



KNOWLEDGE AND BEHAVIOURS OF UNDERGRADUATES NURSING OF COVID; COUNSELORS' JOB ROLE ON WORK ETHICS DURING COVID-19.

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Abstract

The study examines the perception, knowledge and preventive behaviours of undergraduate nursing students: Counselor's job role on work ethics during COVID 19 in Cross River State, Nigeria. Three research questions and one hypothesis were formulated to guide the study using a "descriptive survey design". The sample size of 122 from all the wards in the Teaching Hospital were randomly selected. The instrument for data collection was four section questionnaires with reliability coefficient of 0.72. Data was analyzed using descriptive statistics while hypothesis was tested using chi-square test analysis. The findings reveal that 74 (60.7%) respondents had good perception. Majority 95(92.9%) had good knowledge while good preventive behaviours practice was 103 (84.4%). The chi-square test analysis showed a significant associating between perception and preventive behaviours when X^2 calculated of 14.6 was greater than X^2 calculated of 3.841 with degree of freedom at 0.05 level of significance. Based on these findings, continuous health education on preventive practices and provision of health insurance coverage for Nursing is advocated.

Keywords: Perception, counseling, Preventive Behaviour, Pandemic COVID-19

1.0 Introduction

Nursing or tending students is as important as the profession itself. However, it is imperative for undergraduate nursing students, as future healthcare professionals, to be precautious of COVID-19 and observe essential precautionary behaviours to stop its multiplication. Psychoanalyst play

fundamental roles in promoting job ethics and humanizing care students on the significance of observing basic guiding principles.

Conversely, Counselors are armed with information on the spread of COVID-19 and the precautionary actions as suggested by health establishment such as wearing masks,

preventing apt sanitation, public and avoiding huge gatherings. Apart from the above roles, Counselors also discuss the consequences of non-compliance with these events, such as the peril of advance virus, distribution the virus to others and the potentials impact on patient and the healthcare organization. Correspondingly, counselors also highlight the magnitude of ethical behavior and professionalism in healthcare establishment by discussing the role of nurses in preventing the spread of COVID-19. These include the importance of being a role model, following the guidelines, and advocating for patient's safety.

Howbeit, many of the counselors provide resources and support for students who maybe struggling with their mental health due to the stresses of the pandemic. This can include information on coping strategies stress management techniques, and mental health resources available on campus. More so, many counselors promote ethical behavior and professionalism among undergraduate nursing students by providing education and support on the importance of perception knowledge and preventive behavior in the prevention of COVID-19 but situation remains unsolved. The current Corona virus (COVID-19) pandemic has impacted and changed lives on a global scale since its occurrence and spread from China in late 2019. It has caused millions of infections, and thousands of deaths global, infection by SARS-CoV-2 in humans occurs largely finished air dews, adjacent interaction with disease-ridden individuals, particularly mucus tissues excretions from nose, mouth, or eyes, adulterated surfaces, and digestive tract transmission. The clinical appearance is that of a respiratory infection with symptom

severity varying from a mild common cold-like illness, to a severe viral pneumonia, leading to acute respiratory distress syndrome that is potentially fatal especially to the nursing undergraduate during their clinical visits to the hospitals, it has changed their perception about life, and their priorities regarding daily life routine have also been affected. Such a global situation can only be controlled with people's consent to behave in a particular manner instructed by health care providers such as frequent hand washing, using the facemask, avoiding gatherings, and maintaining permissible distance.

However, the control of this pandemic still remains unachievable in many African countries including Nigeria, despite the application of some strict preventive and control measures. More than half of the population use to wash their hands regularly with soap and wear facemasks as a precaution regardless of assessing the presence of the disease symptoms in them. Moreover, it is essential to protect healthcare professionals, maintain healthcare continuity, and prevent disease transmission to other individuals. Therefore, efforts are being made all over the world to raise awareness and impact on the knowledge of undergraduate nursing students in University of Calabar to prevent the spread of the disease with the aid of adherence to preventive behaviour to minimize the negative perception of nursing students thus the study sought to investigate perception knowledge and preventive behaviours towards COVID-19 among undergraduate nursing students in University of Calabar. This was the reason why the lamented on the disparities cause by the deadly virus.

