Research Article

Awareness of Covid-19 and Government Involvement in School Healthcare Promotion in Demonstration Elementary and Secondary Schools

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Abstract

Introduction: COVID-19 has disrupted activities in all segment of our immediate and distant society in recent times. **Objective:** This article sought to ascertain the awareness of COVID-19 and government`s involvement in school healthcare promotion in Demonstration elementary and secondary schools. **Method:** A descriptive survey research design utilizes stratified random sampling technique with 257 as sample size. A self-developed questionnaire was designed to obtain data from respondents and analysis of data was done using frequency distribution tables and bar charts. **Findings:** Findings indicate that, students within the age range of 13-25, teachers, 26-37 and staff within 23-49 responded; sex distribution was male-57.20% and female 42.80%. 58.37% said yes to whether or not they were aware of Covid-19 pandemic, 18.29 undecided and 23.34 said no. Some respondents further mentioned the means through which they became aware of the virus. Again, responses on whether or not as a result of Covid-19 pandemic government was involved in promoting healthcare services indicate that, 70.04% said yes, 10.51% undecided and 19.46% no, in which 22.96% further affirmed that government encourages the use of face masks/shield, 55.25% stated the use of hand sanitizer, 37 14.40% social distancing and 7.39% equally promotes healthcare services and 19 7.39% self-isolation are measures. However, 27, which is 10.51% were undecided and 23, 24% said no that Covid-19 was not what pre-empt government to promote healthcare services in schools. Responses were elicited from targeted population with respect to the questions put forwarded. **Conclusion:** A good number of the respondents are aware and indeed government has been involved in promoting healthcare in the school to an extent, though not overtly. **Recommendations:** all stakeholders should be adequately informed through any possible available means of the reality of Covid-19. In addition, leaders at all levels should make deliberate effort to be involved in school healthcare promotion.

Introduction

According to Human Rights Watch and Wankasi, et al. [1], Covid-19 pandemic has plunged the world into crisis by touching all sectors of society to a point that needs unequivocal attention. In a desperate attempt to contain the spread of the disease, governments across the world have taken unprecedented measures to close both private and public institutions including elementary/secondary schools and other non-system relevant settings and where people usually meet, interact and spend time on regular basis. Thus, this article focuses on ascertaining the awareness of Covid-19 by staff, students and teachers as well as government`s involvement in school healthcare promotion activities in the elementary, secondary schools under review.

Background of the Study

Awareness is the state of one having certain level of consciousness in an issue that benefits the recipient. World Health Organization [2] was quoted in Radhika, et al. [3] quantitative cohort-study design article tagged "level of awareness of Dengue disease in 10 schools, 2,194 sample size within 13-15 years old and effect of school-based health education programmes on improving knowledge and to ensure effective preventive practices in Sri-Lanka" in which the authors evaluated the level of school children`s awareness measures between 2015-2016. Radhika et al. [3] affirmed that, lack of awareness was one huge source of rapid spread of the dengue disease among school children, simply because, there was limited attention and trajectory receptivity. The instrument utilized was a self-structured questionnaire for a pre-and post-assessment tests using Linear Model (GLM) and chi-square tests of independence to investigate the variations in knowledge levels. The findings indicate "good" "moderate" and "excellent" levels as presented (46.31%, n= 1016); (42.62%, n= 935), 2.92% (n= 64), (>80%) erstwhile to the two (2) hours pre-test awareness programme. Regardless of the existing little knowledge, it was revealed students needed more knowledge of symptoms and preventive measures. The authors [3] claim was that, after the 2 hours programme, there was a significant increase in awareness to (41.84%, n=918) which indicates 38.92% in consonance with the chi-square test ($p<0.05$ at 95% level of confidence. It means the basic areas of students` need were identified during the pre-test, thereby the awareness programme the students were taught was focused judging the significant improvement of knowledge after the programme. Based on this finding, the authors recommended the need to raise awareness of either limited or hitherto no knowledge to improve practice. Below is a chart that supported the authors` claim.
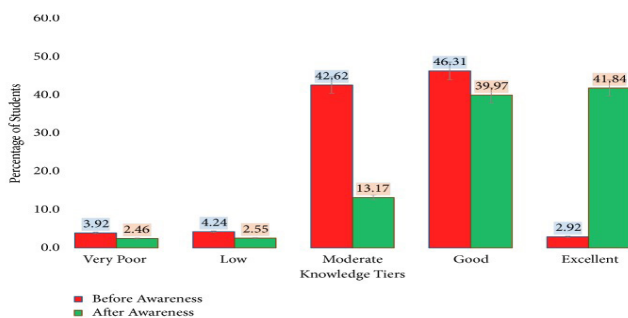
Figure 1: Cumulative knowledge of students about dengue prior to and after the awareness programme. Source: Radhika, et al. [3].

Although, the study was conducted in Sri-Lanka, the respondents were majorly secondary school students and the focus was on ascertaining level of awareness, this present study which has a similar undertone must be conducted not only to ascertain awareness, but also to ascertain government`s involvement,

in order to detect what the government has done to protect the students, teachers and other staff of the school community in the wake of Covid-19. Not only that, the targeted respondents in this study involving all category of persons in school setting provides opportunities for more respondents in wider perspective. Seland [4] proposed in the study entitled "*assessing the quality situation: the importance of knowing your surroundings*" that awareness brings about identifying potential threats, dangerous situations and enhances informed decision making with regards to Covid-19 pandemic and prevention.

In support of this assertion, another cross sectional survey was conducted by Shehata, et al. [5] on "Egyptian school children`s awareness and precautions in Covid-19 pandemic" states that, COVID-19 is showing a wide global spread, and urgent joint international efforts is required on the awareness of people to limit the widespread of the pandemic. Again, the aim of this study was also to assess the level of awareness and attitude towards COVID-19 among a sample of Egyptian school children. Instrument was a web-based questionnaire administered in 15 days, 1st -15th July, 2020. The study recruited the age between 6-18 years, who agreed to respond in the study. The survey was conducted in Arabic languages, was completed within 15 minutes by the student or assisted by parents for those under 16 years. The questionnaire was designed in accordance with previously published literature, was pre-tested for validation designed to elicit data via online including, demographic information, and data measuring students' awareness and attitude towards COVID 19. The questionnaire consisted of 3 main domains; the first domain focuses on sociodemographic information, second domain was on students' level of knowledge about the disease (30 items) with 3 subdomains (risk factors, clinical presentation and prevention precautions) each of them consisted of 10 items. Whereas, the third domain was about students' practice and consisted of 10 items. The possible responses were "agree", "disagree" and "don't know". Approval for the study was obtained from The Medical Research Ethical Committee of the National Research Center (NRC) (Registration no. 20-095). All the participants provided online written informed consent to participate in the study. Statistical analysis went thus: after the collected data was coded and tabulated, IBM SPSS statistics (Statistical Package for Social Sciences) software version 22.0, IBM Corp., Chicago, USA, 2013 and Microsoft Office Excel 2007 were adopted to analyse the data. The answers of respondents in each section were evaluated for being correct or false, hence the authors calculated the scores of each domain by counting the number of correctly answered question, then the number divided by overall number of questions then multiplying by 100 to get the percentage of correctly answered questions (scores). Descriptive statistics was done for quantitative data as mean±SD (Standard Deviation) for quantitative data, while it was done for qualitative data as number and percentage. Inferential analyses were done for

