



HYGIENE PRACTICES: AN INSTRUMENT FOR CURBING COVID-19 VIRUS AND SUSTAINING NATION'S HEALTH

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Abstract: COVID-19 Virus also known as Coronaviruses disease is a serious and highly infectious respiratory disease. There is uncertainty in the specific treatment and vaccination of Coronavirus disease. However, to contain the virus, hygiene practices has been put in place. Hygiene practice lowers the risk of disease or illness and kills germs. This paper examined various hygiene practices such as regular hand washing with soap and use of alcohol base hand sanitizer, maintaining social and physical distancing, ban on gathering like worship centres, parties and closure of schools as well as respiratory hygiene. In conclusion, adequate hygiene practices lower the risk of diseases and illness and promote the nation's health.

Key words: Hygiene Practices, Instrument, Curbing and Sustaining, Nation's Health

Introduction

There is an old adage which says that 'health is wealth'. It is only in good health would one flourish as well as the nation. According to Insel and Roth (2010), "a healthy population is the Nation's greatest resort, the source of its vitality and wealth. Poor health in contrast, drains the Nation's resources and raises national health care costs". During this period of COVID-19 Virus pandemic disease, most nation's health and wealth are affected. COVID-19 Virus (Coronavirus) disease is a highly devastating communicable disease that accounts for a major proportion of the global disease burden causing significant morbidity and mortality. COVID-19 Virus also known as coronavirus disease originated from Wuhan in China and has become one of the most infectious diseases challenge to public health that has virtually affected every country directly or

indirectly. This communicable infection has resulted to a great pandemic with a devastating effect that affected almost the whole world.

To prevent the further occurrence of this catastrophe, certain measures have been put in place amongst them are Hygiene practices, social distances, bans to mention but a few. Hygiene practices as part of life style carried out by individuals promotes health and brings about high standard of physical fitness. Good hygiene practices are both good for health and social reason. In order to contain the spread of this communicable disease (COVID-19 virus), very high emphases is laid on hygiene practices.

COVID-19 (Coronavirus) Disease its origin and transmission

Coronavirus disease is a serious fatal communicable respiratory disease. According to WHO(2020), Coronaviruses (COV) are a large

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family of viruses that cause illness ranging from common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS-COV) and Severe Acute Respiratory Syndrome (SARS-COV). A novel coronavirus (nCoV) is a new strain that has not previously been identified in humans. Detailed investigations found that SARS-CoV was transmitted from civet cats to humans and MERS-CoV from dromedary camels to humans.

Muhammad and Siddique (2020) described coronavirus disease 19 (COVID-19) as “a highly transmittable and pathogenic viral infection caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), which emerged in Wuhan, China and spread around the world”. Wang, Horby, Hayden and Gao (2020), explained that “COVID-19 Virus disease outbreak was initiated from human seafood market in Wuhan city of china and rapidly infected more than 50 peoples”. They stated that the live animals are frequently sold at the human seafood market such as bats, frogs, snakes, birds, marmots and rabbits. They explained that the virus penetrates human body (lungs) via inhalation through the nose and mouth.

Science Daily of 17 march, 2020 reported that “On December 31,2019., Chinese authorities alerted the World Health Organization of an outbreak of a novel strain of coronavirus causing severe illness, which was subsequently named SARS-CoV-2. As of February 20, 2020, nearly 167,500 COVID-19 cases have been documented; although many more mild cases have likely gone undiagnosed also the virus has killed over 6,600 people. The Director general of WHO, declared 2019 nCoV outbreak a Public Health emergency of international concern under international Health Regulation (HR) 2005, following advice from the emergency committee. Cennimo (2020) recorded

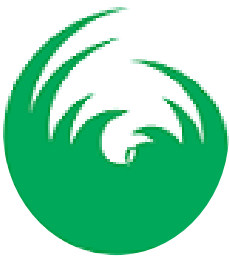
that, on March 11, 2020, WHO declared COVID-19 as a global pandemic.