The World Health Organization admitted coronavirus disease 2019 (COVID-19) disease as a pandemic. Coronavirus 2019 (COVID-19) is an evolving severe, serious, acute, respiratory corona virus simplicity (Wang et al., 2020). It was first exposed in late December 2019 in Wuhan, Hubei Province, China, then range worldwide 2 months later (World Health Organization [WHO], 2020a). The World Health Organization (WHO), on December 31, 2019, acknowledged an explosion of the incidence of mysterious effects of pneumonia infection in Wuhan, China (World Health Organization, 2020). Later, this illness was defined as a novel Coronavirus infection then advance affirmed as a public health emergency of international worries by January 30, 2020 (World Health Organization, 2020). The novel virus was renamed by the International Committee on Taxonomy of Viruses, as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) that effects the 2019 Coronavirus disease (COVID-19) (WHO, 2020; Lu, Stratton & Tang, 2020) COVID-19 is caused by a single-stranded RNA virus fitting to the Coronaviridae family (Hassan, Sheikh, Jamal, Ezeh & Akhtar, 2020). This infection is related to the formerly occurred SARS-CoV and the Middle East respiratory disease Coronavirus (MERS-CoV). Still, dissimilar these, its epidemics have occupied a worldwide epidemic sequence. Subsequently the major explosion of the long-established cases of the COVID-19 in Wuhan, China (WHO, 2020; Huang, Wang, Li, Ren, Zhao & Hu, 2020), the world has witnessed severe extraordinary death and disease due to this infection causing in severe public health crises. Clarifications, have revealed that the eruption of COVID-19 has

severely devastated the healthcare scheme and the enlightening scheme of an nursing student both clinical and classroom undertakings has been overstated owing to the explosion of the established belongings possibly by the influence of awareness on the preventive measures, the undesirable insight of the undergraduate nurses can be surmounted in spite of the threatening report and mode of transmittable most especially in crowded classes.

Notwithstanding the level of spread in health systems in high-income countries, they seemed to be the worst hit in terms of disease weight and the total COVID-19 interrelated deaths. The epidemic curve is still rising in Russia and some low- and middle-income countries like India, Peru, and Chile (Worldometers, 2020). This is a strong warning to the low- and middle-income countries in Africa especially with the enormous socio-economic and health-related encounters observed in the continent (Acter, Uddin, Das, Akhter, Choudhury & Kim, 2020). No proven dealings or vaccines are available to control COVID-19 and thus pose a significant threat to health care delivery. To flatten the curves, most nations, including African countries, have applied strict prevention and control measurements to curb the disease including regulations such as general lockdown, obligatory home quarantine, ban on public gatherings, international flights restrictions and raising awareness on proper hand wash, hygiene, and sanitation as well as social distancing (Bruinen de Bruin, Lequarre, McCourt, Clevestig, Pigazzani & Zare Jeddi, 2020).

The clinical appearance is that of a respiratory infection with symptom severity varying from a mild common cold-like

illness, to a severe viral pneumonia, leading to acute respiratory distress syndrome that is potentially fatal (WHO, 2020a). COVID-19 had caused more than 13 million confirmed cases and killed at least 580,000 worldwide up to the 17th of July 2020. Cases are expected to increase significantly in the coming months (WHO, 2020a). COVID-19 is quickly transmitted by droplets formed when an individual coughs or sneezes around those in close contact (Ali et al., 2020). Health care providers are at risk for transmission (Chang et al., 2020). It is essential to protect healthcare professionals, maintain healthcare continuity, and prevent disease transmission to other individuals (Chang et al., 2020).

Like other countries, Nigeria was affected by the virus pandemic. Some measures to control the transmission of COVID-19 were adopted by the Nigerian Federal Government. They included a stop to public transport, closing of public spaces, social distancing, and care of positive and suspected cases. As a result of the rapid spread of the disease, it was necessary to benefit from the experience of other countries to prevent the exhaustions of healthcare staff. Therefore, it was important that in University of Calabar, undergraduate nursing students ensure the readiness especially those in their final years of study.

1.1. Theoretical framework

Theory of Reasoned Action

This theory was developed by Martin Fishbein and Icek Ajzen in 1980 and later revised by Ajzen (1985). The major assumption in the theory is that people are usually rational and make predictable use of information available to them. In this case,

the visually impaired and sighted would consider consequences of nurse-patient communication before engaging in them.

- **Perceived behavioural control:** Perceived behavioural control refers to the perceived ease or difficulty of performing the behavior and the amount of control one has over the achievement of personal goals. Perceived behavioural control encompasses dispositional factors of information a person has, person's ability, emotions and compulsion of the person in relation to a specific behaviour (Ajzen, 1991). In other words, it reflects the possibility of executing behaviour with no regard to the intention formed by the individual to execute this behaviour, and encompasses information on external and internal factors that may facilitate or impede behaviour (Ajzen, 1985, 1991). Perceived behavioural control is composed out of self-efficacy and controllability. Self-efficacy indicates the ease of individual in performing a behaviour, while controllability indicates the amount of control individual perceives to hold over a behaviour. Perceived behavioral control also has direct effect on communication which entails knowledge sharing.