quantitative variables using independent t-test. In qualitative data, inferential analyses were done using Chi square test and Fisher's exact test for variables with small expected numbers. The level of significance was taken at P value < 0.050 is significant, otherwise is non-significant. Results of the study was conducted on 708 students represent different areas in Egypt 378 male (53.4%), 330 females (46.5%); their age ranged between 6 and 18 years. 342 (48.3%) of them in primary school and 147 (20.8%) in preparatory school, 219 (30.9) in secondary school. Their school types have different categories Governmental (250 Student, 35.3%), Experimental (294 Student, 41.5%), private (60 Student, 8.5%), international (104 Student, 14.7%). Among the studied 708 cases, 576 (81.4%) were from urban areas, the remaining 132 (18.6%) were from non-urban areas. All participants claimed that they had heard about COVID-19 except 2 students 0.3%. Regarding sources of information about COVID-19, Internet, media and medical staff were more frequent in urban students but the differences were significant only in internet sources, while family and friends were non-significantly more frequent in non-urban students. In conclusions, most of the respondents- the students were knowledgeable of basic information, and have cautious preventive practices towards COVID-19, denoting the efficacy of the public health efforts. The findings revealed lower level of awareness in non-urban areas, indicating a need to intensify the awareness program and address alternative channels to communicate with these populations. School Children especially in rural areas need suitable means to deliver information, it can be represented in the form of children friendly booklets, boosters, role modelling plays, demonstrative cartoon movies, and other routes preferred to children, so that they are improving awareness of data regarding COVID-19 to overcome gap of Knowledge.

Coronavirus Disease became an issue of public health importance in 2019, which gladiators nick-named COVID-19. Ever since its re-emergence, there has been an unprecedented increase in global perspective. World Health Organization (WHO) defines COVID-19 as an infectious disease caused by the SARS-CoV-2 virus, whose origin has been traced currently to Wuhan laboratory in Asia, China precisely.

Anecdotal and empirical sources [1,6] confirmed that, the virus spreads from an infected person's mouth or nose in small liquid particles when the infected person coughs, sneezes and speaks as well as sings or breathes. These particles range from larger respiratory droplets to smaller atomizers. Infected person manifests mild to moderate respiratory illness and recovers unnoticed or will be full-blown to require medical attention, particularly those with underlying health conditions. Covid-19 affects all persons, regardless of age, sex, color or creed.

In Nigeria, the present figures as at the last quarter of the year, December, 2021, 1547 new confirmed cases and 8 deaths were recorded in Nigeria from 10 States excluding Bayelsa State. The states in question are: - FCT (806), Lagos (401), Borno (166), Oyo (78), Ogun (47), Osun (30), Ekiti (7), Katsina (7), Kano (4) and Jigawa (1). This brings the total figure to 237561 confirmed cases, 212550 cases have been discharged and 3022 deaths recorded in 36 states and the Federal Capital Territory as at the time of this study. The latest break down from the Nigeria Centre for Disease Control [7] update brings the number of infectivity by each state, however, this study focuses on Bayelsa State, as a result, an excerpt from NCDC [7] confirmed cases relate to Bayelsa State are presented below:

No. of Cases (Lab Confirmed)	No. of Cases (on admission)	No. Discharged	No. of Deaths
1,290	36	1,226	28

Although, this figure does not exclude children, judging that, studies suggest children are at lower risk of contracting the disease compared to adults, so far, children with asthma, obesity and diabetes under the age of 18 years which represents about 8.5% of cases (both critical and non-critical cases) with relatively few deaths in some places are reported. It is believed that, further studies are underway to assess the risk of infection in children and to better understand transmission in this age group according to WHO [8].

While, the studies are underway, WHO [8] recommends several requirements that should be put in place which are capable of preventing the introduction and spread of Covid-19 in its question and answer sheet in schools to ensure the safety of children and school staff while at school. According to WHO the requirements are well organized for early childhood development, advanced learning institutions and residential schools or designated institutions. The twelve (12) preventive measures WHO recommended are presented *verbatim* in the excerpt below:

"**Community-level Measures:** at the community level, appropriate measures needed include, screening, early detection, isolation and contact tracing. Not only that, it requires the use of hand sanitizers/regular hand washing hygiene practices, age-appropriate face mask/shield to all persons and vulnerable groups and physical distancing as well as scrutinize clusters. Again, WHO recommends Community-led initiatives such as debunk all forms of misinformation aimed at truncating the preventive efforts [8].

Policy, Practice and Infrastructure: Ensure the necessary resources, policies and infrastructure, are in place that protect the health and safety of all school personnel, including people at higher risk [8].

Behavioural Aspects: Consider the age and capacity of students to understand and respect measures put in place. Younger children may find it more difficult to adhere to physical distancing or the appropriate use of masks [8].

Safety and Security: School closure or re-opening may affect the safety and security of students and the most vulnerable children may require special attention, such as during pick-up and drop-off [8].

Hygiene and Daily Practices at the School and Classroom Level: Physical distancing of at least 1 metre between individuals including spacing of desks, frequent hand and respiratory hygiene, age-appropriate mask use, ventilation and environmental cleaning measures should be in place to limit exposure. Schools should educate staff and students on COVID-19 prevention measures, develop a schedule for daily cleaning and disinfection of the school environment, facilities and frequently touches surfaces, and ensure availability of hand hygiene facilities and national/local guidance on the use of masks [8].

Screening and Care of Sick Students, Teachers and other School Staff: Schools should enforce the policy of "staying home if unwell", waive the requirement for a doctor's note, create a checklist for parents/students/staff to decide whether to go to school (taking into consideration the local situation), ensure students who have been in contact with a COVID-19 case stay home for 14 days, and consider options for screening on arrival [9].

Protection of Individuals at High-Risk: Schools should identify students and teachers at high-risk with pre-existing medical conditions to come up with strategies to keep them safe; maintain physical distancing and se of medical masks as well as frequent hand hygiene and respiratory etiquette [8].

Communication with Parents and Students: Schools should keep students and parents informed about the measures being implemented to ensure their collaboration and support. Additional school-related measures such as immunization checks and catch-up vaccination programmes: Ensure continuity or expansion of essential services, including school feeding and mental health and psychosocial support [8].