The first Severe Acute Respiratory Syndrome (SARS) epidemic occurred in China 2003. Also a second outbreak of severe respiratory illness called the Middle respiratory Syndrome (MERS) took place in 2012 in Saudi Arabia. Coronavirus causes mainly respiratory infections in humans. This disease penetrates to individuals through inhalation. Infected individuals with SARS-CoV-2 sometimes remain asymptomatic for 2 to 14 days after coming in contact with the infection. This communicable disease can be controlled to a large extent through effective hygiene practices to reduce exposure to infectious agents.

CONCEPTS OF HYGIENE

Hygiene is a branch of science that deals with the promotion and preservation of health. Hygiene is conditions and practices that help to maintain health and prevent the spread of diseases ((WHO 2020). According to Achalu (2008), hygiene is a science that deals with promotion and preservation of health. The significance of hygiene practices started form early age at home and mother being the teacher has always thought the children the only way to keep away from disease causing agents is to maintain cleanliness. Poor hygiene practice is disgusting, disrespectful and life threatening.

It is said that cleanliness is next to godliness. Some leading causes of illness and death today is as a result of poor hygiene behaviour. Disease can be prevented through various hygiene practices. Hygiene practice prevents spread of diseases causing agents, helps to promote health and sustains the health of the nation without cleanliness, healthiness cannot be achieved. People’s health depends on good hygiene practices.



HYGIENE PRACTICES

These are various activities maintained to reduce or control the exposure to infectious agents or prevention of diseases. Hygiene is a broad term that encompasses personal habit choices that is, how often one bathes, washes hands, keep finger and toe nails clean, washes and cleans the surfaces at home and in workplace. To contain the spread of COVID-19 Virus (Coronavirus disease) the following hygiene practices are employed.

- **Personal Hygiene:** This is the general cleanliness of the body and our clothing, such as proper hand washing, taking care of our hair, mouth, and feet, bathing and washing our clothing.

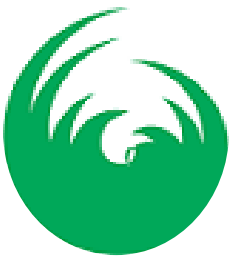
Hand Hygiene: This is one of the most effective ways of preventing infectious diseases. Washing of hands with soap preferably under running water and using a waterless hand sanitizer helps in preventing spread of infectious diseases in home and everyday life settings (Bloomfield, Sally, Aiello, Allison, Cookson, O'Boyle, Larson and Elaine 2007). Quick hand washing does not lower the risk of disease or illness. Washing of hands is done in this form; wet the hands, apply soap, scrub back of hands, between fingers, under finger nails, the wrist and almost to the elbows, then rinse. This helps to remove hidden bacteria that like to sit on the creases and crevices.

WHO in different times, recommended different types of ingredients for hand washing as follows; WHO (2011), recommends the use ash, under critical condition where soap is not available, and in schools without access to soap. In post emergencies where water is not available,

WHO (2009) recommends use of sand for hand washing. Furthermore, Baker, Dil Farzana, Ferdous, Ahmed, Kumar Das, Faruque, Nasrin, Kotloff, Natoro, Kolappaswams and Levine (2004) attest that use of ash is common in rural areas of developing countries and has in experiments been shown at least as effective as soap for removing Pathogens. Washing of hands removes invisible Micro-organism that can only be visible under microscope.

Regular and thorough washing of hands with alcohol-based hand rub or washing with soap and water, kill the viruses that maybe found in the hands. The hands touches a lot of things like foods, people, laptops, phones, surfaces and so on, hence pick some invisible micro-organisms that are dangerous to health. Therefore, Allison et; al (2008) acknowledged that hand hygiene is considered an important intervention measure for pandemic public health threats such as serve acute respiratory Syndrome. Hand washing, if well practised: washing with soap and water prevents other communicable diseases like diarrhoea. Cholera, respiratory infections, it also reduce incidence of skin diseases, eye infections like trachoma and interstitial worms especially Ascariasis and Trichiriasis (Jeroen 2006, Jefferson et'al 2007, Luby et al 2005, 2002 and Bloomfield et'al 2009).