- **Subjective norm:** Subjective norm refers to the beliefs of relevant others in relation to the behaviour, i.e. social norm and pressure concerning a certain behaviour. Others may refer to the family or friends circle, colleagues from work, neighbors or the society as a whole. These actors of social environment are often a source of valuable information about the behaviour that can reduce uncertainty and determine whether the behaviour is acceptable or not (Ajzen & Fishbein, 2005). The behaviour is the consequence of one's desire to act in

compliance with significant referent others perception of a model behaviour (Pavlou & Fygenon, 2006). Subjective norm is determined by two components, one being normative beliefs stemming from the relevant social group, which are accessible at will by the individual, and the other being the motivation to comply with the referent others (Ajzen & Fishbein, 1975). Subjective norm's relationship with intention to perform a behaviour where it has been shown to be a significant factor in accepting behaviour.

- **Attitudes:** Attitude is a construct that reflects person's state of mind in regard to a psychological object or a behaviour that has been formed under the influence of beliefs. Attitude toward a certain act is proposed to be a function of the act's perceived consequences and of their values to the person (Ajzen & Fishbein, 2000). Usually attitudes are evaluated and captured in such attributes as pleasant-unpleasant, harmful-beneficial, likable-dislikable, and good-bad. (Ajzen & Fishbein 2000). Strong attitudes are a good predictor of a behaviour, as they are relatively stable over time, and unaffected by persuasion, especially when they are supported by chronically accessible beliefs (Ajzen, 2005). It is even possible, for a person to hold two different attitudes toward an object in the same context at the same time, one attitude explicit and the other implicit (Ajzen, 2005).

1.2. Literature Review

2.1 Perception of nurse on covid 19

Perception students' observation of evidence on COVID-19. Nearly all students were aware of the COVID-19 epidemic (99.2%). A vast mainstream of the students did not know any person within their speedy community with a confirmed COVID-19 infection (92.7%).

However, 45 students (3.7%) knew someone with a confirmed case in their communities, and another 24 students (3.7%) knew someone with suspected COVID-19 infection in their communities. The majority of the students had received their information on COVID-19 primarily from social media (71.0%), relatives working in the medical discipline (10.5%), television (6.6%), university (6.1%), newspaper (4.7%), and friends (0.2%). Moreover, the majority of the students reported that they had not learned of the coronavirus from any of their nursing courses (72.1%) and had a family member working in any healthcare facility (54.9%). Over three-fourths of the students were hoped that the government (89.1%) and MOH (86.5%) were doing a good job responding to the COVID-19 outbreak in the country. The mean scores in the perceived knowledge of COVID-19 and perceived knowledge of the prevention of COVID-19 were 7.85 (SD =1.87) and 8.51 (SD=1.81), respectively, on a scale of 0–10.

Knowledge of COVID-19 and the overall average score in the knowledge questionnaire was 9.85 (SD =1.62, range =0–12), which is equivalent to 82.1%. For the conceptual subscales, the students received the highest percentage of 87.6% in "prevention and control" (M =4.38, SD =0.79, range =0–5), followed by 81.0% in "clinical exhibition" (M =3.24, SD =0.84, range =0–4) and 74.3% in "transmission route" (M =2.23, SD =0.73, range =0–3). Table 2 indicates that the maximum percentage of precise responses was recorded in the statement on isolating someone exposed to COVID-19 for 14 days (98.5%), followed by isolating and treating COVID-19 patients for the prevention of the disease's spread (98.0%), avoiding crowded

places for the prevention of the spread (95.5%), transmission of the virus through respiratory droplets (92.0%), common clinical manifestation of COVID-19 (91.6%), and significant of treating the symptoms.

Albaqawi et al. COVID-19 and Nursing Education disease in helping patients recover (90.5%). Most students were not knowledgeable about that possibility that eating or being in contact with wild animals can cause infection (% of correct response =47.1%). Pearson's correlations revealed positive correlations between COVID-19 knowledge and perceived knowledge of COVID-19 ($r=0.23$, $p<0.001$) and perceived knowledge on COVID-19 prevention ($r=0.27$, $p<0.001$). One-way ANOVA showed significant differences on COVID-19 knowledge in terms of university ($F=6.19$, $p<0.001$) and academic levels ($F=4.01$, $p=0.008$). Students from Universities B and G had a higher level of knowledge than students from Universities D and E. Senior students scored significantly higher than sophomores ($p<0.001$) and juniors ($p=0.037$). Female participants scored higher than male participants ($t=-3.09$, $p=0.002$; Table 3) COVID-19.