Physical Distancing Outside Classrooms: Maintain a distance of at least 1 metre for both students (all age groups) and staff, where feasible [8].

Physical Distancing inside Classrooms: In areas with **Community Transmission** of COVID-19, maintain a distance of at least 1 metre between all individuals of all age groups, for any schools remaining open. This includes increasing desk spacing and staging recesses, breaks and lunchbreaks; limiting the mixing of classes and of age groups; considering smaller classes or alternating attendance schedules, and ensuring good ventilation in classrooms. In areas with cluster-transmission of COVID-19, a risk-based approach should be taken when deciding whether to keep a distance of at least 1 metre between students. Staff should always keep at least 1 metre apart from each other and from students and should wear a mask in situations where 1-metre distance is not practical [8].

In areas with **sporadic cases/no cases** of COVID-19, children under the age of 12 should not be required to keep physical distance at all times. Where feasible, children aged 12 and over should keep at least 1 metre apart from each other. Staff should always keep at least 1 metre from each other and from students and should wear a mask in situations where 1-metre distance is not practical [8].

Remote Learning: Where children cannot attend classes in person, support should be given to ensure students have continued access to educational materials and technologies (internet, texting radio, radio, or television), (e.g. delivering assignments or broadcasting lessons). Shutting down educational facilities should only be considered when no alternatives are available" [10].

Miriam online-dictionary defines government as the exercise of political authority over the actions, affairs, etcetera of a political unit and the performance of certain functions for the unit in question. As part of its oversite function, government`s fundamental roles are to put structures in place that would protect its citizenry/assets from harm, control the economy, ensure effective management of resources aimed at providing services for citizen`s welfare and set guidelines on accepted daily conduct and behaviour. Therefore, whether or not, governments at all level (federal, state and local government levels) should without cohesion be involved mostly in the fight against Covid-19 at all levels of our educational institutions, with particular attention to the elementary and secondary schools. Whereas, involvement is defined as participation in effective decision making, which includes, sharing information, feelings and signs as well as accepting health team instructions to reduce Covid-19 or ameliorate the impact of Covid-19 in the school community by the government in this context [11].

In this instance, an anecdotal source proposed areas expected the government to be involved in the reduction of Covid-19 in school environment in the following ways. Governments are expected to purchase and provide health care services and ensure access to quality care for vulnerable populations (school children). Lastly, government should regulate health care markets and should support acquisition of new knowledge, through capacity building.

On the contrary, the International Monetary Fund (IMF) [12]"Level Policy Responses to Covid-19 (2021) countries` tracker summary" responded that governments have taken steps to limit the human and economic impact of the Covid-19 pandemic through approaches to contain the spread of the virus, such as closure of public and private schools among others [12,13] of which the schools under review were not excluded, Nigeria`s planned to vaccinate 40% of its population in 2021, 30% in 2022 and requested 41mn vaccines from African Union as well as expects16 mn doses under WHO-backed COVAX program, all in a bid to contain the virus. In addition, Nigeria received 3.92 million doses of AstraZeneca vaccines and still expecting 3.92 million doses of Astra Zeneca vaccines according to IMF [12].

Besides these, the IMF also states that, the government has been involved in fiscal means through a revised budget for 2020 in response to the Covid-19. Notable component of the budget is a N500 billion (0.3 percent of GDP) Covid-19 intervention fund to re-direct resources and expand currency re-allocation program as well as import duty waivers for pharmaceutical firms whose services are in dare need. Not only that, an extra budget for 2021 (N896 billion) of which N37.9 billion was earmarked for Covid-19 vaccines on a general note was conceded to Senate to deliberate at the second quarter. Seemingly, government involvement is significant, however, no tangible fund was *earmarked or activity set aside overtly for Covid-19 prevention in nursery, elementary and secondary schools per se*. Therefore, it is essential that this study should be conducted to ascertain government`s involvement in healthcare promotion in the midst of Covid-19 in the schools under review.

Furthermore, prior to the index case on the 27 February, 2020, there has been capacity building in epidemic preparedness and the Nigerian Centre for Disease Control (NCDC) had set up 23 public health emergency operations, and four testing centres sparsely distributed in the country with the North lacking a testing facility. As of 30 March, 2020, Nigeria had only 350 Intensive Care Unit (ICU) beds to serve her over 200 million populations as estimated by the Nigeria Centre for Disease Control, that is, one in every 570 000 people would have access to critical treatment, using medical practice for the whole population [14].

Viewing from WHO [15] perspective and relating to this study, health promotion is defined as the process of enabling school children and all category of school staff to increase control of their lives aimed at improving their health. Health promotion moves beyond a focus on individual student and staff behaviour towards a wide range of social and environmental interventions designed to benefit and protect individual students/staff`s health/ quality of life by addressing and preventing the root causes of ill health in school, rather than treatment and cure. To achieve these, WHO [15] requires policy makers across all government departments to make health a central line of government policy, giving, each child has his/her own unique health issues. This means, health promotion decisions and policies that prevent members of school community from becoming ill and protect them from injuries are to be governments` clear priority.

In addition, students/staff need to acquire the knowledge, skills and information to make healthy choices. For example, about the food students/staff eat and healthcare services that students/staff need to protect themselves while at school. Not only that, students/staff also need to have opportunities to make positive choices and be assured of an environment in which staff/students can demand further policy actions to further improve their health. Furthermore, cities have a key role to play in promoting good health of students, teachers and staff. For instance, strong leadership and commitment at the municipal level is essential to healthy urban planning in and to build up preventive measures in communities, primary health care facilities and schools. Reasons being that, from healthy schools evolve healthy cities, countries and ultimately a healthier world devoid of Covid-19.

In the United Kingdom, school health promotion activities that are in place include: promoting child and family nutrition, Sexually Transmitted Diseases (STD`s) prevention and education; injury prevention, promoting physical activity; smoking cessation programs such as 'quit' activities and 'brief interventions.

In another context, health promotion programmes which are schools appropriate adopted at the first international conference on health promotion in Ottawa and evolved at subsequent conferences is presented by Sanjiv and Preetha [16] as a three winged circled emblem which comprises five key themes in health promotion (build healthy public (school) policy, create supportive environments for health, strengthen community action for health, develop personal skills and reorient health services) and three basic health promotion stratagems (to enable, mediate and advocate) are highlighted in the emblem demonstrated below:
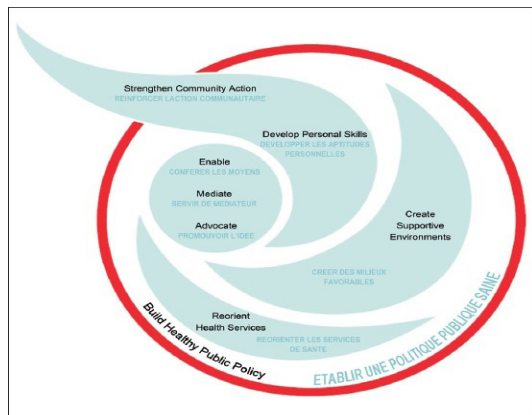
Figure 2: Health Promotion Emblem [16].