- **Respiratory Hygiene:** Coughs and Sneezes spread diseases. This is very true of air-borne diseases especially among crowd. WHO (2020) confirmed Covid-19 as air-



borne that remains 8 hours in air. Observing cough and sneezing etiquette is very important as to reduce the spread of viruses. Everyone should be encouraged to practice respiratory hygiene, by covering mouth and nose with bent elbow or with tissue while coughing sneezing or yawning to avoid droplets spread of viruses such as cold, flu and covid-19.

Using of tissue during coughing and sneezing should be encouraged, proper disposal of used tissue and immediate washing of hands with soap and water or alcohol base sanitizer. COVID-19 is transmitted through coughing sneezing and yawning. The high sensitivity camera identifies the spread of Over 0.1 micro meter =10,000 millimetre in diameter of Covid-19 virus during sneezing. Also avoid close range conversation as this virus stay in air.

- Social distancing: Before someone can become infected with an infectious agent, he must first come in contact with an infected person or must be exposed to the organism. WHO (2020) advised people to maintain social distancing as another form of preventive measure. That means, staying about 6 feet away from one another, gatherings such as parties, burials, extended family meals, schools, public transport, market, work place, worship centres like churches, mosque have high rate of spreading Covid-19 Viruses. ‘A micro droplet becomes more risky in close space and poor ventilation areas (Bloomfield et al 2009)’. Social distancing does not only reduce cross infection, but reduce embarrassment that comes from

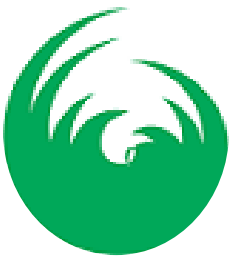
mouth and body odour. WHO also recommended lock-down as measure to prevent people transferring the disease to others.

- Proper Ventilation- Air is the first necessity of life. Man cannot survive without air. Covid-19 virus (coronaviruses) is produced in great quantity during sneezing and coughing. To reduce the risk of getting infected, proper ventilation is required, cool pure air from outside takes its place in ventilated area to neutralize the contaminated air. Preventing the spread of disease means breaking the chain of infection transmission. Therefore, stuffiness should be discouraged and allows natural ventilation with airflow WHO.
- Environmental Hygiene: Maintaining a good environmental hygiene (sanitation) should also be considered. Good environmental sanitation is a very big challenge in developing countries. Many live in a very dirty and unhygienic environment. Many disease causing agents live in filthy environment. They cause communicable diseases like Lassa fever, cholera, diarrhoea amongst others. Environmental Hygiene means keeping everything in our surrounding away from disease causing agents. Environmental hygiene is the control of environmental factors that form links in disease transmission “Environmental Sanitation is the control of all those factors in man’s physical environment which exercise or may exercise a deleterious effect on his physical development, health and survival (WHO)”.

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- Other measure put in place to control the transfer of this deadly infection is the restriction of movement which includes closure of boarder. This is because some infected individuals are asymptomatic and testing everyone would not be feasible. More so, there is no proven effective therapeutic or drug used for COVID-19 virus. Therefore prevention is the utmost.

CONCLUSION

Coronaviruses disease is a highly contagious disease that is ravaging the world today. It is a serious respiratory communicable infection whose spread is very rapid and has claimed many lives. There is no proven treatment or vaccination for now. Its effect has affected the global health, as well as the economic and social status of the people. To avoid further spread of the infection, WHO approved high hygiene practices such as washing of hands with soap and water and use of alcohol base sanitizer as often as possible, maintaining social and physical distancing, ban on public gathering like parties, schools, worship centres, open markets amongst others as measures to control the spread of COVID-19 virus. Maintenance of good hygiene practices have reduced the spread of this fetal infection and promote the he health of nation. Therefore, Hygiene Science should be encouraged and inculcated as part of academic curriculum.

References

- Achalu, E.I. (2008). Personal Health, Fitness and Environmental Hygiene. Nigeria Simarch.
- Allison, E. Aiello, Rebecca, M. Coulborn, B.S, Elaine, L, & Larson (2008). Effects of Hand Hygiene on infectious disease risk in the community setting: A meta-Analysis.

