



## AWARENESS, ATTITUDE AND PRACTICES OF COVID-19 PREVENTIVE MEASURES AMONG SECONDARY SCHOOL TEACHERS IN OYO STATE, NIGERIA

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### ABSTRACT

*The purpose of this study was to examine the awareness, attitude, and practices of COVID-19 preventive measures among secondary school teachers in Oyo State, Nigeria. Three hundred and ten (310) participants constituted the study's sample using a correlational design. Both the independent and dependent variables were measured with validated instruments with a 0.81 and the data obtained was analyzed using simple percentage, mean, and standard deviation while the t-test statistical method was used to test the research hypotheses. Three (3) research questions were raised, and 3 hypotheses were formulated and tested at a 0.05 level of significance. The result showed that there was no significant difference in the awareness of COVID-19 preventive measures between male and female secondary school teachers. Also, the result showed that the value of ( $t = 1.79, df = 308, p > 0.05$ ), there is no significant difference in the attitude towards COVID-19 preventive measures of male and female secondary school teachers. Furthermore, the result revealed that ( $t = 1.52, df = 308, p > 0.05$ ), there is no significant difference in the practices of the COVID-19 preventive measures of male and female secondary school teachers. In view of these findings and it was recommended that there should be public health education programme on COVID-19 principally targeted at individuals with low knowledge levels and lower educational attainment.*

**Keywords: Awareness, Attitude, Practices, Covid-19, Preventive Measures and Teachers**

### INTRODUCTION

Coronavirus disease (COVID-19) is an infectious illness caused by the coronavirus 2 that causes severe acute respiratory syndrome (SARS-CoV-2). On December 31st, 2019, the virus was initially reported to the World Health Organization (WHO) national office in Wuhan, China, and on January 30th, 2020, it was declared a public health emergency. The World Health Organization declared this illness a worldwide pandemic on March 11th, 2020. COVID-19 has been verified in over 87.3 million people worldwide as of January 9th, 2021, with over 1.89 million fatalities. SARS-CoV-2 is a contagious virus that transmits from person to person by respiratory droplets and maybe aerosol transmission.

Fever, cough, sore throat, weariness, and myalgia are all signs of a COVID-19 infection. It may cause pneumonia, respiratory failure, cardiac arrest, and death in extreme instances. Currently, the most effective techniques to decrease the transmission of the virus and its consequent morbidity and death include social distance, frequent hand sanitization, routinely washing surfaces, quarantining, and wearing face masks (Rahman and Sathi, 2020).

The coronavirus (COVID-19) epidemic has had an influence on people's lives all across the world, as well as the economics of almost every nation. Since the disease's breakout in Nigeria, both the state and federal governments have implemented a number of control measures to tackle it. Despite all of the steps, the sickness continues to ravage the nation, although it is progressively diminishing. Dry cough, fever, anosmia, weakness, headache, bodily aches, vomiting, sore throat, and respiratory trouble are among signs of this extremely infectious illness, which may appear anywhere from 1 to 14 days after exposure (Ahmed, Shakoor, and Vohra, 2020). After getting the virus, some infected persons may stay asymptomatic, with no symptoms, while the majority of symptomatic cases are mild to severe. While the virus may infect people of all ages, the elderly are more susceptible.



Many Nigerians thought of COVID-19 as a remote white man's sickness that could never spread to their homes until the WHO declared it a worldwide public health problem and pandemic. Nigerians and their government downplayed the development of COVID-19 in their nation without obtaining professional advice and suggestions, delaying the deployment of first preventative measures that would have saved money while shielding civilians from needless exposure to the virus. Following the confirmation of the first COVID-19 case in Lagos, Nigeria on February 20, 2020, residents in other regions of the nation, particularly the north-central region, resumed their daily routines and social activities without adhering to the hazy precautionary measures recommended by the WHO (Nigeria Centre for Disease Control, 2020).

Furthermore, the presence of urban slums, dense populations, insufficient access to potable water, a shaky healthcare system, and sharing of sanitation facilities with a high degree of social mixing among the people of central Nigeria will make the implementation of hygiene and other public health measures necessary to combat the coronavirus impossible (Makoni, 2020). Furthermore, in the central Nigerian area, the distribution of false information and stories about COVID-19, as well as the promotion of dubious traditional treatments, hampered the execution of preventative measures (Vigdor, 2020).