Sanjiv and Preetha [16] also state that, school children`s mental health promotion needs not be trivialized as school children commit suicide at the slightest mental health issue, which made it the primary cause of death among young people in the UK. Consequent upon that, it is crucial to create supportive environments for health that would promote health in schools, with particular attention paid to promoting mental health. Not only that, Sanjiv and Preetha [16] accented that promoting mental health in schools is not just anticipated - it is fundamental to promote school students` health and mental general well-being. The statistics below re-affirms the assertion of [17,18] and quoted by Kessler, et al. on the need to promote mental health in school.

In Europe, precisely the UK, a good number (75%) of mental health issues manifest between age 14-24, which is huge. 1 in 4 students experience(s) a mental health issue at some point in their life and 1 in 10 school children have a diagnosable mental health condition. Moreover, 75% of mentally ill-students are not receiving any form of attention or treatment and the issue persistently places huge financial burden on the UK government (over £100 billion) on annual bases [18].

Furthermore, in terms of causing disability, mental health is a bigger problem than chronic illnesses such as cancer and cardiovascular disease among school children. Thus, there is dare need to promote student`s health in designated time, at least half hourly daily for socialization, away from routine academic activities individually or through social interaction with one another. Other ways to promote school children`s health and well-being are to adopt an open-door policy, create programmes such as periodic, perhaps health education activities aimed at improving access to better information and services play a vital role in giving people more control over their health and well-being. Thereby, contributing immensely to global fight to reduce the scourge, through provision of health services, physical education and counselling. Still others are; psychological services, nutrition and food programs. Further ways are through a healthful and supportive school environment, work-site health promotion for school faculty and staff as some acts that can promote health of school community [19-21].

In addition to these measures, other ways of promoting health include: improving preventing behaviour [21,22] capacity building of institutions and community [19,23] and passing adequate/proper health promotion information [24,26]. All these would be easy if misinformation is significantly reduced to a very low ebb, thereby, promoting health in school environment aimed at preventing COVID-19 [27-29].

Kuhlmann, Stefan and Cheltehnham [30] describe school as a Greek word- σχολή (scholē) meaning "leisure", whereas, school is defined as an environment designed in such a way that learner, teacher and other staff interact for the purposes of imparting and acquiring knowledge, either on compulsory basis or optional. Most countries have systems of formal education, which is sometimes compulsory [31]. In these systems, students' progress through a series of varying names, such as elementary, primary etc. schools. Here in Nigeria, it is often referred to either primary or elementary. Same thing applies to the secondary. It is often referring to grammar school, model school, comprehensive school and the likes, in line with the philosophy behind the establishment of the school.

Schools are situated in communities in supposedly safe and supportive learning environments for students, employed teachers and other staff to work. Nevertheless, many school programmes are interrupted due to school closures, virtual and hybrid learning on account of Covid-19 pandemic in recent times, which exerts direct impact on particularly the unreached hundreds of millions of children at all levels of children`s education according to [32]. To further corroborate this fact, as at 12 January, 2021, approximately 825 million in precisely 23 countries, learners were currently affected due to nation-wide school closures, whereas, 40 were implementing local closures, impacting about 47 percent of the world's student population [33-35]. However, evidence suggests that many K-12 schools that have strictly implemented prevention strategies have been able to safely open for in-person instruction and remain open.

The awareness of the disease as well as government`s involvement in school health care promotion could support the related attitude and practice amongst school administrators, teachers, and students of Demonstration elementary and Secondary Schools affiliated to Isaac Jasper Boro College of Education Ekeki, Yenagoa Local Government Area of Bayelsa State' could determine the extent of control. It is therefore crucial that, students, teachers and other staff are engaged in the study.

The problem is, globally, till date, the spread of COVID-19 is on the increase with less hope of overcoming it in the next few months or years, as new cases with different nomenclatures (Delta variant; Omicron and the likes) emerge due to clear cases of virus metamorphosis. The danger associated is, the metamorphosis could pose problem of drug to use for treatment and the vaccination.

Empirical evidence shows that, from its re-emergence up till January, 2022, over 5.2 million new cases are reported, death toll has surpassed 3 million lives and the pace of deaths still accelerates in geometrical progression. For instance, it took the virus nine months to reach 1 million deaths, another four months to surpass 2 million, and just three additional weeks to reach 3 million deaths. Covid-19 cases reported weekly by WHO Region, and global deaths including healthcare professionals Fernandez, et al [36] as at the first quarter of 2021 was terrific.

All category of persons and regions except the European and Western Pacific regions reported an increase in the number of weekly deaths. The countries reporting the highest number of new cases represent three of the six WHO regions: India (1 429 304 new cases; 64% increase), the United States of America (477 778 new cases; 2% increase), Brazil (459 281 new cases; 1% decrease), Turkey (414 312 new cases; 17% increase), and France (233 275 new cases; 12% decrease). These figures provided evidence of extent to which Covid-19 affected all region.

Earlier on, [37,38] predicted that, over 1 billion children would be at risk of falling behind due to school closures aimed at containing the rapid spread of Covid-19 [37], hence, to keep the world's children learning, countries have been implementing remote education programmes. As part of the many problems caused by Covid-19, many of the world's children – particularly those in poorer households – have not had access to quality education, with marked educational inequalities. Nation-wide lockdown as a result of Covid-19 has prompted public and private healthcare systems to prepare for increased activities.

Africa has so far been largely spared the kind of impact that has caused chaos in developed nations like the United States, Spain and Italy. As of April 28, 2021 there were about 34 915 confirmed cases on the African continent. However, this number is expected to keep climbing as Africa is deemed to be experiencing its early stages of the pandemic with her 1.33 billion people at tremendous risk. Being a low-income country in sub-Saharan Africa, Nigeria's approach to mitigating the impact of the pandemic is of global interest. With a 2020 budget of 10.59 trillion naira and 24.9% of revenues for this budget coming from oil sources and to further expound on the munificent gestures vested on the Nigerian health care, the sector enjoys only 4.14% of the 2020 national budget from Oyadiran, Agaga, Adebisi, and Lucero-Prisno III, (2020) findings [39].

