

Compliance with WHO Recommended Measures Against Covid-19 among a Nigerian Population

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The fright and devastation that accompanied COVID-19 pandemic these past two years cannot be totally quantified. More so, the cycle of fear, panic, uncertainty and attempts at curtailment repeats itself every time the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) mutates and produces a new variant. Based on available evidence, the COVID-19 virus can be transmitted between people through close contact and droplets. The World Health Organization therefore, recommended personal protective measures to prevent and slow down the spread of infection. The most effective preventive measures recommended for the community are to perform hand hygiene frequently with an alcohol-based hand rub (sanitizer) if hands are not visibly dirty or with soap and water if hands are dirty; to avoid touching the eyes, nose, and mouth; to practice respiratory hygiene by coughing or sneezing into a bent elbow or tissue and to immediately disposing of the tissue; wearing a medical mask if you have respiratory symptoms and performing hand hygiene after disposing of the mask and maintaining social distance (a minimum of 1 meter) from persons with respiratory symptoms.

This study assessed compliance of a Nigerian population with protective measures recommended by WHO to curb the spread of COVID-19 infection.

A cross-sectional survey among patients attending family medicine outpatient clinic in a Teaching Hospital. Interviewer-administered questionnaire was used to collect data on participants demographics and use of personal preventive measures for COVID-19 infection. Participants' hand hygiene was assessed using WHO recommendations with options such as soap and water for 40 seconds, soap and water < 40 seconds, soap & sanitizer, sanitizer 5 seconds, sanitizer 20 seconds. Face mask use was assessed with options like 'yes always' and 'yes sometimes' taken as compliance and 'no, it can't reduce spread of COVID-19' as non-compliance.

Two hundred and ten participants who gave consent were recruited for the study using simple randomization. Response rate was 93.8%.

Data analysis was done with Analysis was carried out with IBM SPSS version 25.0 (IBM Corp., Armonk, USA). The results were presented as frequency tables and cross-tabulations. Chi-square test was

carried out with consideration for statistical significance at $P < 0.05$.

One hundred and ninety-six consecutive participants who gave consent were recruited for the study. There was a male predominance. Participants' age ranged between 18 and 84 years with mean age of 34.92 ± 14.10 years. Half of participants had at least university education and about one tenth are professionals. About two-fifth earn less than 100 dollars monthly.

Though about three-fifth of participants have heard of WHO recommended hand washing for COVID-19 prevention, only two-fifth follow it.

One third of participants regularly use face mask in the public and 85.2% still shake hands. Less than 10

% do not use soap and water or sanitizer to clean their hands. Majority of participants attitudinal change to handwashing as a preventive measure for COVID-19 prevention was good. Majority of participants personal preventive measures against COVID-19 were regular washing of hands and boosting immunity with vitamins. The association between participants' demographics and WHO recommendation for hand washing in the prevention of COVID-19 showed a significance based on sex ($p = 0.04$). Females paid attention to washing of hands than males. The association between participants' demographics and use of face masks in the prevention of COVID-19 showed that education was significant in determining use ($P = 0.04$)

Table 1: Demographic characteristics of the participants

Variables	Frequency (n)	Percent (%)
Sex		
Female	79	40.3
Male	117	59.7
Age group (years)		
10-20	18	9.2
21-30	81	41.3
31-40	49	25.0
41-50	22	11.2
51-60	8	4.1
61-70	14	7.1
>70	4	2.0
Mean age $\pm$ SD = 34.92 ± 14.10 years		
Tribe		
Hausa	8	4.1
Igbo	76	38.8
Yoruba	10	5.1
South-South	102	52.0
Marital status		
Single	101	51.5
Married	88	44.9
Divorced/Separated	7	3.6
Education		
Secondary and below	46	23.5
Diploma	52	26.5
Bachelor	85	43.4
Master/PhD	13	6.6
Profession		
Students	52	26.5
Self-employed	84	42.8
Professionals	18	9.2
Civil servants	26	13.3
Retiree	16	8.2

Monthly income		
<50,000 naira	88	44.9
51,000-100,000 naira	55	28.1
101,000-200,000 naira	34	17.3
201,000-400,000 naira	15	7.7
>400,000 naira	4	2.0
Total	196	100.0

Table 2: Participants' use of personal protective measures against COVID-19 as recommended by WHO

Variables	Frequency (n)	Percent (%)
Have you heard of WHO recommendation for hand washing?		
Yes	113	57.7
No	83	42.3
Do you follow WHO recommendation for hand washing		
Yes always	75	38.3
Sometimes	54	27.5
Rarely	64	32.7
Never	3	1.5
Regular public use of face mask		
Yes always	69	35.2
Yes sometimes	102	52.0
No, it can't reduce spread of COVID-19	21	10.7
Never	4	2.0
Do you still shake hands during this Covid-era?		
Yes always	38	19.4
Yes Often	43	21.9
Yes sometimes	86	43.9
No, I don't	29	14.8
Hand hygiene (Use of soap and water and use of sanitizers)		
Soap and water for 40 seconds	72	36.7
Soap and water < 40 seconds	63	32.1
Soap & sanitizer	25	12.8
Sanitizer 5 seconds	17	8.7
Sanitizer 20 seconds	6	3.1
Neither use soap nor sanitizer	13	6.6
Total	196	100.0

Awareness of personal preventive measures to COVID-19 in the area of washing of hands is increased among participants but there is the need to improve in the use of face masks and physical distancing.

Keywords: COVID-19, personal protective measures, demographics

References

1. Masaki M, Itaru N, Reiko S, Tomoki N, Tomoya H, Tomoko T, Yuko O, Noritoshi F, Hiroyuki K, Takako K, Hidehiro W, Shigeru I. Adoption of personal protective measures by ordinary citizens during the

COVID-19 outbreak in Japan. *Int J Infect Dis* 2020; (94):139-144.

2. World Health Organization. Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19): interim guidance, 19 March 2020. World Health Organization. <https://apps.who.int/iris/handle/10665/331498>. Accessed Jan 24, 2022.
3. Machida M, Nakamura I, Saito R, Nakaya T, Hanibuchi T, Takamiya T, Odagiri Y, Fukushima N, Kikuchi H, Amagasa S, Kojima T, Watanabe H, Inoue S. Incorrect Use of Face Masks during the Current COVID-19 Pandemic among the General Public in Japan. *Int J Environ Res Public Health* 2020; 17(18):6484.

4. Musa SS, Bello UM, Zhao S, Abdullahi ZU, Lawan MA, He D. Vertical Transmission of SARS-CoV-2: A Systematic Review of Systematic Reviews. *Viruses* 2021; 13(9):1877.
5. Priniski JH, Holyoak KJ. A darkening spring: How preexisting distrust shaped COVID-19 skepticism. *PLoS One*. 2022; 17(1): e0263191.
6. Gerber MM, Cuadrado C, Figueiredo A, Crispi F, Jimenez-Moya G, Andrare V. Taking care of each other: How can we increase compliance with personal protective measures during the COVID-19 pandemic in Chile. *Political Psychol* 2021; 42 (5):863-880.
7. Ajide KB, Ibrahim RL, Alimi OY. Estimating the impacts of lockdown on Covid-19 cases in Nigeria. *Transportation Res Interdisc Perspect* 2020; 7: 100217.
8. Iboi E, Sharomi OO, Ngonghala C, Gumel AB. Mathematical Modeling and Analysis of COVID-19 pandemic in Nigeria. *Mathematics Biosci Eng* 2020; 17(6):7192-7220.