1.3 Knowledge Of Nurses On Covid 19

The mean knowledge score was 14.7 ± 2.3 , from a maximum obtainable score of 20. Most respondents (61.6%, $n = 885/1437$) had satisfactory knowledge of the disease, and the internet was the main source of information for most respondents (83.7%, $n = 1204/1437$). Moreover, most (78%, $n = 1127/1437$) of the respondents knew that COVID-19 was different from the common cold. The majority of the respondents (83%, $n = 1195/1437$) knew that it is possible to

have asymptomatic COVID-19 positive patients. Most of the participants (95%, $n = 1365/1437$) also knew that most symptoms appear between 1–14 days. Most respondents also correctly identified several symptoms of COVID-19, knew how to kill (inactivate) the virus, and recognized the importance of hand wash in reducing the chances of contracting the disease. All of the independent variables (age, gender, level of education, background, and nationality) were significantly ($p < 0.05$) associated with the knowledge of respondents about COVID-19.

1.4 Preventive Behaviour Of Nurse On Covid 19

In a study conducted by the majority of our participants (81.8%) stated that they can participate in providing care to patients with COVID-19. In line with our study, high percentage (74.2%) of medical and nursing students in the Spanish study agreed to caring for COVID-19 patients if the situation required it (Cervera-Gasch et al., 2020). Another study conducted among medical staff at a psychiatric hospital in China reported that 77.17% of the participants expressed a willingness to care for psychiatric patients with COVID-19 disease (Shi et al., 2020).

Regarding prevention practices, the vast majority of participants in this study avoided crowded places, such as markets and grocery stores during COVID-19 pandemic. Similar results were reported in an earlier study, among Chinese residents, in which the vast majority of participants (96.4%) had not visited any crowded places during the confinement period (Zhong et al., 2020). Similarly, a recent study among the Malaysian public showed that 83.4% of participants avoided going to crowded places

such as weddings (Azlan et al., 2020). In our study, the majority of participants avoid visiting their families and their neighbours in this pandemic period. Similarly, 92.5% of the participants in an Iranian study stated that they cancelled or postponed meetings with friends and eating out because of COVID-19 (Taghrir et al., 2020). This may be explained by the fact that COVID-19 is a highly contagious infection and has infected a large population across the world.

Evidence from the literature showed that hand hygiene is one of the most important measures to prevent and control infectious disease including COVID-19 (Cheng et al., 2020; Jefferson et al., 2009; Paludan-Müller et al., 2020). In this study, only 47.4% of the participants reported that they frequently wash their hands. In contrast to our findings, an Indian study on medical students reported that 96.7% washed their hands more often than usual during the ongoing coronavirus pandemic (Taghrir et al., 2020). In addition, the WHO's guidelines recommend the frequent use of alcohol-based sanitizer and considered this practice one of the most effective preventative measures in the community to prevent the spread of the new coronavirus (WHO, 2020). While some studies on COVID-19 have confirmed the high frequent use of sanitizers among their responders (Azlan et al., 2020; Roy et al., 2020), in the current study, only less than half of the participants stated that they frequently use alcohol-based sanitizer. This might be due to the shortage of hand sanitation products observed in the first weeks of the pandemic, as a result of huge demand. There are many reports across the world describing the great surge in demand of alcohol-based sanitizers leading to severe shortage in their supply (Berardi et al., 2020). The cost of the

alcohol-based sanitizer may also play a role in participants' access to these products. A recent Kenyan study on COVID-19 reported that the expensive price was a significant barrier for 53% of the participants to use hand sanitizers (Austrian et al., 2020).

As preventative measures to limit the spread of COVID-19, the Ministry of Health of Morocco requires wearing face mask when outside the home. In the current study, 93.4% of the participants declared wearing face mask outside the home.

However, the inappropriate practice observed in the remaining participants may be explained partially by the message spread by the Ministry of Health of Morocco. At the beginning of the COVID-19 pandemic, the Ministry of Health of Morocco stated that incorrect use of face masks may increase the rate of transmission. Furthermore, the Ministry of Health of Morocco further advised that face masks should only be used by people showing symptoms of COVID-19. Mask shortages were observed at the beginning of the COVID-19 pandemic in many countries (Wu et al., 2020), including Morocco. This may also explain the behaviour of some participants of this study towards wearing face mask. Many previously published studies indicate a high percentage of wearing face mask outside home during the current COVID-19 pandemic (Chen et al., 2020; Kumar et al., 2020; Zhong et al., 2020). For instance, a study conducted by Kumar et al., among Pakistan healthcare workers, reported that 93.9% of the participants wear a mask in public places to protect themselves against COVID-19 (Kumar et al., 2020). Also, another study in China indicated that almost all participants (98%) wore face masks when going out during this COVID-19

pandemic (Zhong et al., 2020). However, wore face mask was less common in other studies; for example, in study by Azlan et al. only 51.2% of the participants wore a face mask when going out in public (Azlan et al., 2020).