Increased Covid-19 super-spreading conditions would very probably emerge from the government's inability to maintain its social distancing policy and restrictions on significant gatherings, such as religious and cultural festivals, funerals, weddings, and sports (Wong and Liu, 2020). Nearly every country in the globe is affected by the epidemic, which has an influence on the bulk of human activities, including the economic and health systems. Despite encouraging advances toward a vaccination, there is still no viable treatment for COVID-19.

Early detection of symptoms and immediate seeking of supportive medical treatment and preventative actions help patients recover more quickly and prevent the virus from spreading. Despite the government's impending preventative efforts, including as social distance, hand washing, travel limitations, and the use of alcohol hand rubs and face masks, according to Sahu (2020), these preventive and control measures are not yet being implemented throughout the nation. COVID-19 may be effectively prevented and controlled by increasing the general public's awareness, attitude, and practice, as well as the knowledge, attitude, and practice of high-risk population groups, such as suspected COVID-19 cases.

Since the outbreak, both the state and federal governments have taken steps to mitigate the illness, the latter via the Nigeria Center for Disease Control (NCDC), which is led by the Presidential Task Force (PTF) on COVID-19. Secondary school teachers are required to not only educate students and the surrounding community about the COVID-19 epidemic, but also to serve as role models for appropriate attitudes and behaviors in coping with it. COVID-19 may never go away, according to WHO (2020), posing a particular danger to children who are required to engage in face-to-face classroom activities. COVID-19 infections are exacerbated by a lack of physical exercise, weak immunity, irregular habits, and poor diet, all of which are common among students. To make things worse, COVID-19 transmission is aided by high population density and close interaction with other instructors and students both on and off campus, implying that teachers have a role to play. A person's attitude is a psychological construct, a mental and emotional entity that resides in or defines them (Richard, 2016).

Also, practice is a procedure or conduct that is performed on a regular basis and typically by choice. Practice is the act of frequently repeating a behavior or participating in an activity with the goal of improving or mastering it. Practice may also be defined as anything that is typically or regularly done, often as a habit, tradition, or custom, and the act of doing something regularly or repeatedly to increase your competence at doing it, according to Guillermo, Campitelli, and Fernand (2011). To stop the illness from spreading, many preventative methods have been



suggested like regular hand washing with soap and water, as well as the usage of alcohol-based hand sanitizers by instructors and use of face masks in public settings to avoid crowds and preserve social distance (Chu, Akland, and Duda, 2020).

It is against this background that it has become necessary to examine the awareness, attitude and practices of COVID-19 preventive measures among secondary school teachers in Oyo State, Nigeria.

### **Statement of the Problem**

Poor awareness, attitudes, and practices may be an obstacle in seeking treatment, or reporting illness to university healthcare officials or the nearest health facility, thus contributing to a high prevalence of COVID-19 both in and around secondary schools. Following the confirmation of the first COVID-19 case in Lagos, Nigeria on February 20, 2020, other areas of the nation, particularly the north-central region, went about their daily routines and social activities as usual, ignoring the hazy precautionary steps specified by the government (Nigeria Centre for Disease Control, 2020).

In addition, there is a lack of drinkable water, a shaky healthcare system, and a high level of social mingling among the instructors who share sanitary facilities. Furthermore, the propagation of false information and stories about the COVID-19, as well as the promotion of dubious traditional treatments in central Nigeria, hampered the execution of preventative measures. Inability of the government to maintain the social distancing policy and ban on large gatherings, such as religious and cultural activities, funerals, weddings, and sports, will almost certainly result in accelerated COVID-19 super-spreading scenarios. However, adequate government support for effective preventive measures will increase teachers' awareness, knowledge, and practices of Covid-19 preventive measures.

Base on literature reviewed, no specific research has been conducted on improving Covid-19 prevention awareness, attitudes, and practices (AAP) among secondary school teachers, particularly in Oyo State. In order to maintain a uniform approach and assure the quality of the instructors' AAP evaluation, new tools must be verified. The availability of a validated AAP instrument will enable researchers to assess the impact of increased awareness, attitudes, and practices on teacher performance.

Therefore, it has become necessary to examine the awareness, attitude and practices of Covid-19 preventive measures among secondary school teachers in Oyo State, Nigeria.

### **Research Hypotheses**

The following are research hypotheses.

