75, 3.38, 3.25, 3.13, 3.19, and 3.81 corresponding to standard deviations of 0.24, 0.39, 0.5, 0.5, 0.43, 0.7, 0.66, 0.78, 0.73, and 0.39, respectively.

Hypothesis 1: There is no significant difference on male and female student's consciousness about COVID-19 infections.

Table 3 shows that at 0.05 level of significance and 28 degree of freedom, the calculated  $t = 0.706$  is less than the critical  $t = 2.048$ ; therefore, the

**Table 2: Mean and standard deviation of responses of male and female students on precautionary habits relating to COVID-19 infections**

I/N	Item	Male		Female	
		$\bar{x}$	STD	$\bar{x}$	STD
Item 11	Use of masks, wash hands and use sanitizers are precautionary measures to stop COVID-19 infections	3.50	0.63	3.94	0.24
Item 12	Practicing social/physical distancing and avoiding crowded places are precautionary measures to stop COVID-19 infections	3.57	0.62	3.81	0.39
Item 13	Eating citrus fruits and taking vitamin C tablets are precautionary measures to stop COVID-19 infections	3.07	0.88	3.56	0.5
Item 14	Avoiding frequent touch of eyes, nose, or mouth are precautionary measures to stop COVID-19 infections	3.43	0.49	3.56	0.5
Item 15	Covering the nose and mouth with bent elbow or a tissue when coughing or sneezing are precautionary measures to stop COVID-19 infections	3.43	0.49	3.75	0.43
Item 16	Willingness to do a COVID 19 test is a precautionary measure to stop COVID-19 infections	3.43	0.62	3.38	0.7
Item 17	Avoiding travel when possible, visiting with family and friends by phone and computer instead of in person are precautionary measures to stop COVID-19 infections	3.21	0.67	3.25	0.66
Item 18	Avoiding blood transfusion as much as possible is a precautionary measure to stop COVID-19 infections	3.00	0.65	3.13	0.78
Item 19	Avoiding sexual intercourse with infected person is a precautionary measure to stop COVID-19 infections	3.07	0.7	3.19	0.73
Item 20	Self-isolation/quarantine when sick, staying in a separate bedroom away from others in the home are precautionary measures to stop COVID-19 infections	3.29	0.96	3.81	0.39
	Total	33	6.71	35.38	5.32

null hypothesis is accepted, the researchers conclude that there is no significant difference on male and female students consciousness about COVID-19 infections.

Hypothesis 2: There is no significant difference on male and female student's precautionary habits relating to COVID-19 infections

Table 4 shows that at 0.05 level of significance and 28 degree of freedom, the calculated  $t=1.066$  is less than the critical  $t=2.048$ ; therefore, the null hypothesis is accepted as the P value is greater than 0.05, the researchers conclude that there is no significant difference on male and female students precautionary habits relating to COVID-19 infections.

## DISCUSSION

Research question 1 examined the state of consciousness about COVID-19 infections among students. The respondents agreed that COVID-19 infections can occur through blood transfusion. This finding is contrary to the views of Bassil *et al.* [11] who reported that there is no evidence at present that coronaviruses can be transmitted by blood transfusion. However, the COVID-19 pandemic has impacted medical care among patients as blood donations were limited during the lockdown period. Mobility constraints have reduced the number of blood donations and supplies and the safety of blood transfusion was a matter of considerable concern [12]. The respondents agreed that COVID-19 disease could be transmitted by droplets when an infected person coughs, sneezes, or speaks. In most cast, droplet transmission occurs when a person is in close contact (within 1 m) with someone who has respiratory symptoms (e.g. coughing or sneezing) and is therefore at risk of having his/her mucosae (mouth and nose) or conjunctiva (eyes) exposed to potentially infective respiratory droplets [13]. Most respondents suggested that community spread of COVID-19 infections takes place when someone gets the virus without any known contact with a sick person. This finding was upheld by Zeng *et al.* [14], who suggested that community transmission is evidenced by the inability to relate confirmed cases through chains of transmission for a large number of cases, or by increasing positive tests through sentinel samples (routine systematic testing of respiratory samples from established laboratories). In Table 1, the respondents agreed that food packaging from groceries or takeaway could contain small concentrations of corona virus particles. This is consistent with the results of Rizou *et al.* [15], who argued that there is no evidence that COVID-19 can be spread through contact with food or food packaging. COVID-19 is generally thought to be spread from person to person. However, it is always important to practice good hygiene when handling food to prevent any food-borne illnesses.