2 Methods

2.1 Researches Design

The method employed to carry out this study. The research design adopted for this study was the descriptive design which enabled the researcher to assess perception knowledge and preventive behaviours towards COVID-19 among undergraduate nursing students in University of Calabar.

2.2 Setting

The setting for this study is the University of Calabar, Calabar and the site is the department of nursing science. The University of Calabar was established in 1975 as a non-profit public higher institution. The institution is located in the city of Calabar at latitude 4.95N and longitude 8.34E and is bordered on the north by the University of Calabar Teaching Hospital and satellite town, by the south and east by the Great Kwa River, and by the west by sections of the Qua community like Etta-Agbor and Mary Slessor Roads. The area is located within the rain forest belt, and therefore experiences raining season from March to October with its peak in July and dry season from November to February every year. The department of nursing is one of the departments in the hospital.

2.3 Population of the study

The population of this study comprised all nursing workers in the hospitals in Cross River State; the reason for the choice of nursing is that they have direct dealings with patients. The accessible population

comprised all nursing who were present during the time of data collection. A total of 122 were used for the study.

2.4. Sample & Sampling Technique

The sampling technique used for this study was simple random sampling technique. A ballot paper written yes and no were folded into a basket and thoroughly stirred and allowed the nursing based on their level of interaction with patients to pick randomly. A total of 37, 43 and 42 were randomly selected respectively making a total one hundred and twenty-two (122) nursing.

2.5. Instrumentation & Reliability:

The instrument used for data collection from the respondents was a self-administered structured questionnaire. The instrument was divided into four (4) sections; Section A: Socio-demographic data of respondents. Section B: perception of nursing worker towards covid-19. Section C: knowledge of nursing towards covid-19 Section D: assess preventive behaviours towards covid-19 among nursing. To determine the face validity, the structured questionnaire designed by the researcher was given to the supervisor for correction, measurement of objectives and modification. The corrections were effected accordingly before administering it to the respondents. A test-retest approach was used. To ascertain the reliability of the instrument, twenty-two (22) copies of the questionnaire were administered to nurses from the School of Nursing, University of Calabar Teaching Hospital who were not student under study. The

reliability coefficient of all items in sections B, C and D were computed. This recorded 0.72. A total of one hundred and twenty-two (122) questionnaires were administered to the respondents who form part of the study with an on-the-spot retrieval.

2.6. Statistical Tools

Data were analysed using descriptive analysis frequency count, tables and simple percentages. Chi-Square test statistic will be used to test the hypothesis using Statistical Package for Social

Sciences (SPSS) software version 22 at 0.05 level of significant. In the course of the study, the researcher encountered some difficulties such as financial, time constraints complexity of the respondents, unavailability of related literature and empirical reviews. However, the researcher was able to overcome some challenges through his well thought out approach by explaining the purpose of the study to the respondents and assuring them confidentiality of information.

3 Results

Table 1: Perception of nursing towards covid-19

Statement	Agreed	Disagreed
Covid-19 claims the lives of the individual who got injected without urgent medical attention	92 (75.4%)	30 (24.6%)
Symptoms of covid-19 are like that of malaria	50 41.0%	72 59.0%
Children and older people are always affected by Covid-19	80 65.6	42 34.4%
Health workers are the only group of people that are at risk of covid-19	62 (50.8%)	60 (49.2%)
Covid-19 vaccines protect an individual from the virus itself	86 70.5%	36 29.5%

Table 1 shows that out of the 122 respondents, 92(75.4%) agreed that covid 19 claims the lives of the individual who got infected without urgent medical attention. Majority 72(59.0%) disagreed that symptoms of covid 19 are like that of malaria. 80 (65.6%) agreed that children and older adult are always affected by covid-19. 42(34.4%)

disagreed. 62(50.8%) respondents agreed that health workers are the only group of people that are risk of covid 19 while 60 (49.2%) disagreed. In covid-19 vaccines protect an individual from the virus itself. 86 (70.5%) respondents agreed and 36 (29.5%) disagreed.