**Ho1:** There is no significant difference in the awareness of covid-19 preventive measures among secondary school teachers based on gender

**Ho2:** There is no significant difference in the attitude toward covid-19 preventive measures among secondary school teachers based on gender

**Ho3:** There is no significant difference in the practices of covid-19 preventive measures among secondary school teachers based on gender

### **Scope of the Study**

The scope of the study concentrates on the awareness, attitude, and practices of COVID-19 preventive measures among secondary school teachers in Oyo State, Nigeria. The study covered both male and female teachers with different educational qualifications and teaching

subjects in Oyo State, Nigeria. Thirty-three (33) local government areas in the state served as the geographical scope of the study. The sample size of respondents was three hundred and thirty (330) teachers in eleven (11) selected schools, with thirty teachers from each school, from all eleven local governments in Ibadan. A simple random technique was used to collect the data. The statistical methods of frequency counts and simple percentage was used to analysed the respondents' characteristics, while the t-test method was applied to analysed the research hypotheses to establish the differences in the AAP based on gender.

## METHODOLOGY

The study used a cross sectional survey research approach. A cross-sectional survey collects data to make inferences about a population of interest universe at one point in time. Cross-sectional surveys can be described as snapshots of the populations about which they gather data. The population for this study was made up of all secondary school teachers in Oyo State, Nigeria. However, the sample for the study comprised three hundred and thirty (330) teachers from eleven (11) chosen schools (30 teachers from each school) from all eleven local governments in Ibadan were included in the sample. The questionnaire utilized in this research was an adaptation of the Covid-19 Scale's Awareness, Attitudes, and Practice (AAPCS). The percentage statistical approach was utilized to examine the characteristics of the respondents, while the t-test method was employed to examine the study hypotheses.

## RESULTS

### Demographic Data of the Respondents

This section presents the results of data obtained from the respondents in percentages.

**Table 1: Demographic Distribution of Respondents**

| Variables                         | Frequency  | Percentage (%) |
|-----------------------------------|------------|----------------|
| <b>Age</b>                        |            |                |
| Below 20 – 30 years               | 64         | 20.6           |
| 31 - 40 years                     | 156        | 50.3           |
| 50 years and Above                | 90         | 29.0           |
| <b>Total</b>                      | <b>310</b> | <b>100.0</b>   |
| <b>Gender</b>                     |            |                |
| Male                              | 124        | 40.0           |
| Female                            | 186        | 60.0           |
| <b>Total</b>                      | <b>310</b> | <b>100.0</b>   |
| <b>Educational Qualifications</b> |            |                |
| NCE                               | 96         | 31.0           |
| OND                               | 64         | 20.6           |
| HND                               | 45         | 14.5           |
| Degree                            | 75         | 24.2           |
| PG                                | 30         | 9.7            |
| <b>Total</b>                      | <b>100</b> | <b>100.0</b>   |
| <b>Religion</b>                   |            |                |
| Christianity                      | 190        | 61.3           |
| Islam                             | 115        | 37.1           |
| Traditional                       | 5          | 1.6            |
| <b>Total</b>                      | <b>310</b> | <b>100.0</b>   |
| <b>Work Experience</b>            |            |                |
| 1-5 Years                         | 112        | 36.1           |
| 6-10 Years                        | 108        | 34.8           |
| 10 Years and Above                | 90         | 29.0           |
| <b>Total</b>                      | <b>310</b> | <b>100.0</b>   |

Table 1 showed the distribution of respondents by age, gender, educational qualification, work experience and religion. It showed that 310 respondents participated in the study. The male participants were 124 (40.0%) while 186 (60.0%) were females; 64 (20.6%) were below 30 years, 156 (50.3%) 31-40 Years and 90 (29.0%) were 50 years and above. 96 (31.0%) of the respondents were below NCE holder, 64 (20.6%) OND, 45 (14.5%) HND, 75 (24.2%) Degree and 30 (9.7%) were postgraduate certificate holders. 190 (61.3%) of the respondents were Christian, 115 (37.1%) Muslims and 5 (1.6%) were traditional. 112 (36.1%) of the respondents were below 1-5 years of experience, 108 (34.8%) 6-10 years and 90 (29.0%) were 10 years and above. The implications of this table revealed that larger percent of the respondents were female with 31-40 years of age. Also, larger percent of the respondents were NCE certificate holders who are muslims and with 1-5 years of experience.