There is paucity of medical professionals secondary to unremitting brain drain occasioned by lack of remuneration and Covid-19. The NMA president said about 75 000 Nigerian doctors were registered with the body, but over 33 000 had left the country, leaving behind only about 42 000 to man all health institutions in the country. The president also noted that, "in rural areas, we have one doctor to 22 000 people, while in towns and cities, we have one doctor to 10 000 Nigerians or one doctor to 12 000 Nigerians, while the World Health Organization (WHO) said for any country to have a balanced ratio, it must have one doctor to 600 persons". Considering this global trend of the infection with no glimpse of reduction at the near future and if this trend continuous, even schools which is the pillar of any country will be affected due to inequality and poor educational output. Not only that, due to insecurity, poverty, with little or no accessible healthcare facilities in schools, if swift control measures are not taking, the spread will affect schools to the detriment of any nation poised to care for its citizens.

Demonstration elementary and secondary schools in Isaac Jasper Boro College of Education Ekeki, Yenagoa Local Government Area of Bayelsa State' are institutions of learning for children between the ages of 2 to 17, capturing the pre-elementary, elementary and the secondary schools, alongside the teachers and other workers in the same environment [40]. The health status of these pupils and staff becomes very important to cater for, especially in the wake of Covid-19 disease.

Seemingly, there are no identifiable studies on this subject from the institution under review, hence, there is need to conduct this study with stakeholders to ascertain whether or not students, staff and teachers are aware of Covid19 disease and if government`s involvement in the wake of Covid-19 to promote the health and well-being of all category of persons in the school has anyway promoted health.

The objectives of this study are very specific: to describe the awareness of Covid-19 by students, teachers with other staff and to ascertain whether or not government was involved, that is, has the government made some specific effort to promote the health of staff and students of Demonstration elementary and Secondary Schools, Isaac Jasper Boro College of Education Ekeki, Yenagoa Local Government Area of Bayelsa State.

Methodology

The design for this study is quantitative, using descriptive approach which helps to unveil whether or not there is awareness and whether or not government has been involved in healthcare promotion in the wake of Covid 19 in the Demonstration elementary and secondary schools, in Isaac Jasper Boro College of Education, Ekeki, Yenagoa, Bayelsa State.

Target Population, Sampling Technique and Size

The target population consists of students, academics and non-academics staffs from the various study areas are presented in the table below.

Components of school	Total number of people	Sample size ratio multiply by group total	Sample size from each group
Students & Pupils	650	650x0.3569	232
Teaching staff	42	42x0.3569	15
Non-teaching staff	28	28x0.3569	10
Total	720		257

Table 1: Distribution of target population.

Since the target population is huge (720), Taro Yamane's sample size calculation model was adopted to arrive at sample size below.

Taro Yamane's $n=N/(1+Ne^2)$

Where n is the sample size

N is the finite population

e is the sampling error

Substituting the values into above, $n=720/(1+720x〚0.05〛^2)=720/(1+1.8)=720/(2.8)=257$

Therefore, the sample size (n) is 275. Stratified and simple random sampling were used in the selection of respondents from each of the three categories in the school community. That is, students, teaching staff and non-teaching staff to avoid being bias. The respondents were sampled thus:

With sample size 257

Therefore, equivalent sample size ratio for each group is 257/720 =0.3569.

The criteria for inclusion was that, respondents must be a student irrespective of their classes, teaching staff irrespective of their positions and non-teaching staff irrespective of their positions as well as willingness to respond by the category stated above.

Instrument for Data Collection

Well-structured two sectioned (A&B) questionnaire in consonance with the study objectives was utilized in gathering data. Section A is the demographic data of the respondents, whereas, section B answers the questions aimed at achieving the set objective and was presented in closed ended form to give the respondents the opportunity to choose from the options provided.

Validation of the Instrument

The face and contents validity of the instrument was ascertained by sending it to other lecturer in the field of study to ensure corrections are made and were affected by the researcher where necessary to prevent ambiguity of the instrument.

Reliability of the Instrument

A test-retest pilot study was carried out on 10 percent of the target population from the sample size to evaluate the clarity and applicability of the tool and were excluded from the main study. The interval between the two tests was one and half months, result of the

reliability coefficient determined using Pearson Product Moment Correlation is 0.911 that indicates a positive correlation of strong strength between both tests.

Procedure for Data Collection

Consent forms were issued to staff, teachers and those students above 16years not under cohesion, but was out of their own volition-that is, respondent's demonstrated willingness to respond after explanation of the purpose of study. Whereas, the teachers who were seen as guardians to the pupils permitted researchers and group consent for the pupils were obtained [41,42]. Thereafter, 257 copies of the questionnaire were printed and administered by the researcher. Out of this figure, all were retrieved, there were neither invalid, nor missing questionnaires. Data was obtained from some teachers and students during recess, whereas, for the non-teaching staff, data was obtained in their offices at different times within 10-working days. It was up to 10 days because, not all teachers were present at same time, and students were taken one class at a time to be effective.

Method of Data Analysis

The obtained data was analysed using 'mini-tab 17' a statistical computing language to obtain percentages through tables and bar charts. The analysis was done based on the two sections of the research instrument and in accordance with the research objectives.

Ethical Considerations

An introductory letter was obtained from the Ag Dean, Faculty of Nursing Sciences, Niger Delta University was presented for the conduct of the study with assurance of no harm that would befall respondents. In addition, respondents were made to understand that participation is voluntary and they are at liberty to decline answering any answer at any time was guaranteed. All information provided were obtained in privacy and with confidentiality, with the questionnaire marked A1, A2, A3, for students, B1, B2, B3 for teacher and C1, C2, etc for other staff.

Findings

Age	Number of Observations	Percentage (%)
14 – 16	41	17.67
17 – 19	68	29.31
20 – 22	72	31.04
23 – 25	51	21.98
Total	232	100

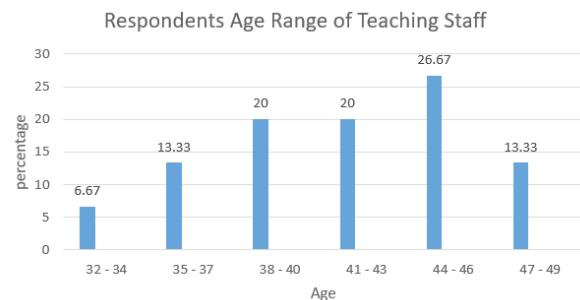**Table 2:** Respondents Age Range Distribution of the Students.
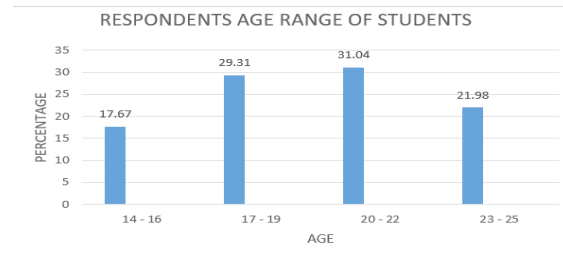
Figure 3: Percentage Bar Chart Respondents Age of Students.