Summary of Perception of Nursing towards covid-19 virus

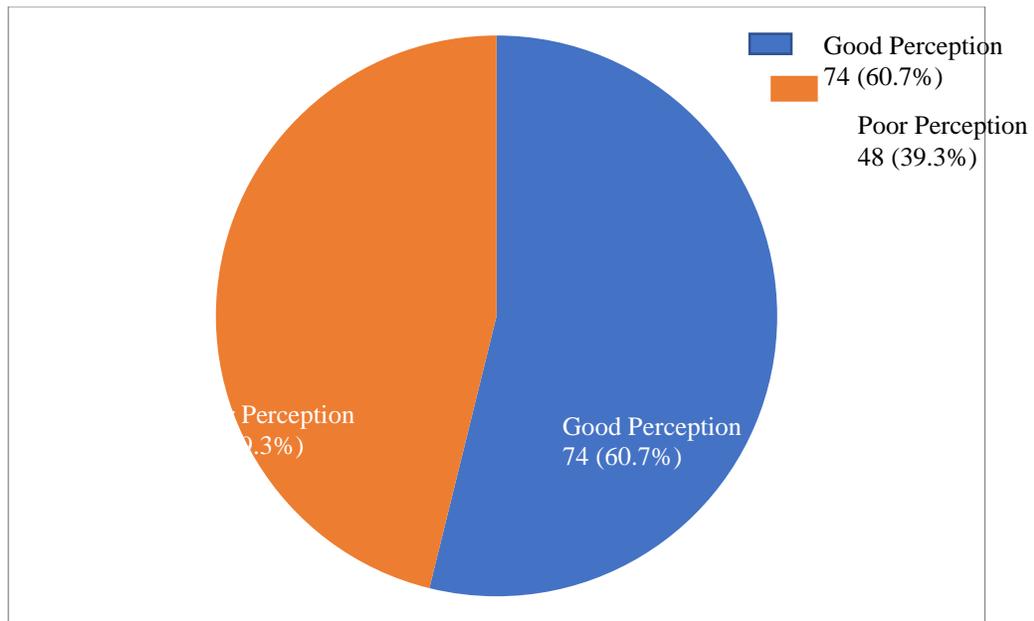


Fig 1 summary of perception of covid 19 among Nursing

Table 2:

Knowledge Of Nursing Towards Covid-19

N=122		
Statement	Yes	No
Covid-19 is a communicable respiratory tract infectious disease caused by new strain of corona virus	86 (70.5%)	36 (29.5%)
It is a pandemic infectious disease found all over the world	100 (82.0%)	22 (18.0%)
Covid-19 is highly transmitted in a crowded or social environment	90 (73.8%)	32 (26.2%)
Covid-19 rout of transmission are contact, airborne and droplets	95 (77.9%)	27 (22.1%)
Covid-19 can be prevented through social distancing and the use of personal protective equipment (PPE)	105 (86.1%)	17 (13.9%)

Table 2 shows participants' level of knowledge on covid-19. Out of 122 study participants, 86(70.5%) knew that covid-19 is a communicable respiratory tract infectious disease caused by new strain of corona virus.

On the statement, covid-19 is a pandemic infection found worldwide, 100(82.0%) said "yes". As for the statement, covid-19 is highly transmitted in a crowd or social environment, 90(73.8%) said "yes"

Regarding the statement covid-19 rout of transmission are contact, airborne and droplet, 95(77.9%) of the respondents said yes, concerning the statement covid-19 can be prevented through social distancing and the use of PPE, 105(86.1%) said yes, for computation purposes, the final score for participants knowledge on covid-19 was obtained by adding up participant's scores in

all items in section C measuring knowledge. The minimum score was 6 while the maximum score was 15 participants who score 6-10 were grouped as those with poor knowledge towards covid-19 while those with score between 10-15 were regarded as those with good knowledge towards covid-19. Therefore, 95(77.9%) had good knowledge towards covid-19. Acknowledge