Research question 2 sought to find out the precautionary habits relating to COVID-19 infections among students. The respondents were unanimous that avoiding sexual intercourse with infected

**Table 3: Summary of t-test on male and female students' consciousness about COVID-19 infections**

Source	n	Mean	SD	t-cal	t-crit	$d_f$	p value
Male	14	31.65	7.52	0.706	2.048	28.00	0.4860
Female	16	33.51	6.82				

Sig. < 0.05

**Table 4: Summary of t-test of male and female students' precautionary habits relating to COVID-19 infections**

Source	n	Mean	SD	t-cal	t-crit	$d_f$	p value
Male	14	33	6.71	1.066	2.048	28.00	0.29553
Female	16	35.38	5.32				

Sig. < 0.05

person is a precautionary measure to stop COVID-19 infections. The result agrees with Rothe *et al.* [16] who reported that viral load of COVID-19 may remain high in convalescent patients which suggests the presence of the virus in the semen of both symptomatic and convalescent patients. In addition, the presence of COVID-19 in feces suggests the possibility of transmission via the fecal-oral route [4]. Moreover, the respondents upheld that eating citrus fruits and taking vitamin C tablets are precautionary measures to stop COVID-19 infections. In the research by Kucharski *et al.* [17], authors argued that there is no scientific evidence that orange, lemon or turmeric prevents COVID-19. However, it is recommended consuming adequate fruit and vegetables as part of a healthy diet. Maragoni-Santos *et al.* [18] also upheld that eating hygienically prepared and well-cooked chicken or non-vegetarian food is safe and does not cause the spread of the coronavirus. On the whole, respondents suggest that self-isolation/quarantine when sick, staying in a separate bedroom away from others in the home are precautionary measures to stop COVID-19 infections. In line with this, Lindequ *et al.* [19] pointed further that avoiding travel when possible, visiting with family and friends by phone and computer instead of in person are precautionary measures to stop COVID-19 infections. Furthermore, willingness to do a COVID 19 test is a precautionary measure to stop COVID-19 infections [20].

The results of this study provide a deeper insight into the perceptions, feelings, opinions, and experiences of male and female students during the COVID-19 pandemic. Furthermore, the results related to clinical training could be useful in understanding the experiences of male students around Anambra state, as well as experiences of other future health care professionals (those, e.g. studying medicine, physiotherapy, or biomedicine), who are, during their studies, trained in real clinical environments, in direct contact with patients and hospital.

This study will be an incentive for higher education institutions and the academic community to undertake precautionary and preventive strategies toward COVID-19 pandemic. In addition, the inductively formed categories in this study will be a stimulus and a possible basis for the development of newly structured instruments, and the design of further qualitative and quantitative studies relating to COVID-19 pandemic. In addition, the results give useful feedback on students' perceptions of the effectiveness of actions taken by the faculty executives and teachers in this crisis situation. Furthermore, the study provides details that can facilitate the design of student support strategies and provide a safe learning environment. Therefore, to establish effective support mechanisms for students in a timely manner, it is important to have a comprehensive insight into the students' perceptions, feelings, and experiences occurring in crisis situations.

## CONCLUSION

The study has been able to survey consciousness and precautionary habit relating to COVID-19 infections among students in Nwafor Orizu College of education, Nsugbe. The finding has revealed that COVID-19 disease could be transmitted by droplets when an infected person coughs, sneezes, or speaks. It has also shown that use of masks, wash hands, and use sanitizers are precautionary measures to stop COVID-19 infections. The study also shows that practicing social/physical distancing and avoiding crowded places are precautionary measures to stop COVID-19 infections. According to the World Health Organization (WHO), people should wear a face mask in public when it is not possible to maintain at least 1 m distance from others.

Hence, people should cover their mouth and nose with their bent elbow or tissue when they cough or sneeze. By following good "respiratory hygiene," they protect the people around them from viruses, which cause colds, flu and COVID-19. Based on the above, it can easily be concluded that the world has a long history of successful efforts to prevent or cure widespread infections. In COVID-19, which has no approved treatment,

it is very important to prevent the spread in the society. The main points in preventing the spread in society are hand hygiene, social distancing, and quarantine. With increased testing capacity, detecting more positive patients in the community will also enable the reduction of secondary cases with stricter quarantine rules. Based on the findings of the study, the following recommendations are made:

- The Minister of education should direct all schools administrators to come up with strategies to cover up the one month teaching and learning gap created as result of the COVID19 schools closed down
- The schools administrators should ensure teachers develop strategies to cover all their scheme of work for the term before going for internal examinations
- The government should provide all infrastructural facilities that will support online education in all the tertiary in Anambra state in particular to prevent any eventuality of future close down of schools because of pandemic.
- Students should seek guidance from WHO, health-care provider, national public health authority or employer for accurate information on COVID-19 and whether COVID-19 is circulating where there live.
- Seminars, workshops, and conferences should be organized occasionally for both the teachers and their students.

## COMPETING INTERESTS

The author declare that no conflict of interest exist

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