From Table 2 the age distribution of student respondents shows that, out of 232 students that responded in the study, 41 (17.67%) were within the ages of 14-16 years; 68 (29.31%) were within the ages of 17-19 years; 72 (31.04%) were within the ages of 20-22 years and 51 (21.98%) were within the ages of 23-25 years. This means that minority and majority of the respondents were between ages 14-16 years and 20-22 years respectively. Perhaps, those in higher classes were more willing and understood the concept more.

Age	Number of Observations	Percentage (%)
32 – 34	1	6.67
35 – 37	2	13.33
38 – 40	3	20.00
41 – 43	3	20.00
44 – 46	4	26.67
47 – 49	2	13.33
Total	15	100

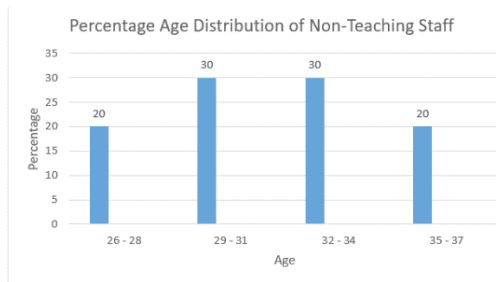**Table 3:** Respondent Age Range Distribution of Teaching Staff.

Figure 4: Percentage Bar Chart of Respondents Age of Teaching Staff.

From Table 3 the age distribution of teaching staff respondents shows that out of 15 teaching staff that participated in the study, 1 (6.67%) was within the ages of 32-34 years; 2 (13.33%) were within the ages of 35-37 years; 3 (20,00%) were within the ages

of 38-40 years; 3 (20.00%) were within the ages of 41-43 years; 4 (26.67%) were within the ages of 44-46 years and 2 (13.33%) were within the ages of 47-49 years. This means that minority and majority of the respondents were between ages 32-34 years and 44-46 years respectively. As was in the case of the students, the older the teaching staff, the level of respondents' participation. Perhaps, experience and understanding were contributory factors.

Age	Number of Observations	Percentage (%)
26-28	2	20
29-31	3	30
32-34	3	30
35-37	2	20
Total	10	100

Table 4: Respondent Age Range Distribution of Non-Teaching Staff.
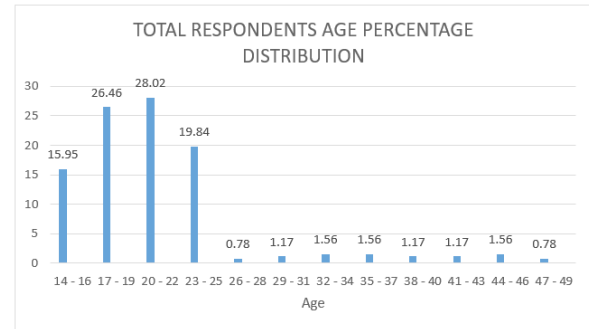

Figure 5: Percentage Bar Chart of Respondents Age of Non-Teaching Staff.

From Table 4 the age distribution of non-teaching staff respondents shows that out of 10 non-teaching staff that participated in the study, 2 (20.00%) were within the ages of 26-28 years; 3 (30.00%) were within the ages of 29-31 years; 3 (30.00%) were within the ages of 32-34 years and 2 (20.00%) were within the ages of 35-37 years. This means that minority and majority of the respondents were between ages (26-28 and 35-37) years and (29-34) years respectively.

Age	Frequency	Percentage
14 – 16	41	15.95
17 – 19	68	26.46
20 – 22	72	28.02
23 – 25	51	19.84
26 – 28	2	0.78
29 – 31	3	1.17
32 – 34	4	1.56
35 – 37	4	1.56
38 – 40	3	1.17
41 – 43	3	1.17
44 – 46	4	1.56

47 – 49	2	0.78
Total	257	100

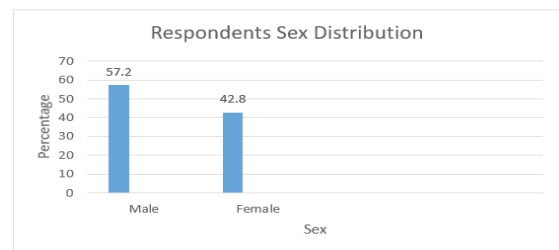**Table 5:** Total Respondents Age Range Distribution.

Figure 6: Percentage Bar Chart of Age Distribution of All Respondents.

From Table 5 the total age distribution of all respondents shows that out of 257 respondents that participated in the study, 41 (15.95%) were within the ages of 14-16 years; 68 (26.46%) were within the ages of 17-19 years; 72 (28.02%) were within the ages of 20-22 years; 51 (19.84%) are within the ages of 23-25 years; 2 (0.78%) were within the ages of 26-28 years; 3 (1.17%) were within the ages of 29-31 years; 4 (1.56%) were within the ages of 32-34 years; 4 (1.56%) were within the ages of 35-37 years; 3 (1.17%) were within the ages of 38-40 years; 3 (1.17%) were within the ages of 41-43 years; 4 (1.56%) were within the ages of 44-46 years and 2 (0.78%) were within the ages of 47-49 years. This means that minority and majority of the respondents were between ages (26-28 and 47-49) years and 20-22 years respectively.

| Sex	Number of observations	Percentage
Male	147	57.20
Female	110	42.80
Total	257	100

Table 6: Respondents Sex Distribution.

Figure 7: Percentage Bar Chart of Sex Distribution.

From Table 6 the total age distribution of all respondents shows that out of 257 people that participated in the study, 147 (57.20%) were male and 110 (42.80%) were female.

Religious	Number of observation	Percentage
Christianity	230	89.49
Islam	17	6.61
Others	10	3.90
Total	257	100

Table 7: Respondents Religious Distribution.
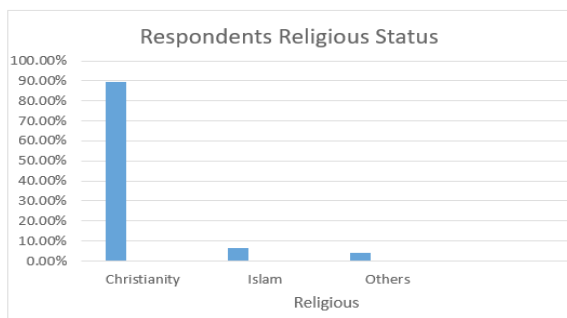
Figure 8: Percentage Bar Chart of Religious Distribution.

Table 7 the total age distribution of all respondents shows that out of 257 people that participated in the study, 230 (89.49%) were Christians; 17 (6.61%) were Muslim and 10 (3.90%) were of others religious (42.80%). Though, the religion of respondents in this study was less significant, but, was extracted just for a richer data and also provided the means through which some respondents became aware of the virus and the pandemic.