American Journal of Public Health.
American Public Health Association.

- Baker, k.k., Dil Farzana, F., Ferdous, F., Ahmed, S., kumar Das, S., Faruque, A.S.G., Nasrin,D., Kotloff, K.L., Nataro, J.P., Kolappas Wamy, K., & Levine, M.M. (2014). Association between Moderate-to-severe Diarrhea in young children in the Global Enteric Multi-Centre study (GEMS) and Types of Hand washing Materials used by

Caretakers in Mirzapur, Bangladesh. *American Journal of Tropical Medicine and Hygiene* 91 (1): 181-89 doi:10. 4269 ajtmh.13-0509 pmc 4080560. PMID 247781 93.

- Bloomfield, S. & Nath, K.J (2009). Use of ash and mud for hand washing in low income communities. International Scientific, forum on home Hygiene.

- Bloomfield, Sally, F., Aiello, Allison, E., Cookson, Barry. O' Boyle, Carol, Larson, & Elaine,

L. (2007). The effectiveness of hand Hygiene Procedures in reducing the risks of infections in home and community settings including hand sanitizers. *American journal of infection control.* 35(10): S 27-S64: doi:10.1016/ j. ajic 2007.07.001

- Cennimo, David (2020). Coronavirus disease 2019 (COVID-19). Medicine Medscape.com Emergency treatment of drinking water at the point of use (PDF) WHO 2011. <https://www.cribc.com/2020/03/16/who-considers-airborne-precautions-for->



medical-staff-after-study-shows-corona
virus-con-survive-in-air-html.

Research.

<https://www.nih.gov/coronavirus>.

Hygiene Overview: WHO 29 January 2020.

Insel, P.M & Roth, W.T. (2010). Core Concepts in Health. New York, McGraw Hill.

Science Daily (2020). COVID-19 Corona virus Epidemic has a natural origin. 17 March.

Jefferson, T., Foxlee, R., & Del Mar, C. et al (2007). Physical interventions to interrupt or Reduce the spread of respiratory viruses: systematic review, *British Medical Journal* 336 (7635) 77-80. doi.10.1136/ bmj 39393.510347. Pmc 2190272-Pmid 18042961

www.sciencedaily.com/

Wang, C., Horby, P.W., Hayden, F.G., & Gao, A. (2020). A Novel corona virus outbreak of global health concern. *The Lancet* (2020).

Jeroen, Ensink (2006). Health Impact of Hand Washing with Soap: well-Achieved from the original on 2010-06-19.

WHO (2009). Water Sanitation and Hygiene Standards for schools in low-coast settings (PDF).

Luby, S, Agboatalla, M., Feikiri, D.R. Painter, J., Billhimmer, W. Atref, A & Hoekstra, R.M. (2005). Effect of hand-washing on child health, randomized Control trials. *Lancet* 366 (9481): 225-33. doi:10.1016/50140-6736(05) 6691 2-7, Pmid 160253513.

WHO (2020). COVID-19- virtual Press Conference 30 March.

Luby, S., Agboatwalla, M., Schnell, B.M., Hoekstra, R.M, Rahbor, M.H., & Keswick, B.H. (2002). “The effect of antibacterial soap on impetigo incidence, Karachi Pakistan. *American Journal of Tropical Medical and Hygiene* 69(4) 430-35. doi: 10.4269/ ajtmh 2002.67.430 PMID 12452499.

World Health organization (2020). Coronavirus. <https://www.who>. Tropics/ coronavirus.

World Health Organization (2020). Severe Acute Respiratory Infections Treatment centre. Practical manual to set and Manage a Sari Treatment centre and a Sari Screening Facility in Health care facilities.

Muhammed Adnen Shereen and Siddique & Rabeea (2020). COVID-19 Infection Origin, Transmission and Characteristics of Human Coronaviruses. *Journal of Advance*

WHO (2020). 2019 Novel corona virus (2019-n Cov) strategic preparedness and response draft as of February 3,