### Testing of Research Hypotheses

#### ***Research Hypothesis One: There is no significant difference in the awareness of covid-19 preventive measures among secondary school teachers base on gender***

**Table 2: T-test showing the difference in the awareness of Covid-19 preventive measures among secondary school teachers base on gender**

| Variable | N   | Mean  | SD   | t-Cal | t-Crit | Df  | p    | Remark |
|----------|-----|-------|------|-------|--------|-----|------|--------|
| Male     | 124 | 23.90 | 3.54 |       |        |     |      |        |
| Female   | 186 | 24.73 | 4.25 | 1.79  | 1.96   | 308 | 0.07 | NS     |

The result from table 2 above shows the value of ( $t= 1.79$ ,  $df = 308$ ,  $p>0.05$ ). Since  $p> 0.05$  and the t-calculated value (1.79) is lesser than the t-critical value (1.96), therefore, there is no significant difference in the awareness of Covid-19 preventive measures of male and female secondary school teachers. The results from hypothesis one revealed that the female respondents had higher mean than their male counterparts but the significant is not statistically significant. Therefore, the null hypothesis formulated was accepted that there was no significant difference in the awareness of covid-19 preventive measures among secondary school teachers base on gender.

#### ***Research Hypothesis Two: There is no significant difference in the attitude towards covid-19 preventive measures among secondary school teachers base on gender***

**Table 3: T-test showing the difference in the attitude towards Covid-19 preventive measures among secondary school teachers base on gender**

| Variable | N   | Mean  | SD   | t-Cal | t-Crit | Df  | p    | Remark |
|----------|-----|-------|------|-------|--------|-----|------|--------|
| Male     | 124 | 24.90 | 3.54 |       |        |     |      |        |
| Female   | 186 | 25.73 | 4.25 | 1.79  | 1.96   | 308 | 0.07 | NS     |

The result from table 4.6 above shows the value of ( $t= 1.79$ ,  $df = 308$ ,  $p>0.05$ ). Since  $p> 0.05$  and the t-calculated value (1.79) is lesser than the t-critical value (1.96), therefore, there is no significant difference in the attitude towards of Covid-19 preventive measures of male and female secondary school teachers. The results from hypothesis one revealed that the female respondents had higher mean than their male counterparts but the significant is not statistically significant. Therefore, the null hypothesis formulated was accepted that there was no significant difference in the attitude towards covid-19 preventive measures among secondary school teachers base on gender.

**Research Hypothesis Three: There is no significant difference in the practices of covid-19 preventive measures among secondary school teachers base on gender**

**Table 4: T-test showing the difference in the practices of Covid-19 preventive measures among secondary school teachers base on gender**

| Variable | N   | Mean  | SD   | t-Cal | t-Crit | Df  | p    | Remark |
|----------|-----|-------|------|-------|--------|-----|------|--------|
| Male     | 124 | 22.92 | 3.75 |       |        |     |      |        |
| Female   | 186 | 23.72 | 4.99 | 1.52  | 1.96   | 308 | 0.13 | NS     |

The result from table 4 above shows the value of ( $t = 1.52$ ,  $df = 308$ ,  $p > 0.05$ ). Since  $p > 0.05$  and the t-calculated value (1.52) is lesser than the t-critical value (1.96), therefore, there is no significant difference in the practices of Covid-19 preventive measures of male and female secondary school teachers. The results from hypothesis one revealed that the female respondents had higher mean than their male counterparts but the significant is not statistically significant. Therefore, the null hypothesis formulated was accepted that there was no significant difference in the practices of covid-19 preventive measures among secondary school teachers base on gender.

### Discussion of the Findings

The cluster mean and standard deviation were evaluated higher than the cut-off criterion in the first study question. This indicates that secondary school instructors are extremely knowledgeable with Covid-19 prevention strategies. This is in accordance with the World Health Organization's (WHO) conclusion (2020), which said that since there is no proven and accepted medicinal treatment, the best method to control the virus and prevent it from spreading is to adopt preventive behaviors. Infection control measures have been identified as quarantine of infected persons, social distancing, self-isolation, school, workplace, and market closures, cancellation of large public gatherings, and hygienic practices, such as frequent hand washing with soap, wearing face masks, and using hand sanitizers (Leppin and Aro, 2020).