Responses	Yes	Undecided	No	Total
Observations	150	47	60	257
Percentage	58.37	18.29	23.34	100

Table 8: Responses on the awareness of covid-19 pandemic.

Table 8 shows that out of 257 responded in the study, 150 (58.37%) were aware of covid-19 pandemic; 47 (18.29%) were undecided and 60 (23.34%) were not aware of covid-19.

Responses	Church	Mosque	Hospital	School	Mass-media	Total
Observations	65	5	10	27	150	257
Percentage	25.29	1.95	3.89	10.51	58.37	100

Table 9: Sources of information on covid-19.

Table 9 shows that out of 257 respondents that participated in the study, 65 (25.29%) got information on covid-19 from church; 5 (1.95%) were from Mosque; 10 (3.89%) were from hospital; 27 (10.51%) were from school and 150 (56.37%) were from Mass-media

Responses	Agree	Undecided	Disagree	Total
Observations	121	38	98	257
Percentage	47.08	14.79	38.13	100

Table 10: Responses on does government promote healthcare from the first wave?

Table 10 shows that out of 257 respondents that participated in the study, 121 (47.08%) agreed that government promote healthcare services; 38 (14.79%) were undecided and 98 (38.13%) disagree that government did not promote healthcare services.

Responses	Mass-media	Funding	Provision of Relief Materials	Total
Observations	147	83	27	257
Percentage	57.20	32.30	10.50	100

Table 11: Responses on how does government promote healthcare from the first wave?

This demonstrates that out of 257 respondents that participated in the study, 147 (57.20%) that government promote healthcare services through Mass media; 83 (32.30%) through funding and 27 (18.29%) through provision of relief materials.

Discussion

The main objective of this study was achieved, considering the elementary/ secondary students, teaching and non-teaching staff were the target population that responded, with appropriate sample size and at the focused setting. The distribution was in accordance with their levels. The age distribution of student respondents shows that out of 232 students that participated in the study, 41 (17.67%) were within the ages of 14-16 years; 68 (29.31%) were within the ages of 17-19 years; 72 (31.04%) were within the ages of 20-22 years and 51 (21.98%) were within the ages of 23-25 years. This means that minority and majority of the respondents are between ages 14-16 years and 20-22 years respectively.

The age distribution of teaching staff respondents shows that out of 15 teaching staff that participated in the study, 1 (6.67%) was within the ages of 32-34 years; 2 (13.33%) were within the ages of 35-37 years; 3 (20,00%) were within the ages of 38-40 years; 3 (20.00%) were within the ages of 41-43 years; 4 (26.67%) were within the ages of 44-46 years and 2 (13.33%) were within the ages of 47-49 years. This means that minority and majority of the respondents were between ages 32-34 years and 44-46 years respectively, who have been in the school community for a substantive period. In addition, the age distribution of non-teaching staff respondents shows that out of 10 non-teaching staff that participated in the study, 2 (20.00%) were within the ages of 26-28 years; 3 (30.00%) were within the ages of 29-31 years; 3 (30.00%) were within the ages of 32-34 years and 2 (20.00%) were within the ages of 35-37 years. This means that minority and majority of the respondents were between ages (26-28 and 35-37) years and (29-34) years respectively. On the whole, the total age distribution of all respondents shows that out of 257 respondents in the study, 41 (15.95%) were within the ages of 14-16 years; 68 (26.46%) were within the ages of 17-19 years; 72 (28.02%) are within the ages of 20-22 years; 51 (19.84%) were within the ages of 23-25 years; 2 (0.78%) were within the ages of 26-28 years; 3 (1.17%) were within the ages of 29-31 years; 4 (1.56%) were within the ages of 32-34 years; 4 (1.56%) were within the ages of 35-37 years; 3 (1.17%) were within the ages of 38-40 years; 3 (1.17%) were within the ages of 41-43 years; 4 (1.56%) were within the ages of 44-46 years and 2 (0.78%) were within the ages of 47-49 years. This means that minority and majority of the respondents were between ages (26-28 and 47-49) years and 20-22 years respectively.

Furthermore, the total age distribution of all respondents shows that out of 257 people that participated in the study, 147 (57.20%) were male and 110 (42.80%) were female and the total age distribution of all respondents shows that out of 257 people that participated in the study, 230 (89.49%) are Christians; 17 (6.61%) are Muslim and 10 (3.90%) are of others religious (42.80%).

As a summary, the age distribution ascertained enabled classification of students, academics and non-academics, which is a reflection of proportion of respondents and their status. These two results indicate the schools under review are co-educational institutions and have multi-religious groups, which in anyway does not affect the existence of the school nor the study.

Responses on the awareness of Covid-19 pandemic

This objective was also met. Table 8 shows that out of 257 responded in the study, 150 (58.37%) were aware of Covid-19 pandemic; 47 (18.29%) were undecided and 60 (23.34%) were not aware of covid-19. However, respondents` sources of awareness varied from various places of worship 27.24%, hospitals 3.89%, schools 10.51% and mass media 58.37%.

These findings are consistent with World Health Organization (2009) quoted in Radhika et al (2019) quantitative cohort-study design article tagged "level of awareness of Dengue disease in 10 school with 2,194 students sample within the age range of 13-15 years which affirmed unawareness causes rapid spread of disease and that after the awareness programme there was significant improvement which was quoted as "good" "moderate" and "excellent" as presented (46.31%, n= 1016); (42.62%, n= 935), 2.92% (n= 64), (>80%). Meaning, awareness is key and awareness should be a key tool and entry point to prevent Covid-19 in school setting. Though no specific means through which students became aware, but the students and other staff in school community responses were forces to reckon with in terms of Covid-19 reduction and general school healthcare promotion. Again, the findings indicate enlightenment on Covid-19 pandemic covers all sectors of the society.

Government`s involvement in school healthcare promotion

This objective was likewise met, considering the fact that, the question on whether or not there was government`s involvement in school healthcare promotion in the wake of Covid-19 was responded, though there was no much data obtained in this regards from respondents. This perhaps could be an affirmation of researchers` earlier observation that, "the, government`s involvement was significant, no tangible fund was earmarked or activities set aside for Covid-19 prevention in elementary and secondary schools per se". Which again perhaps is the reason why little data was obtained from respondents with regards to this question. For instance, table 10 indicates that, out of 257 responded in the study, 121 (47.08%) agreed that government was involved in school healthcare promotion; 38 (14.79%) were undecided and 98 (38.13%) disagree that government did involve in promoting healthcare in school. The researchers further as what definite activity government embarked on. In table 10, out of the 257 responded in the study, 59(22.96%) stated that government

encouraged the use of mandatory wide spread face masks/shield and other personnel protective equipment to promote school healthcare at the wake of Covid-19 pandemic in all sector with more emphasis on school, due to its captive population. Whereas, 142 (55.25%) stated the use of hand sanitizers that the government provided, though for a short period were used to promote school healthcare; 37 (14.40%) that social distancing equally promotes school healthcare services and 19 (7.39%) that self-isolation also promotes healthcare from inception of Covid-19.