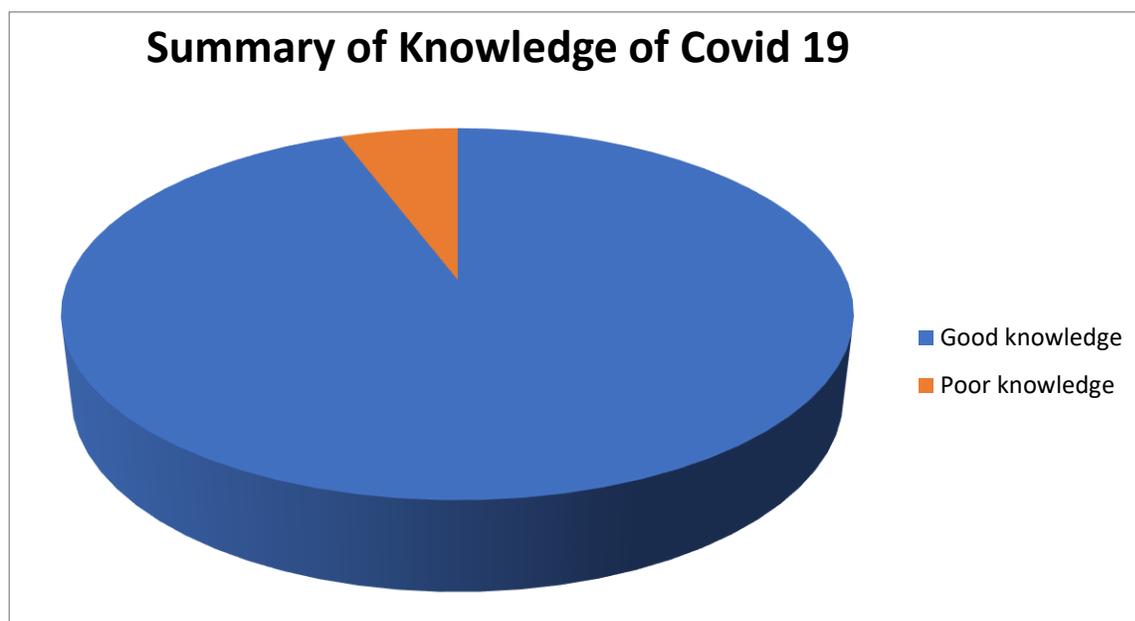


Fig 2 Summary Of Knowledge Of Covid 19 Among Nursing.

Summary of knowledge of covid-19 among Nursing revealed that majority of the 95 (77.9%) had good knowledge while few 27 (22.1%) had poor knowledge.

TABLE 3: Prevention Of Covid-19 Among Nursing In Cross River State N=122

Statement	Agreed	Disagreed
Maintaining social distancing can help prevent the spread of covid-19	122 (100%)	-
Hand washing with running water is one of the ways of preventing the spread of covid-19	122 (100%)	-
Wearing of face mask and face shield can help prevent the spread of covid-19	108 (88.5%)	14 (11.5%)
The use of hand sanitizer is known to limit the spread of covid-19	95 (77.9%)	27 (22.1%)
Vaccination against covid-19 can boost immunity thus prevent the spread of covid-19	70 (57.4%)	52 (42.6%)

Table 3 shows prevention of covid-19. Out of 122(100%) said yes to the statement maintaining social distancing can help prevent the spread of covid-19. On the statement hand washing with running water is one of the ways of preventing the spread of covid-19, 122(100%) said yes. As for the statement wearing of face mask and face shield can help prevent the spread of covid-19, 108(88.5% said yes. Regarding the assertion, the use of hand sanitizer can limit the statement vaccination against covid-19 can boost immunity this prevent the spread of covid-19, 70(57.4%) said yes. However, the final summary for prevention of covid-19 among undergraduate nursing students was obtained by computing the sum of scores on all items in section D. the minimum score was 6 and the maximum score was 15. Participants who scored 6-10 were grouped

as those with poor preventive behaviour towards covid-19 while those who scored 10-15 were categorized as those with good preventive behaviour towards covid-19.

Test of Hypothesis

Ho: There is no statistical association between perception of covid-19 and preventive behaviours among nursing. Chi-square (χ^2) was used to analysed this hypothesis at 0.05 level of significance. The independent variable (perception of covid-19) was measured in section B of the questionnaire while the (preventive behaviours.) was measured in section C of the questionnaire. Summary of the result of analysis of the questionnaire is presented in table 4.5 below.

Table 4: Chi square Analysis Showing Association between Perceptions of Covid 19 and Preventive Behaviours Practices among Nursing

Perception of Covid 19	Preventive behaviour practice of covid 19		To	X ² Crit	X ² Cal
	Good preventive behaviour practices	Poor preventive behaviour practices			
Good perception	70 (62.5%)	4 (11.5%)	74		
				3.841	14.6
Poor perception	33 (40.5%)	15 (7.5%)	48		
Total	103 (84.4%)	19 (15.6%)	122 (100%)		

Significant at (P<.05); df 1, X² calculated 14.6, X² critical 3.841.

The result of the chi-square test analysis as presented on table 5 of association between perceptions of covid 19 and preventive behaviours practices among Nursing revealed that the chi-square calculated of 14.6 was greater than the X² critical of 3.841 at 1 degree of freedom with 0.05 level of significance. With this result the null hypothesis was rejected. This implies that there was a significant association between Nursing perception and preventive behaviours practices towards covid 19.

4.4 Test of Hypothesis

The findings of this study as revealed in table 5 indicated that the null hypotheses which state that there is no significant relationship between nursing perception and preventive behaviour towards covid-19 in, Cross River State was rejected. This implies that there was a significant association between nursing perception and their preventive behaviour towards covid-19 in Cross River State as most of the worker had good perception and is aware of covid-19. Based on this premise, the preventive behaviours greatly depend on the perception and knowledge of covid-19. This is in conformity with the assertion of Zarim 2020 that the knowledge of the disease

among nursing workers influences the preventive behaviours towards the disease. He stressed that more awareness should be carried out to bring all nursing students to conformity with the global acceptable behaviour in order to rip the spread of covid-19 in the bud.