The cluster mean and standard deviation were evaluated below the cut-off mark of 2.50, according to the results of the second study inquiry. This suggests that secondary school instructors have a negative view regarding Covid-19 prevention methods. They also hypothesized that perception of risk would act as a conduit via which attitude and awareness of COVID-19 will affect cautious behavior, and that this effect may be greater for females than for men, in line with Abdelrahman's (2020) findings. The capacity of a person to encourage cautious behavior is highly dependent on the perceived risk of developing a disease, according to studies confirming the current finding, and risk perception is a major predictor of precautionary behavior (Zhang, 2020).

The cluster mean and standard deviation were evaluated below the cut-off mark of 2.50, according to the third study question. This means that among secondary school instructors, the use of Covid-19 preventative measures is rather low. This supports Richard's (2016) findings, which state that attitude is a psychological construct, a mental and emotional thing that resides in or describes a person. It is a person's predisposed state of mind about a value that is triggered by a responding expression towards oneself, a person, a location, an item, or an event, which then impacts the person's cognition and behaviour.

The first study hypothesis found that female respondents had a higher mean than male respondents, but the difference was not statistically significant. As a result, the null hypothesis that there was no significant difference in knowledge of covid-19 preventative measures among secondary school teachers based on gender was accepted. This is in line with the findings of Jayathilake (2013), who discovered that males have a higher risk perception than females, and



that the gender effect on risk behavior is partially mediated by risk propensity, or a proclivity for risk. This new and important insight suggests that risk perception can go in any direction, depending on the potency of other underlying variables.

The second study hypothesis found that female respondents had a higher mean than male respondents, but the difference was not statistically significant. As a result, the null hypothesis was supported, indicating that there was no significant gender difference in attitudes on covid-19 prevention measures among secondary school instructors. This supports Vartti's (2009) result that those who are more aware about the disease's pathogenesis worry more about being infected, implying a relationship between knowledge and risk perception.

The third study hypothesis found that female respondents had a higher mean than male respondents, but the difference was not statistically significant. As a result, the null hypothesis was accepted, indicating that there was no significant difference in the use of covid-19 preventative measures by gender among secondary school teachers. This is congruent with the findings of Bish and Michie (2010), who said that the conclusion that gender disparities exist in cautious behavior is consistent with previous research in which females have consistently been shown to participate in more precautionary behavior than their male counterparts.

## **Conclusion**

To conclude, the data imply that throughout the epidemic, the general public exhibited excellent awareness, positive attitudes, and appropriate practice with COVID-19. Furthermore, based on the considerable positive relationship shown in our research between knowledge, attitude, and practice, health education programs, especially those aimed at those with little understanding of COVID-19, are critical for fostering good attitudes and maintaining safe behaviors. Hopefully, by expanding awareness among public health policymakers and enlisting the help of the Nigerian government and the general public, the illness may be effectively controlled and eradicated.

## **Recommendations**

Based on the findings in this study, the following were recommended:

1. Public health education programs on COVID-19 should primarily target individuals with low knowledge levels and lower educational attainment, and that more efforts are needed for residents of Oyo state, as such efforts may improve the right attitude and adoption of non-harmful COVID-19 related practices, which are necessary to mitigate the impact of COVID-19 on the target population in Rivers State.
2. Clinical medicine should include medication administration and direct patient care in health facilities, whereas public health focuses on overall health issues at both the institutional and community levels. In the administration of COVID19 through a dual mechanism, dependency of both fields is essential. This would allow all members of the community, even the ostensibly healthy, to be captured.
3. In addition, depending on the unique characteristics of facilities and communities, specific interventions may be created and implemented. Though resources are limited, it is projected that the COVID-19 pandemic would get the majority of available resources. During the COVID-19 epidemic, it is intended that government officials would guarantee that money are distributed wisely.
4. Resources should be focused on expanding diagnostic facilities, providing health facilities and isolation centers with additional bed units, triaging equipment, IPC equipment, suitable compensation for health personnel, and patient monitoring and life support equipment. To alleviate the harmful consequences of the epidemic and facilitate the return



to normality, all parties, including the government, healthcare staff, and private groups, must cooperate together.

5. The government has to develop a robust health system that can handle present difficulties and be deployed in the case of another epidemic. Counseling psychologists and program designers are needed to educate teachers and pupils about Covid-19 prevention measures in order to eliminate the virus and minimize its spread. The government should mandate and fund counseling services in all federal, public, and private institutions, so that students with psychological issues may get the help they need.