These responses on government`s involvement are consistent with IMF (2020) statement on its policy level summary sheet, were many aspects (provision of vaccines, encouraged closures of both private and public schools and fiscal means-through upward review of budget) in which the government has been involved the prevention of Covid-19 in Nigeria, even though plans for school healthcare promotion were not explicitly mentioned. Nevertheless, by implication, government has been involved.

Limitations of the Study

There were manageable limitations in course of carrying out this study, judging, this article was extracted from a wider HND Public Health Dissertation. Thus, time constraint was huge given the study was carried out simultaneously with other academic activities.

Suggestions for Further Studies

Further study can be conducted by comparing two schools in different state two to how government promote healthcare services and the factors that limit healthcare services. Equally, enough time should be given to encourage researchers.

Conclusion

The Covid-19 pandemic has created a variety of challenges throughout the nation and has impacted the school. The aim of this study was to ascertain the awareness of Covid-19 by school children, teachers and other allied staff and to ascertain whether or not government was involved in promoting school healthcare in the wake of Covid-19. Responses were elicited from targeted population with respect to the questions put forwarded. A good number of the respondents are aware and indeed government has been involved in promoting healthcare in the Demonstration secondary school to an extent, though not explicit.

Recommendations

Recommendations are that, all stakeholders should be adequately informed through any possible available means of reality of Covid-19, its ill-impact on school children if not prevented and the age appropriate preventive measures such as (face mask, social distancing, washing of hand etc.) by health workers. In addition, political leaders should make deliberate effort to be involved in school healthcare promotion.

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Appendix 1

Faculty of Nursing Sciences

College of Health Sciences

Niger Delta University

Wilber Island, Bayelsa State

P M B 071 Yenagoa

Ref: NDU/CHS/NUR/DN/VOL 3/   Date: …………………………

TO WHOM IT MAY CONCERN

The bearer …………………………………………………………. with the Index Number 20/PNNU/019 a final year student in the faculty of Nursing College of Health Sciences, Niger Delta University. She wants to carry out a research for academic exercise in partial fulfilment of an award of '' Public Health Nursing'' Certificate.

Please give her the necessary assistance and co-operation.

Thanking you for your kind gesture.

Dr. (Mrs) Augustina ChikaOdili Isabu

Ag. Dean: Faculty of Nursing Sciences.

College of Health Sciences,

Faculty of Nursing Sciences,

Niger Delta University,

Wilber Island, Amassoma, Bayelsa State.

Dear Respondents,

The Effects of Covid-19 on School Healthcare Promotion in Demonstration Nursery, Primary and Secondary Schools Isaac Jasper Boro College of Education Ekeki

I am a final year student of the above-named institution currently carrying out a research study, which is a pre-requisite for the award of Higher National Diploma Certificate in Public Health Nursing. The study is purely for academic purpose.

Please, your co-operation is highly needed while responding to the questions in the questionnaire. All information given in the course of this study will be highly treated with confidentiality.

Most obliged.

Section A

(**Instruction**: Please tick [ ] the correct answer in the options provided)

1.   Age (years)

2.   Marital (a) Married [ ] (b) Single [ ] (c) Divorced [ ]

3.   Religion (a) Christianity [ ] (b) Islamic [ ] (c) Others [ ]

4.   Educational background (a) Informal [ ] (b) Primary [ ] (c) Secondary [ ] (d) Tertiary [ ]

Section B

Assessment of the awareness of covid-19

S/N	Questions	Yes	Undecided	No
1.	Have you ever heard about covid-19?			
2.	If yes to question, which source?			
	(a) Church			
	(b) School			
	(c) Hospital			
	(d) Mass Media			
3.	Have you ever heard about causes of covid-19?			
4.	Is it a spiritual problem?			
5.	Is every malarial symptom being covid-19?			
6.	Have you ever heard about diagnosis of covid-19?			
7.	Is covid-19 real?			
8.	Are the world leaders playing politics with covid-19?			

Assessment of the awareness on the consequences of covid-19

S/N	Questions	Yes	Undecided	No
9.	Does covid-19 leads to death?			
10.	Does it affects respiratory tract?			
11.	Which of this is the most Covid-19 transmission?			
	(a) Hand shake			
	(b) Sneezing			
	(c) Lack of social distancing			
	(d) Lack of exercise			
12.	Does it leads to acute respiratory distress syndrome?			
13.	Does it really pronounce in the elderly one than the younger one?			
14.	Does covid-19 promote pandemic healthcare services?			

	If yes, through which of the following			
15.	(a) Self-isolation			
	(b) Social-distancing			
	(c) Use of faced-mask			
	(d) Use of hand sanitizer			

Assessment of the awareness on the prevention of covid-19

	Which this is most appropriate method of preventing covid-19?	Yes	**undecided**	**No**
16.	(e) Self-isolation			
	(f) Social-distancing			
	(g) Use of faced-mask			
	(h) Use of hand sanitizer			
17.	Apart from above in 16, do you think there is any other way?			
	(a) Prayer			
	(b) Use of local treatment			
	(c) Others			
18.	Does government promote healthcare?			
19.	If yes, how does government promote healthcare?			
	(a) Mass-Media			
	(b) Funding			
	(c) Provision of relief materials			

TEST-RETEST RELIABILITY COEFFICENT USING PEARSSON PRODUCT MOMENT CORRELATION (r)

$$r = (N\Sigma XY-(\Sigma X)(\Sigma Y))/\sqrt{([N\Sigma X^2- [(\Sigma X)]^2][N\Sigma Y^2- [(\Sigma Y)]^2])}$$

Where N=Number of pairs of scores

ΣXY=Sum of the products of paired scores

ΣX=Sum of x scores of the first test

ΣY=Sum of y scores of the second test

ΣX^2=Sum of squared x scores

ΣY^2=Sum of squared y scores

Variables	X (1st test)	Y (2nd test)	XY	x^2	y^2
Assessment of the awareness of covid-19	17	21	357	289	441
Assessment of the awareness on the consequences of covid-19	81	90	7290	6561	8100
Assessment of the awareness on the prevention of covid-19	64	72	4608	4096	5184
Total	162	183	12255	10946	13725

Substituting values into the above formula:

$r = (3 \times 12255 - 162 \times 183)/\sqrt{([3 \times 10946 - (162)^2][3 \times 13725 - (183)^2])}$

Therefore, the Pearson correlation coefficient is 0.9110

Means there is positive correlation the tests.

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