5. Discussion of findings

Findings from table 2 revealed that majority of nursing had good perception on covid-19. They believed that covid-19 can affect all people who are exposed to the virus irrespective of their ages whether young or old. This finding corroborate the findings of the study conducted by Marcinko et al 2020 that nearly all nursing are aware of the covid-19 and even know someone with suspected and confirmed covid-19 infection. They see covid-19 vaccines as not as dangerous the virus itself. The study findings also contradict the findings of Shi et al 2020 in China. The authors found that most nursing students are not knowledgeable that being in contact with infected animal or person can transmit the virus. Findings of the study also correspond with the study by Lin 2020 to determine the perception of health workers towards covid-19. It was found that health worker's

perception towards covid-19 has been position and they are at the frontier to the fight of covid-19.

The result presented in table 3, indicated that most respondents had good knowledge about covid-19 such as covid-19 is a communicable respiratory tract infection caused by coronavirus, it is pandemic infection, covid-19 can be transmitted in a crowded or social environment, it is a droplet infection. This finding is consonance with the result of the study in China National Hospital by Wang et al 2020 that health workers including nursing students are knowledgeable of infectious disease including covid-19. This is the reason that government is using them to create awareness, educate the masses on routes infection. Health workers especially medical and nursing students are involve in awareness creation and immunization exercises. Findings are also in support of the findings of the study by Leung et al, 2020 who opined that medical personnel including nursing students are vested with the knowledge of pathogens and emerging and re-emerging conditions such as covid-19, Lassa fever, Ebola and monkey pock. Contrary to other studies, Kavita et al 2020 in the study to determine the knowledge of nursing students towards infections disease suggested that nursing students do not have adequate knowledge of the pathogen city of most of the organism and advocate comprehensive curriculum design to cover most of the area nursing students are left behind.

The result presented in table 4 showed that most of the respondents were aware of the preventive behaviour to curb the spread of covid-19 such maintaining social distancing, washing of hands with running water,

wearing of face mask and face shield, the use of hand sanitizer and vaccination against covid-19 virus. Their behaviour is in line with the result of the study conducted in China by Stratton 2020 to unravel the perception behaviours among nursing health workers. The authors documented that most of the nursing coupled with the school administration adopted the use of face mask as a way of preventing the spread of covid-19 virus in almost all the big cities in China. This finding corroborate the findings of the study of Stutt et al 2020 who found that almost all the health institutions in China have adopted stay at home policy of government and ensure social distancing and maintained. In congruent to the findings is a study by Gong 2020 who discovered that majority of nursing worker has adopted positive behaviour towards covid-19. Most of them goes to clinical place with their face mask a=on and they always maintain hand hygiene by ensuring regular hand washing with running water and the use of hand sanitizer. Again findings correspond with the finding of the study by Zarin 2020 to determine the number of medical staff including nursing students that had vaccination against covid-19. It was found that the turnout of nursing/medical students that received covid-19 vaccination are encouraging in China. The author further enlightens that about majority of medical students have been vaccinated against covid-19. He then advocated that for total compliance of medical staff to ensure safety, since they are at the forefront in the fight against covid-19.

6. Implication of the study to nursing

Nurses have important role to play in the fight against the spread of covid-19. Some of the

role nurses played include the following: Health education, Public sensitization on covid-19, Treatment of confirmed cases, Case finding, Assessment of patient psychological and mental state, Participated in contact tracing, Barrier nursing, Vaccination of people with covid-19 vaccine. To be able to do these, nurses have to developed positive preventive behaviours and serve as role model in the society. Another area nursing is needed is that most covid-19 died for fear of the prognosis of the disease. Nurses are needed to provide counseling and psychotherapy so as to make the patient accept whatever form of treatment that would prescribe.

7 Conclusion

In conclusion, the significant of the hypothesis well rested using Chi-square statistics at <.05 level of significance. From the findings majority of the respondents had good knowledge on covid-19. Most participants were of the opinion that preventive behaviour such as avoidance of crowded social environment, wearing of face mask and vaccination against covid-19 can help prevent the spread of covid-19. A good number of health worker had good perception towards covid-19. Finally, the finding of this study revealed that there is a significant relationship between perception, knowledge and preventive behaving of nursing towards covid-19 in cross river state.

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*Figure 2 summary of knowledge of covid 19
among Nursing.*

Note ; *Figure 1 summary of perception of
covid 19 among Nursing*