## REFERENCES

- Abdelrahman, M. K. (2020, April 14). Personality Traits, Risk Perception, and Protective Behaviors of Arab residents of Qatar during the COVID-19 pandemic. <https://doi.org/10.1007/s11469-020-00352-7>
- Ahmed, N., Shakoob, M., and Vohra, F. (2020). Knowledge, Awareness and Practice of Health care Professionals amid SARS-CoV-2, Corona Virus Disease Outbreak. *Pak Journal of Medical Sciences*; 36(COVID19-S4): S49–S56.
- Chang, M., Park, Y., and Kim, B. (2020). Risk factors for disease progression in COVID-19 patients. *BMC Infectious Diseases*; 20(1): 445.
- Chu, D., Akl, A., and Duda, S. (2020). Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. *Lancet*; 395(10242): 1973–1987.
- European Centre for Diseases Control. (2020). COVID-19 situation update worldwide, as of 14 May 2020. Retrieved 14 May 2020 from <https://www.ecdc.europa.eu/geogr...> (accessed 15 May 2020).
- Guillermo, D., Campitelli, T., & Fernand, S. (2011), Deliberate practice: Necessary but not sufficient. *Current Directions in Psychological Science*, 20, 280-285.
- Hu, C., Wang, Y., Li, X., Ren, L.,... Caot, R. (2020). *Clinical features of patient infected with 2019 novel Coronavirus in Wuhan, China*. doi:10.10116/SO140-6736(20)30183-5
- Jayathilake, B. (2013). Gender Effects on Risk Perception and Risk Behaviour of Entrepreneurs at SMES in Sri Lanka. Asia Japanese. *Mark.Manag. Rev.* 2, 1–11. doi: 10.4038/jccpsl.v15i1.4934
- Leppin, D and Aro., J. (2009). Covid-19: Current Knowledge, Disease Potential, Prevention and Clinical Advances. *What journal?* 44, 121–131. doi: 10.3906/biy-2005-29
- Liu, Y. (2020). The reproductive number of COVID-19 is higher compared to SARS coronavirus. *Journal of Travel Medicine*, 27(2).doi:10.1093
- Makoni, A. (2020). Five Dialogues. *Indianapolis, IN: Hackett Pub. Co. pp. 89–90, 97b–98a*. ISBN 978-0-87220-633-5.
- NCDC. (2020). COVID-19 outbreak in Nigeria: Situation report. Retrieved from <https://www.ncdc.gov.ng/themes/common/files/sitreps/e38dbfac91ddf317f73ab2c29cc5460e.pdf/>
- NCDC. (2020a). An update of COVID-19 outbreak in Nigeria. Retrieved from <http://covid19.ncdc.gov.ng/index>.
- Nigeria Centre for Disease Control and Prevention. (2020). Available from: <https://ncdc.gov.ng/news/227/rst-case-of-corona-virus-disease-conrmed-in-nigeria>.
- Rahman, A., and Sathi, N. (2020). Knowledge, Attitude, and Preventive Practices toward COVID-19 among Bangladeshi Internet Users. *Electronic Journal of General Medicine*; 17(5): 24-35.
- Richard, M., and Perloff, G. (2016). The Dynamics of Persuasion: *Communication and Attitudes in the Twenty-First Century*, Routledge, 738.3.
- Vartti, G. (2009). Pandemic influenza in Australia: using telephone surveys to measure perceptions of threat and willingness to comply. *Infectious Diseases Society of America*. 8, 117–130. doi: 10.1186/1471-2334-8-117
- Vigdor, B. (2020). "What attitudes are moral attitudes? the case of attitude heritability". *Social Psychological and Personality Science*. 3 (2): 172–179. doi:10.1177/1948550611412793. S2CID 144521875.
- World Health Organisation. (2020). Clinical Characteristics of Coronavirus Disease 2019 in 2020; 382(18): 1708–1720.
- World Health Organization. (2020c). WHO emergencies press conference on novel coronavirus. Geneva, Switzerland:3465.87
- Zhong, B.,Luo W., Zhang, Q., Liu, X., Li, W., and Li, Y. (2020). Knowledge, attitudes and practices towards COVID19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: a quick online cross-sectional survey. *International Journal of Biological Sciences* 16(10):1745–1752 DOI 10.7150/ijbs.45221.